Two treatises, the one medical, of the gout, and its nature more narrowly search'd into than hitherto; together with a new way of discharging the same / ... By Herman Busschof Senior ... The other partly chirurgical, partly medical; containing some observations and practices relating both to some extraordinary cases of women in travel; and to some other uncommon cases of diseases in both sexes. By Henry van Roonhuyse ... Englished out of Dutch. By a careful hand.

Contributors

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Publication/Creation

London : Printed by H.C. and are to be sold by Moses Pitt, 1676.

Persistent URL

https://wellcomecollection.org/works/e2453r6z

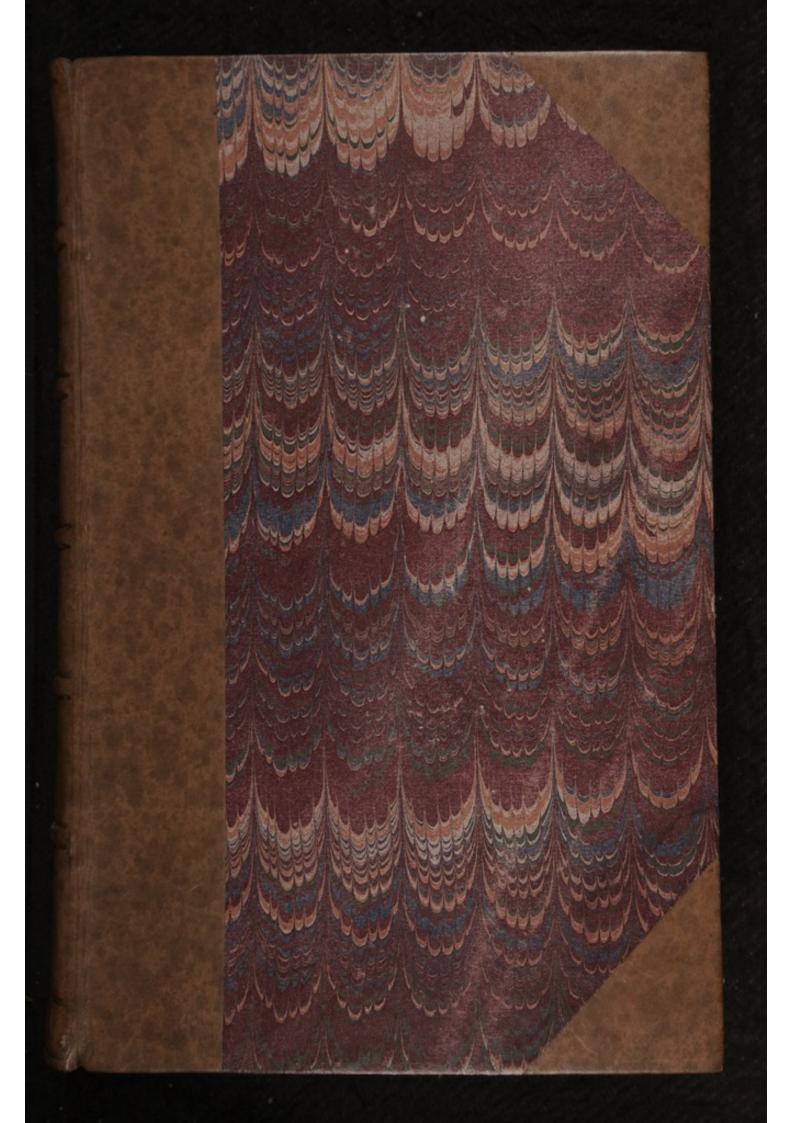
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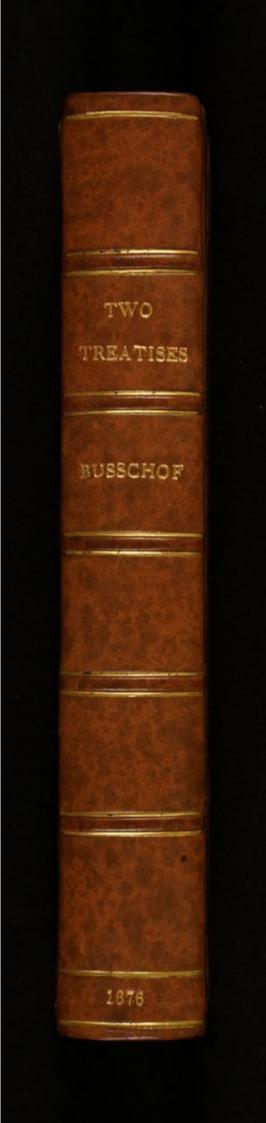
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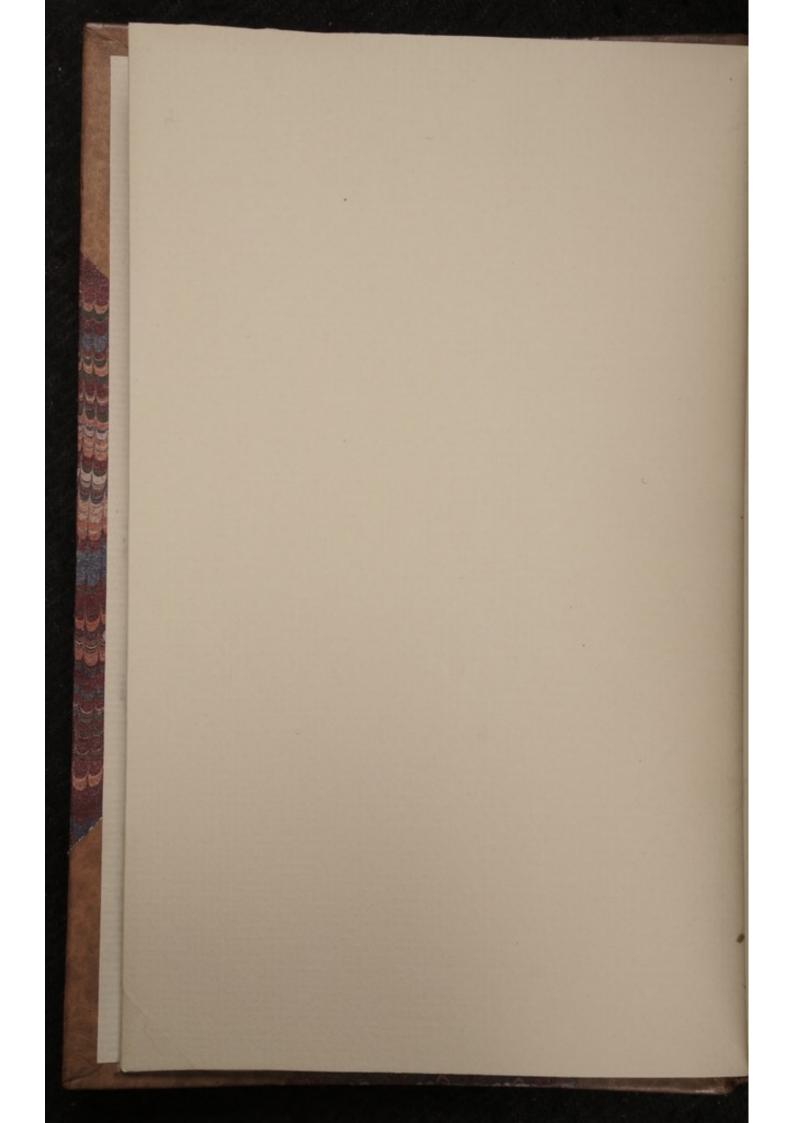


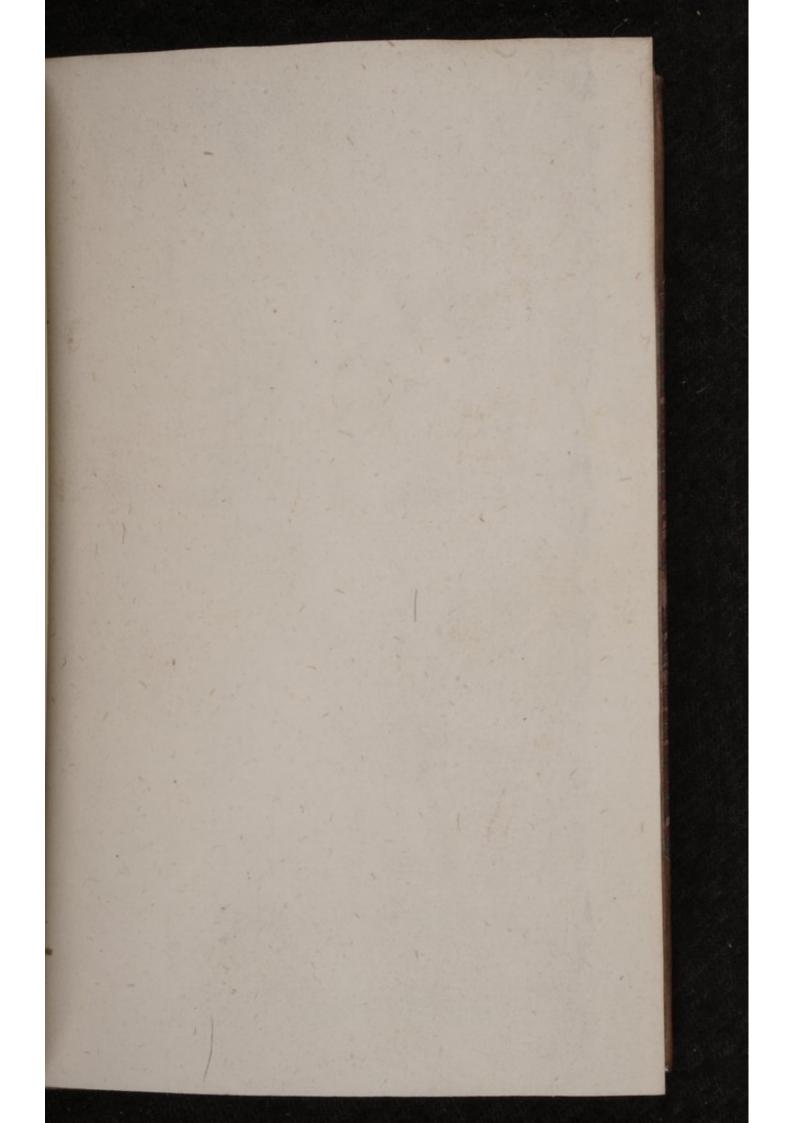


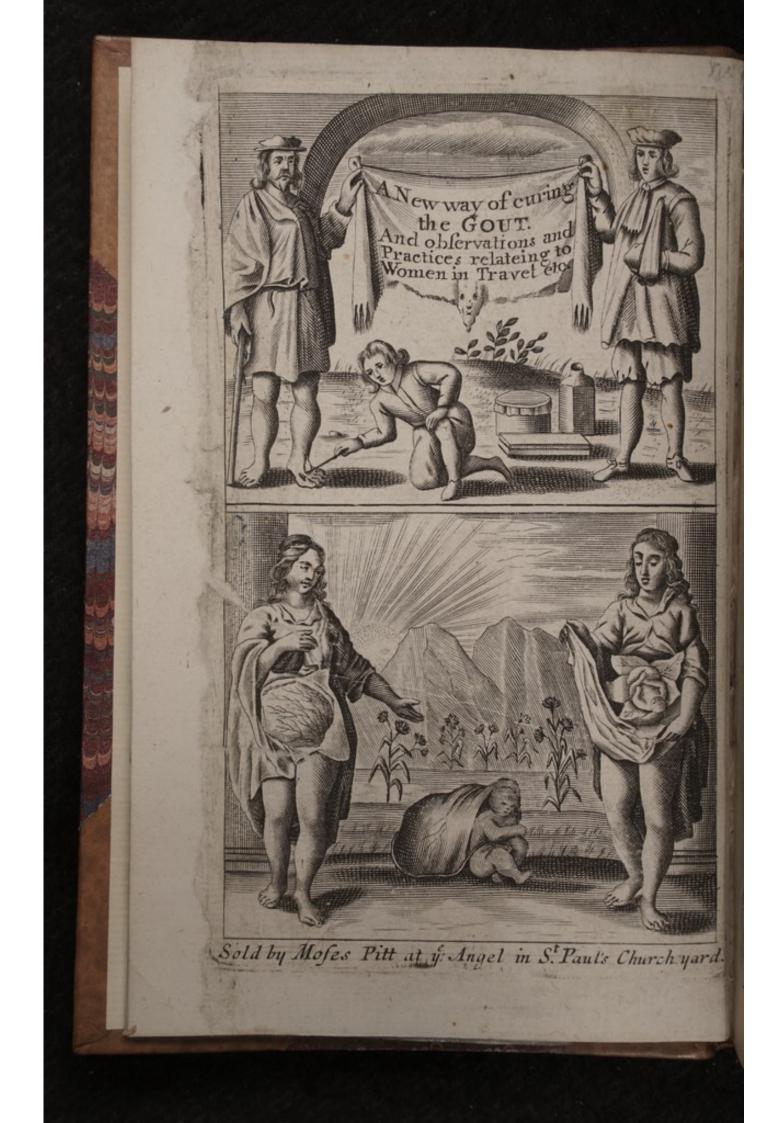


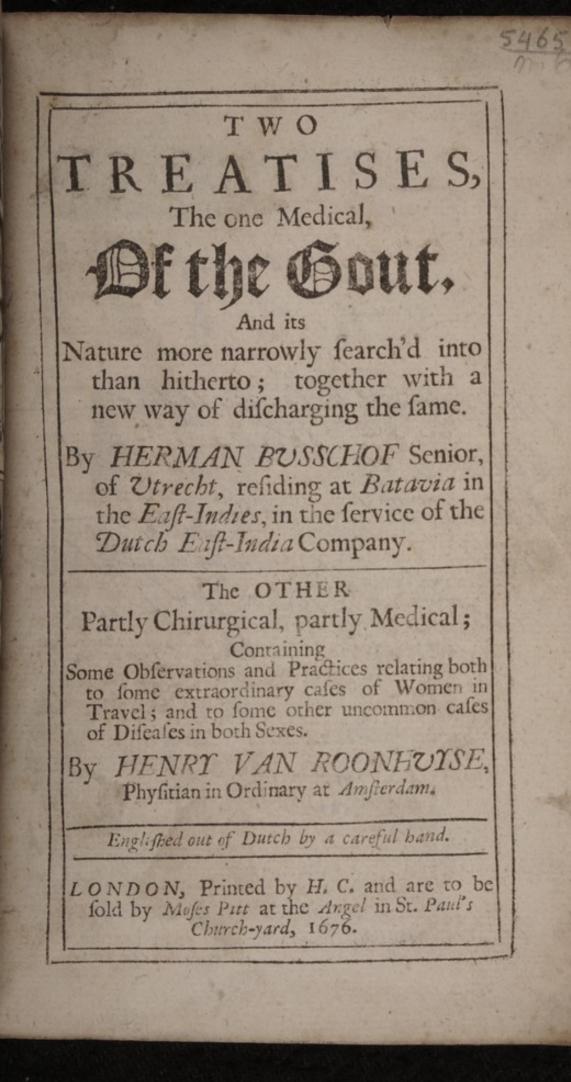
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READER.

IS now about 14 years fince I laboured under an extraordinary pain in both my knees and feet, not knowing whither to

turn my felf for pain, having used in vain all those means by which I formerly had found some ease. After I had paffed five or fix weeks in those excessive pains, which sometimes, in spight of my teeth, extorted tears from my eyes, and confumed my flesh as well as my strength, keeping me in a manner always sleepless; I was perswaded to suffer an Indian Doctress to come to me, which was of Quinam, (whom my Wife commonly employed for the curing of our flaves, and who also had been very successful in recovering my only daughter A 2

daughter from a certain difficulty of breathing she had been troubled with for two years together). This Indian woman being demanded, whether She knew how to cure that painful disease which I was molested with; Answered, she did. But to tell you the truth, it was done by a way of Burning : Which means being by me rejected, out of an apprehension I had of the pain that must needs accompany such a remedy; She faid, that then She would prepare something to mitigate the pains I suffered, and bring me such a medicine in the afternoon; repeating still, that if I would endure the Cauffick or Burning remedy, the pain Should ever after stay away: But, for all that, I could not then resolve upon it.

The woman being gone, upon further confideration, I began to repent that I had refused the use of her Caustick; and thought with my self, that however this proposed remedy should operate, I could feel but one pain at a time, either that of the Gout, or that

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of the Caustick; longing to see my Do-Etress again; who being returned, and asked, whether she had ready her matter for the Caustick, answered smiling, she had: At the same time drawing it forth out of her pocket, and desiring me that I would suffer her to try her art and skill upon me; which having at last agreed unto, the went prefently to work; having demanded a lighted candle, and folicitoully fearch'd for that part of the place affected where the greatest pain was: And thereupon the burned with her Moxa (of which hereafter) on my feet and knees, (to my best remembrance) about twenty little Escars, which looked like little gray specks, without raising any blisters, or causing any after-pain; whereupon also all the pain of the Gout vanishid. All this operation was finished within less than half an hour, without any bodies hearing me complain of pain. And I herewith declare, that even whilf the burning lasted, I found my self much inclined to fleep; and that in such a manner? that A 2

that after the operation was over, I was so overcome by sleep, that I slept very quietly near 24 hours together, without ever waking; whereas afore, by reason of the cruel pains, I had not been able to sleep at all for several days and nights together. Being awakened, I found, 'tis true, my feet and knees yet much swelled; but in a few days after I was also freed from those tumifying humours, by the little openings made by the same Caustick, so that I was able to return to the work of my vocation; most heartily thanking God Almighty for his goodness to me, and duly acknowledging the operation of this Indian woman, admiring withal the powerfulness of this remedyagainst so contumacious an evil, as is the Gout. There near passed full 27 months ere I heard any thing of a Gouty pain, and I began to be full of hope it would for ever have forgot and quitted me, according to the promise of my Do-Etres; which not long after, to my great forrow, died. True it is, that after the time named, I had once, or at most twice

twice in one year some grudgings of that disease; but never any sore fit : Only about four years ago, when I fell into a very hot Fever of nine days continuance, without hope of life, that Fever changed, and ended in the Gout; all the pains of which, in a very short time, I freed my felf from, by means of the faid Cauffick; fo that I protest candidly, that being now in a Fever again, I long as much and more for a fit of the Gout, as I formerly was wont to dread it; knowing it to be an argument of the strength of the heart, when a Fever determines in the Gout : Upon which score the famous Crato, Physitian to three Emperors, and the learned Sennertus, were wont to comfort Gouty men, by telling them that this evil tended to health.

Now, from the day that I was fo foon and with fo flight pains cured of the Gout, I have given my thoughts liberty to expatiate upon the nature of the Gout: And first of all, to call in question, whether Physitians hitherto have had a right notion, and given a A 4 true

true account of the nature and qualities of this difeafe: And after a rigorous enquiry into the matter, and upon the confideration of this fovereign remedy, I concluded, that this difeafe must needs have another immediate or proximate cause, seat, Sc. than had been hitherto by any man clearly explained and proved.

Whereupon I thought good to difcover to the world my thoughts of this whole matter, although at first I intended to have kept them only for my best friends and nearest relations. I think. I have herein detected some things for the improvement of Phylick, and for the relief of those that are subject to this disease, which else is by most men exclaimed against as incurable; and does so disfigure many a comely perfon, that he feems not to be the same he was before. In the doing whereof, my design is to do good to my fellow-creatures, and to lay out this talent for their ease and comfort; as also to open a way for intelligent and studious men to fearch into, and tind

find out the nature not only of the Gout, but allo of divers other diseases that have any affinity therewith; such as are Head-pains, Tooth-ach, Pleuristes, Colick, and even the Falling-sickness it self. As I shall be able, in time, if God vouchsafe me life, more clearly to make out; especially, if the truth here delivered be embraced, and this small work encouraged, and the remedy here recommended put in practice; which I heartily wish may be done according to my prescript, before it be prejudged, and rejected.

GOUT IS A COMMON

peccant matter of the

fe of the limbs, taking, its de-

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Advertife-

Of three very remarkable Cafes.

THE

More narrowly

SEARCHT, and FOUND out;

Together with

The certain CURE thereof.

CHAP. I.

Of the Gout, and what it is.

Theoph.

Have underftood with joy, Theodidactus, that you have a fingular opinion of the Gout, its Caufe, Seat, Paf-

fages and Ways; as alfo, that you know the true and genuine Remedy against this cruel Disease, which is also come to your door, no less than it

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it had affaulted your Father and Father-in-Law, who were fo grievoully tormented therewith, that they became altogether helplefs, and were fo fpent and confumed thereby, that before they arrived to any confiderable old age, they fell into their graves. Whereas I fee you, to admiration, advanced to fo great an age, and in fo much vigour, as if you had never known or had any Podagrical perfon in your Family, or among your Relations, or had never been subject your felf to that mercilefs difeafe. Hence it is, that I most heartily intreat you, that you would be pleafed to explain this matter to me, according to the good inclinations, which I have always perceived in you, of doing good to your Neighbour.

Theodud. My dear Theophilus, although in doing this I ftep fomewhat out of my Vocation; yet Chriftian charity conftrains me to comply with your defires herein, and rot to confine this knowledg of mine to my particular I riends and Relations; on condition

dition only, that at this time you do ask me no more questions, than what shall be pertinent to make us come to the knowledg of the *Gout* and the *Remedy* thereof.

Theoph. I most kindly thank you for your goodness, and promise you to contain my felf within the bounds prescribed.

Theodid. Very well; be pleafed therefore to propose your questions in that order, and I shall answer you to the best of my knowledg.

Theoph. To recover gouty perfons, and to free them from their pains (without which all the bleffings of this life are infignificant,) what is above all things neceffary ?

Anfw. To have a thorow knowledg of the Difeafe and of the true Remedy thereof; both which are equally neceffary, infomuch that the one without the other is not valuable.

Quest. Why is it, that for accomplishing a happy Cure, there is first of all required a well-grounded know-ledg of the Disease? B An.

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An. Becaufe 'tis impoffible to cure a difeafe according to Art, if the nature thereof be hid from the Artift : And the want of this is the chief reafon, why the care and pains taken by fo many learned Phyfitians hath proved fo ineffectual in the Gout.

Qu. What then are the Requisites to attain to the true knowledg of this Difease?

An. There is required a folid knowledg of these following particulars :

1. Of the next and ever-concomitant Caufe of the Gout.

2. Of the Seat of this Evil.

3. Of the Part affected.

4. Of the Ways and Passes, through which this Evil takes its course.

5. What are the inseparable signs thereof?

6. What Symptoms commonly accompany it?

7. That the Symptoms of this Difease be rightly distinguished.

If you err not in these main points, you

you are in the right way of arriving to a happy cure of this Malady.

Qu. Do you understand by the name of Gout, all pain in the Limbs? An. No; but that pain which in sharpness and fierceness exceeds all other, and that which I mean to describe.

Qu. To let pass the name of the Gout, pray give me a full and plain description of the Discase it felf?

An. The Gout is a preternatural, inward, deep-lurking, and for the most part invisible little swelling within in the periostium, that is, the membrane that enwraps all Bones; caufed from a dry and cold ill-natured damp or vapor, which out of the arteries, by the expelling vertue of the heart, is driven out into the place that is between the bone and the periostium, for the most part into fuch Limbs of the Body as are about the Joints; in which this vapor being and remaining impacted and inclosed, and distending that most sensible membrane, produces those violent and intolerable 12 B

tolerable pains, whereby the motion of those Limbs is incumbred and dispoiled, and many other grievous accidents occasioned.

Qu. Doth this description differ much from that which hath been hitherto delivered of this Disease?

An. It doth: Whence it is, that I exceedingly apprehend, I shall incur sharp censures from many.

Qu. But let this pass; let us weigh rather your description in its principal parts. And, First, I do remember, that you make the Gout to be a preternatural fwelling; whereby you doubtlefs imply, that the Gout is a Difeafe wherein violence is done to nature in fome part or other of the Body. But this is a novelty to me, that you add, viz. that it is an inward deeplurking, and for the most part invisible little swelling, and that that fwelling is caufed by a damp, Sc. intreating you, that you would vouchfafe to express this more plain, and to render reasons thereof. And first, why you call it an internal and deetlurking tumor ? An.

An. The better to diftinguish it from other windy fwellings, in refpect of its feat : For, whereas those other lye between the flesh and skin, this lies deep, underneath the membrane that covers the bone; as hereafter shall be more largely proved.

Qu. But why do you add, that it is a little and mostly invisible swelling ?

An. Becaufe it is fo indeed.

Qu. But pray, Sir, take care that you run not against sense, out of a blind zeal of producing a novelty. For, is not the tumor which manifefts it felf in the Gout, big and confpicuous enough?

An. You do not diftinguish between the Difease it self and the Symtom, which is the flumbling ftone of many even learn'd men. And the want of this very diffinction feems to me to have been the main, if not the only obstacle, why they have not lighted upon the true cause of the Gout, and why they have taken quid pro quo? Ju.

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Qu. What then is to be done, not to mistake herein?

An. You must ever make a difference between the fwelling, which is caufed by the morbific gouty matter, and that which is confequent to the Gout; and this is to be laid as a fundamental Truth, never to be remov'd, viz. That the humour, which makes the external palpable and vifible fwelling in the Gout, is not the Gout or dolorifique matter. Which are not fo much my words, as the words of that famous Phyfitian of Dort, called John Van Beverwyck. deliver'd by him in his Book of the Gout, and which he hath borrow'd out of the description of that disease, which that learned and experienced Professor of Physick at Wittenberg, Daniel Sennertus, left behind him. Which alfo is the reason that I shall place that aqueous and ferous tumor amongst the fymptoms of the Gout; where also it is to be handled, and not here, where we fpeak of the Difease it self.

Qu. What,

Qu. What, is not the humor, that causes the outward and visible swelling, the Gout or dolorific matter?

A. No, they differ very much from one another, and may be fufficiently diftinguisht by those that will attentively confider.

Qu. Wherein consists this diffe-

Anf. In this, that the one is the cause of the Disease, the other a symptom; which will be made very clear, when we shall come to treat of this lymptom. But in part to fatisfie your curiofity, pray mark the ratiocination of the lately named Beverwyck, faying in the quoted Book : That the bumour which makes the fwelling, is not properly the peccant matter, is from hence evident; because that in the beginning, before the part swells, the greatest pain is felt, and the same grows less, when the swelling appears. Tis true, that that learned man adhereth still to the opinion of the faltish Serum, affirming that it is a ferous humor, pervaded by a falin acrimony B 4

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mony, that caufes the Gout. But herein he, as well as the great Semmertus, hath miftaken. Mean time, 'tis certain, that the external tumor is not the morbid matter it felf, for the reafon given; and, which is more, fome podagrical perfons endure great pain, without the appearance of any visible fwelling.

CHAP. II.

Of the inward Tumour of the Gout, and how it is mostly invisible.

Qu. I Shall for the prefent reft contented with the proof alledged, until we come to the *fymptoms*: But, when this fymptomatical or accidental fwelling of the Gout is prefent, do you then obferve two forts of fwelling in this Difeafe, one *inward*, the other *outward*?

An. I do fo; of which two, the first is that which I fay in the description to be a swelling that is little, and for the most part invisible? Qu,

Of the GOUT. II Qu. Why do you fay fo? An. Becaufe it is indeed fmall, and for the most part cannot be seen by the sharpest eye of the body, though it be feen by the eye of reafon. For, although you outwardly perceive no fwelling, you may not thence infer, that there lurks none within, forafmuch as the contrary is true in these and other fwellings. See the proof hereof in a couple of observations of the skilful Phyfitian and Chirurgian Hildanus in his fecond Part, the 37th. and 38th. concerning dangerous and defperate tumors in the muscles of the flomach, in which nothing preternatural of fwelling, or other diforder could be feen outwardly.

Qu. If this tumor cannot be perceived by the eye, whence do you then know that there is an inward one?

An. From the violent, pungent, beating, diftending, and continual pain, to be eafily perceived by ones finger.

Qu. But, it seems, by what you intimate

timate in the defcription of the Gout, that fometimes this tumor may be feen?

An. Yes, it may; for at times it appears plainly enough, though few Artifts take it for a gouty fwelling, mifled by the external appearance of it, which is in the form of a fmall hard pimple on the place of the part affected; of which you have a manifeft proof in *Pareus*, the French Chirurgian, treating of a diffemper in a young woman at *Bourdeaux*, that had fuch a tumor on her thigh; though *Pareus* doth not record it for fuch.

Qu. When may this tumor be perceived by the eye?

An. Then chiefly, when the gouty caufe attacks the Patient, not about the joints of the limbs, but in or about the middle of those places, with a boyling pain, wherein nature labours as much as she can (though she be not strong enough) to expel the peccant matter. At which time, if you observe it carefully, some tumor appears, as

Ofthe GOUT. 13 as was faid above. This I have found not only in my felf, but very notably in another, that was a young man, employed here in the Foundery of Batavia, called Martyn Smith of Breflaw, who having the Gout in his right foot, without a confiderable afflux of humors, the evil fetled on the midst of his foot, in the form of a protuberant hard pimple or button: Which I alfo, by the help of God, did prefently cure, fo that he the fame hour, without any pain, went out of the houfe to his Work-houfe, which can be attefted by the Phyfitian Thomas Flory, and the chief Chirurgian Warner Leuretius, as eye-witnesses, that faw it with great admiration.

CHAP. III

Of the next and always concomitans Cause of the Gout

After you have fufficiently made out, that the gouty matter

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matter caufes a fwelling, for the moft part invifible; be pleafed to explain to us what is the next and always accompanying caufe of this tumour; which to know, I think to be of great importance.

An. You judg aright; forafmuch as the Cure hath always a refpect to the Caufe of the difeafe; and fince 'tis in vain to hope for a recovery, as long as there is an error or mistake about the peccant or gouty matter.

Qu. Have Phyfitians been of one opinion herein?

An. No : For fome have affigned the caufe to be a flimy and cold humor; fome, a mixture of gall and flime; fome, a crude, indigetted and impure blood; others, a ferous humidity, mix'd with an acrimonious faltnefs; others, winds, with a mixture of the four known humours; others, ill-conditioned winds alone.

Qu. Whence, I pray, arifeth this great diversity of opinions?

An. From thence only, that (28 hath been already intimated) they have

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have not diftinguish'd the Gout from its (ymptoms; which hath so abused them with the notion of the humors, that they have put those out of the lift of gouty perfons, who in their Gout perceived no afflux of humors, absolutely requiring the same in this difease; notwithstanding that such as find no serous swellings in their gouty distemper, do feel full as much pain as others that are wont to find that afflux, whose grievous pains also are considerably abated upon the swelling.

Qu. Which then is, in your judgment, the next and *immediat Caufe*?

An. We have expressed it in our above-recited description of the Gout, to wit, that it is a Vapor or Damp, dry and cold, and mixed with malignity.

Qu. But many will look upon this as an airy and windy fancy, and no folid truth.

An. If men shall devest themselves of prejudice, and maturely consider all what hath been said, and is yet to follow

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follow; I shall then expect a more favourable judgment, and an unanimous confent to my doctrine.

Qu. According to your theory, the Gout is to be reckoned among Windy fwellings?

An. So it must be, because grounded upon experience, the Mistress of Fools.

Qu. But is not this a quite new opinion; or hath there ever been any learned man that hath delivered the fame?

An. When I lately enumerated unto you the various opinions concerning the caufe of the Gout, you may remember, that the laft of them was that which placeth it in meer winds, Now, among those Doctors, Sennertus reckons Guainerius and Mattheus de Gradibus, two eminent Physitians ; and, as far as I can find, the Chinese Doctors are all of that mind. Besides, that ancient Physitian, Guido de Culiaca (though in the Gout he follows the Hamorists) relates, that he had read in some prescriptions of health

Of the ED U.I. 17

health given to the Popes of Rome, that this difeafe did arife from winds; and the Royal Chirurgian Parens, p. 534. affigns, for the certain caufe of the running Gout, a very thin fuliginous matter, which is nothing elfe but a fubtile fmoaky damp, or fpirituous fubftance.

Qu. But Pareus doth not speak fo of the other kind of Gout.

Anf. 'Tis true, that he affirms it of the running Gout ; but then I must fay, that that kind doth not at all in its effence, or next cause, differ from the other Gout, but only in fome qualities, relating to the thinnefs and thickness of damps ; those, from whence proceeds the running Gour, thinner and fubtler; and those which caufe the other Gout, courfer and thicker. And 'tis notorious, that almost all intelligent Physitians assign damps for the next caufe of Toothaches, Head-aches, Pleurifies (at leaft bastard Pleurisies), Colicks, and Epilepfies : Difeafes which in name indeed, place, and fome fymptoms, differ

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fer from the Gout, but not in their true effence; they being fo near a-kin to one another, that they acknowledg but one and the fame caufe.

Qu. 'Tis true, that fome learned men have affirmed, winds or damps to be the next caufe of the Gout; but others have rejected that opinion, and for their ground of doing fo, I shall produce but one argument for all, which M. Beverwyck alledgeth out of Sennertus in his Treatife of the Gout, faying, All sicknesses which arife from winds, do not last fo long as the Gout ; and making use of this reason for his denying the flatus or winds to be the true Caufe of the Gout. And further in his Medicina. p. 62. treating of Tumors in general, he declares, That the windy swellings do vanifb easieft of all. What you can fay to this objection, I long to hear.

Anf. Those great men speak here only in general of windy tumors; and what they say is only true of such windy swellings as lurk under the skin. Df the G D U.T. 19 skin, or in fleshy parts; not in those that lie in deep parts, and under firm and thick membranes, as in the Gout, and other hidden or manifest swellings, raised from latent winds : See the proof hereof in Hildanus, p. 6. obs. 40. in a Tympanites that was refractory to all remedies.

Qu. What then is the true caufe why the Gout is fo long a curing? Is the gouty caufe (the damp) io difficult to be with fpeed removed and evaporated?

Anf. The gouty damp is eafy enough to be evacuated, and 'tis even forward to be exhaled; but there is a notable obftacle which hinders the fpeedy performance of it. And that is this; The impacted and inclofed damp, which caufeth the windy tumor in the Gout, feeks a paffage to iffue out at, but finds none; partly becaufe of the grofnels of the damp; partly and chiefly by reafon of the clofe and firm membrane of the bone, under which it lurks; efpecially fince the place, in which this cold damp C lodgeth,

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lodgeth, enjoys but little warmth, for the attenuating of this grofs damp, and expelling it through the fmall porce of that membrane.

Qu. But, I pray, Sir, let me know what is the chief motive that hath induced you to make Damps the only next cause of the Gout?

Anf. First, This remedy which I here offer, as that which fuddenly cures this difeafe : For, if it be true, that the Medicine declares the Difease, as Physitians affirm with their Mafter Hippocrates; I must then conclude, that no humors, but only a Spirituous thing, is the caufe of this Difease. Secondly, observing the sudden motion of the gouty matter. fometimes diflodging in a very fhort time from one limb to another, from the hand to the foot, from one foot to the other, Sc. flying as 'twere with fwift wings from above to beneath, and back again; I find my felf obliged to judg, that these are not Humors, but fome Spirituous matter able to do fuch things.

CHAT!

Of the GOUT! 21

CHAP. IV.

which gouny perfons, a

Of the Qualities of the damps that cause the Gout.

Qu. OF what quality, I pray, are thefe gouty Damps? An(. The above-recited defcription

faith, that they are dry, cold, and illconditioned.

Qu. Why do you fay they are dry?

Anf. The better to diffinguish these Damps from windy Humors.

Qu. Why cold? Is there not a hot as well as a cold Gout?

Anf. As there is but one next caufe, which for quality is always cold; fo is the diffinction of a hot and cold Gout, vain: My opinion agreeing with that of *Fermelius*, that all Gout arifes from a cold caufe.

Qu. But with what reasons can you maintain this opinion?

Anf. Irrefragably by the remedy it felf; as also by the pruriency and C_2 thiver-

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fluivering which gouty perfons, upon the motion of this cold damp, do commonly feel, efpecially in those parts through which it takes its courfe; as alfo happens in Epilepsies, Pleuristes, Coluck, and the like, that come from cold damps.

Qu. But foft and fair: Your last proof taken from *Inivering* doth not hold, as *Beverwyck* objects; for then should the matter of hot Fevers be alfo cold, which passing through parts endowed with the sense of feeling, not only cau'e shivering, but also classing of teeth.

Anf. This is not faid from wellgrounded knowledg; fince it hath never yet (that I know) been fatisfactorily proved, that *Hot Fevers* (as they are called) muft needs proceed from an hot caufe; and upon a thorough difquifition, it might perhaps be found, that they have been produced from fome cold matter or other; which I think at leaft to be half proved, becaufe fomctimes an hot Fever ends in the Gout; as I have found, not

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not to go far, in my felf, when I was in the 50th. year of my age. It fometimes also comes to pais, that the Gout determines in an hot Fever; as appears from what Beverwyck faith in his Book of the Gout, p. 110. speaking of the ways through which the gouty matter takes its course. The damp, faith he, turns back into the veins, and afcends up again to the noble part (meaning the heart,) where it raises bot Fevers, Anguish, and the like evils; or Shoots Suddenly into some other limb, whereby the pain that is in the hand, is foon after jelt in the foot.

Qu. But is not that notable inflammation, which is often feen and felt in the Gout, fufficient proof that there is a fort of Gout which comes from heat ?

Anf. This is a Symptom or accident in the Gout, which is not cauled by the next and always accompanying caufe of it, but by the violent pain; as I shall more clearly make out, when I come to speak of this Symptom:

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But 'tis a Symptom, (not to pass that by in this place) which hath ftrangely misled those who have mistaken it for a mark of the Gout, as *Sennertus* and others do acknowledg.

Qu. Is this damp also ill-conditioned and malignant?

Ans. So 'tis judged by confiderable and experienced men, as well as by my felf, and that from the intolerable pain and other accidents. So doth that old Master Guido de Culiaco ; and Pareus in his 7th. Book, ch. 2. proves it by two Examples; and our new Medicine confirms the fame. Befides, the fætid damps of the Gout do plainly fpeak this malignity, which is perceived both at the time of the act of burning, and after it; that being fuch, that fometimes both the Patient, and the Perfon that administers the Cauflick, and dreffes the part, are ready to fall away. And this is most of all found at the dreffing of the little wounds, when they begin to omit good store of moisture. For as foon as you shall in a morning open the little

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litrle Plaisters, you will be so ftruck with a strange stinking smell, that it will almost cast you into a swound. 'Tis very probable, that this stuff is already malign before it be cast out from the heart into the limbs; yet remaining for a while wedged in the limbs, from the evaporation obstructed, its malignity is heightned. Hence it is not advisable, to ferve this burning or dressing upon any one that is fasting; but its best, that both the Patient and the Agent should first breakfast, and take a cordial.

Qu. But, is it possible for Winds to occasion to much mischief?

Anf. Very poffible ; and then efpecially, when they are more peccant by their quality than quantity : So *Hippoerates* in his golden Tract of *Flatus's* doth not without caufe judg of Winds, that most of all the grievous and dangerous Difeases owe their original to them.

Qu. But can Winds breed fuch viclent pain ?

Anf. They can; chiefly when the C 4 mem-

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membranes (the main inftrument of the fense of Feeling) are by them attacked and distended.

CHAP. V.

Of the Part affected, and Seat of the Gouty matter.

Qu. WHich then, in this painful Difeafe, is the part that is attacked and offended by thefe Winds?

Anf. Principally, if not only, that fenfible membrane called the *periofti*um, that is, that membrane which immediatly covers the bones.

Qu. Do you not think, that the membranous ligaments do alfo fuffer here, or rather the membranes of the ligaments?

Anf. No; but I agree herein with Galen, that they have no feeling; the which is also confirm'd by the learned Barbette in his Praxis, chap. 5. P. 30.

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Qu. What do you understand by the Peri-oftium?

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Anf. That fingle membrane or film, whereby the Author of Nature hath outwardly invefted and covered all the bones of our body, and which is a clofe and firm fubftance, extendible, and very fenfible.

Qu. Doth the gouty matter fall from without upon this fensible perioftrum, fretting and biting it by its acrimony?

Anf. Not fo; for then it could not caufe fo intolerable a pain, or the right Gout.

Qu. Where then are we to look for the true feat of the gouty matter?

Anf. No-where elfe but between the membrane and the bone.

Qu. Wherein then confifts the genuine effence of this Difease?

Anf. In the violent diffension or ftretching of this fensible membrane by the Winds, whereby this membrane being forced out of its due and natural form and fituation, excites fo violent a pain. Qu.

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Qu. Whence do you infer that the gouty matter lies fo deep, and particularly between the membrane and the bone it felf?

Anf. Not only from the diffending pain, (which is to me proof fufficient) but also from the contumaciousness of the Gout, which made Hippocrates fay in his 6th. Book, aph. 49. That the Gouty fit doth not cease before the fortieth day. And truly, whereas all other windy tumors, that are not lodged fo deep, are in a fhort time made to evaporate ; this windy fwelling of the Gout lying fo deep, and lucking under fo firm and clofe a membrane, (and befides, in a place of little warmth, and it felf coming from a cold caufe) cannot be eafily brought to a quick evaporation, but by fuch a kind of remedy as ours is.

Qu. Have not the old and new Mafters mislaken the Part affected, and the true Seat of the Gout?

Anf. Certainly they have: For, (to fpeak of the part affected, and the feat together,) I must first alledge the opiniOf the G O U.Z. 29 opinion of Galen, (as 'tis cited by Beverwyck;) he affirming, that the gouty moisture doth flow into the hollow of the joynts, and there forces afunder the bones; whereby the ligaments and membranes, that fasten them together, are so violently expanded, that they cause that excessive pain.

Qu. Hath this fentiment of the great Galen been generally judged and received to be conform to truth?

Anf. It hath been rejected by many, as by *Beverwyck* and others; and by others maintained.

Qu. Where do those that contradict Galen, find the Part affected, and the Seat?

Anf. In the ligaments and membranes that tye the bones together, being penetrated and ouzed thorough by a fharp humor.

Qu. What hath moved those that are of the later opinion, to reject Galen's Doctrine?

Anf. See and read Beverwyck and others.

Qu.

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Qu. But how doth Galen refute their opinion, who fay, that the gouty matter ouzeth thorough the ligaments and membranes?

Anf. Thus, that never a gouty perfon hath been perceived to have convultions or drawings of the limbs : Which yet must needs happen, if the warm humor did pass through the ligaments and membranes.

Qu. But these alledge, to strengthen their opinion; First, that the pain, as soon as the limb is but touched, prefently increaseth. Secondly, the debility and troublesome motion of the part. Lastly, the laxity of the ligaments, which being ouzed thorough by the humor, do stretch, and sometimes cause diflocation, Are not these folid reasons to personale you and all others that they have hit right?

Anf. Not at all; for their proof is lame in all its parts. And, not to repeat the irrefragable proof of Galen against their opinion, the pain doth not increase when the limb is but touch'd and moved, because, forfooth !

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footh ! the gouty matter hath ouzed through the ligaments and membranes : No ; for, not these, but the periostium is the part affected in this evil, which being by the gouty damp already diftended, is upon the touching, or least motion of the limb, irritated a new, and fo caufeth new pain. Where I establish this for a certain truth, that never the gouty matter, but only the accidental affluxed humor ouzeth through the ligaments, fo as to occafion stretching and dislocation: Which we intend more fully to make out, when we come to fpeak of this accident of diflocation.

Qu. But against Galen's proof, the defenders of this opinion alledge, that 'tis no ftrange thing, that the acrimonious humor of the Gout ouzing through the ligaments of the joynts, caufeth no drawing in the limbs, because, say they, the nerves themselves are not offended, but only the membranes and membranous ligaments, which do not caufe the motion; and that therefore, although they are

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are feized with great pain, they caufe no convultion; just as 'tis alfo found in the Tooth-ach, Pleurifie, and Colick.

Anf. This is an exception that concludes nothing, for a finuch as the Gouty matter provokes not the organs of Motion, but there of Senfe.

Where I cliablift this

THER. That no

CHAP. VI. da vino and

That the Gout is a general Disease of the limbs, receiving its denomination from that limb which it seizes on; together with the place in which the Gouty matter is bred.

Qu. IS the Gout a general Disease, (as Galen affirms) attacking all the joynts of the limbs of the body?

Anf. It is fo general, that not one external part of any limb of the whole body is by its own nature exempt from it. The reafon is, becaufe that all parts and limbs are wrapped about

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about with this fenfible membrane, called Periostium, the head, neck, jaw-bones, breft, back, and the teeth themselves, forafmuch as they are inclofed in their groves or pits.

Qu. Doth this Disease take different names, according to the limb which it infefts ?

Anf. It doth fo : Hence 'tis' called Podagra, when it falls upon the feet; Gonagra, when upon the knees; Chiragra, when upon the hands; Ichiatica, when upon the hips: And fo, the Tooth-ach, when upon the teeth; the Pleurisse, when upon the skin that clothes the ribs, Sc. All which I efteem to proceed from one and the fame cause; though many will think this strange.

Qu. What is the antecedent caufe of the Gout?

Ans. Whatfoever breeds these damps.

Qu. In what place grows this damp, being the next caufe of the Gout?

Anf. The learned do as little agree in this, as they do in the next cause it

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it felf; and *Fernelius* complains, that no man had thoroughly fearched into this point, and that through the want of the knowledg thereot, the Gout had been left for incurable.

Qu. Is this peccant matter bred only in the head, excepting the skull, as Fernelius would have it; or without the brain, as others think; or most of all in the Viscera, as the stomach, spleen, liver, gall, and the rest?

Anf. I give my voice for those that affirm the last, viz. that these Gouty damps are mostly generated in the inner parts, yet not excepting the head.

Qu. But can you tell, Sir, in what manner they are there produced?

Anf. Doubtless they are, through want of heat, gathered and laid up in some or other of the aforementioned parts from corrupted humors, and particularly from corrupted blood.

CHAP.

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CHAP. VII.

How, and through which ways, the Gouty matter comes to the Limbs.

Qu. Since these morbid damps do Scause such grievous pains in the external limbs, but are bred in the inner parts; by what means and pafsages do they come to those limbs? An. By means of the Circulation of the blood through the manifest ways of veins and arteries.

Qu. Do not these damps ascend or descend directly into the limbs, without passing the heart?

An. They must needs first pass into the heart.

Qu. By what ways?

An. Through the veins, which, gathering out of the inner parts the generated damps, carry them, together with the not yet fufficiently concocted blood, into the heart.

Qu. But do not these malign damps offend that noble part, seeing they D cause

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caufe fuch grievous pains in the limbs?

Anf. Certainly they do; and are the caufe of Fevers, beating of the heart, and other diftempers; and frequently caufe death, when the heart wants ftrength and vigor to expel them.

CHAP. VIII. Of the Expelling Part.

Qu. IS the heart then the only firong expelling part, which drives those damps into the limbs?

An. It is, as is evinced by the ftrong motion and beating of the arteries in the Gout; whereby the heart labours to deliver it felf from fuch a pernicious damp, and to difcharge and purifie the nourifhing blood of the fame.

Qu. Through what ways doth the heart drive out these damps into the limbs ?

An.

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An. Through the arteries.

Qu. Whence is it, that the Gout for the most part manifests it self in the extremities of the limbs of the body, as (for example) in the great Toe of the left Foot?

An. Because that the heart, undertaking the expulsion, drives this offenfive matter as far as it can.

Qu. May one from the Gout judg of the vigor and debility of the heart ?

An. You may probably do fo from the fuffering part : For, if that be far m from the heart, then the heart is ftrong; We if near it, then 'tis lefs vigorous, and unable to fend that noxious matter non far away.

Qu. But when the heart through the arteries doth expel into the limbs, together with the nourishing blood, these damps; must those limbs receive them ?

An. They must receive them as well as the nutritive blood which accompanies it; the heart expelling them chiefly by the force of the ar-D 2

teries,

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teries, nor resting till they be thrust out.

Qu. But why doth not the part aggrieved expel those damps, and fend them further away?

An. Sometimes it doth fo; namely, when the expelling force of fuch a limb is flrong and vigorous; for then it fuffers not this bad gueft to harbour there, but forces it by the veins to retreat back to the heart; whence it not feldom comes to pafs, that by another expulsion from the heart it falls upon a weaker limb; as we fee, that the pain which at first was felt in the hand, foon after is found in the foot, \mathfrak{Sc} .

Qu. When and how comes it to pass, that the limb is not able to drive or fend away this peccant matter, but is constrained to lodge that unwelcome guest?

An. When the expelling vertue and the natural heat of that limb is defective, and too weak.

Qu. But, Sir, can you fully make it out, that these malign damps take their Df the G DUX. 39 their course to the limbs, only through the arteries?

An. I can, my reafons being thefe: First, I prove it by the beating pain, which, amongft others, is in the Gout one of the fure marks; for, that beating pain fufficiently shews, that the Gouty matter comes out of the arteries. Secondly, 'tis plain from the swelling, distension, and quick pulfation of the arteries, as those through which this matter takes its course. Lastly, 'tis most evident from that remedy, which hath been used by the ancient famous Physitians, as likewise from our discharging medicine.

Qu. What remedy of the Ancients do you mean?

Anf. That of Arteriotomy, or the opening of Arteries; by means whereof, they declare to have found incomparable more help and eafe for the gouty Patient, than from the opening of veins; for a proof, that the gouty matter is protruded from the heart through the arteries.

Qu

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Qu. But how doth it appear from your own Remedy?

An. Forafmuch as the fame being applied to the Arteries, (when they by their firong pullation give fufficient affurance that the peccant matter is not yet quite expelled, but in part ftill harbours there,) fetches out that offenfive ftuff, and frees them therefrom; as we fhall more plainly fhew in our manner of curing the *Tooth-ach*: where it will manifeftly appear, that this Burning of ours is not only a difcharging, but alfo an excellent exhausting aid, forcing thefe damps in the arteries and veins to evaporate.

Qu. Doth this painful matter caufe no pain as long as it is included within the coats of the arteries ?

An. It caufes no pain until it does violence to the *perioftum*, becaufe the tunicles of the veins and arteries are void of feeling.

Qu. When the Arteries (in those that already feel great pain) do not cease to beat strongly, what conclude you thence ? An.

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An. That the Gouty matter in part still rests in the arteries.

Qu. May this matter be totally expelled out of the arteries ?

An. Not only it may; but the heart, as the fource of the arteries, never refts till it hath effected it.

Qu. Can this damp of it felf, or by too firongly repercutient means, be turned back again through the arteries to the heart ?

An. Some indeed are of opinion that it can; but I fay that 'tis not possible: Nature, or rather the wife Author of it, having provided certain valves, which towards the heart are shut, and so hinder the return of blood and vapors thither through those veffels.

Qu. Through what veffels then returns this damp to the heart, as it often doth?

An. Through the veins, the Antagonists (as one calls them) of the Arteries; for this way is open and unobstructed, all the valves of them towards the heart being open.

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Qu,

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Qu. How comes it to pass that this damp returns to the heart?

An. Either when the expelling virtue, and the natural heat of the part that receives the damp is great; or when ftrong repelling means are unwarily applied; by which latter way the Patient is exceedingly prejudiced, becaufe thereby the pernicious damp is made to return to the heart, which with fo much labour had difcharged it felf from it; and there it caufes Fevers, Anguifh, and the like diftempers, and often Death it felf.

CHAP. IX. Of the Diagnosticks, or Signs of the Gout.

Qu. IS it necessary to know the proper Signs of the Gout ?

An. Certainly it is; forafmuch as those only are fit to cure the Gout, who know well the proper Signs thereof.

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Qu. Hath there been no mistake herein hitherto?

An. There hath; for men have made those to be figns of the Gout that are none, as Inflammation, Heat, Fever, $\mathfrak{G}c$.

Qu. Which then, in your opinion, are the proper figns whereby the Gout can be best distinguished from other distempers?

An. Vitiated motion and Pain: which figns are prefent from the beginning of the Gout, and as 'twere born with it, and do grow up with the fame to its height, and abate alfo and vanish with it.

Qu. Are thefe the only and always concomitant figns, by which we may know this inward, and, for the most part, unfeen windy tumor?

An. They are fo; though fwollen veins, and ftrong beating arteries, may also be put for figns of the fame.

Qu. Those two first, are they Signs only, or also Symptoms?

An. They are fure figns, but they are also fymptoms.

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Qu. Inflammation, Heat, Fever, outward fwelling from afflux of humors, Ec. why may not they be effected to be proper figns here?

An. Becaufe they do not immediately follow the Difeafe, nor any proper effects of the Gouty matter, nor do they always appear in the Gout; and therefore are deceitful figns, not to be trufted to, and fuch as have mifled fome of the most fagacious men.

Qu. Are they to be reckoned amongft the Symptoms?

An. Not among the proper fymptoms of the Gout, but only fuch as proceed from some proper fymptom of the fame.

Qu. How is that pain conditioned, which you make to be a proper diagnostick or fign of the Gout, whereby the Gout, or the inward tumor in the periostium, is made manifest?

An. 'Tis a pungent, diftending and beating pain, which begins and ends with the Gout, and grows up, and declines with the fame.

Qu,

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Qu. What denotes the pungent pain?

An. That the periostium fuffers,

Qu. What the distending pain?

An, That the fenfible membrane is raifed and stretched by the Gouty matter.

Qu. What the beating pain?

An. That the gouty matter is already impacted and wedged in.

Qu. What fignifies the intolerable pain?

An. Both the plenty and malignity of the damps, whereby the fenfible *perioftium* is forcibly fevered from the bone, and stands by the force of the intruded winds bent, like a string upon a bent Bow.

Qu. What doth the Pain indicate, which not only pervades all the parts of the body, upwards and downwards, but alfo paffes to the most extreme part, in such a degree, that the poor Patient can rest neither day nor night?

An. This plainly and palpably fhews (befides what was just now faid in

46 Df the G D U T. in the next foregoing answer,) that the membranes of the parts have a strict communication with one another, and a mutual sympathy.

Qu. What doth the Vitiated motion indicate, which increases and decreases as the Disease doth?

An. Not that the organs of motion are attacked, hurt or tormented, but only that the *perioftium* is put out of its natural pofture; which is manifest from hence, that as soon as this membrane is restored to its natural state, you cannot perceive the least defect in those organs.

Qu. Why then doth the pain increase, and grow more violent upon touching or moving the part affected?

An. This comes not to pass because that the organs of motion, or their membranes do suffer; but because that the membrane being already distended, by the touch or motion thereof it comes to suffer, and to stretch a new; whereupon new pain must follow.

CHAP.

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CHAP. X. Of the Symptoms of the Gout.

Qu. FOrafmuch as there are found many and different Symptoms in the Gout, will it not be proper to make a diffinction between them, thereby to come to the true knowledg of them?

An. You will do very well to diftinguish first the Symptoms in general from the Disease it felf; and then to make a distinction between the Symptoms themselves.

Qu. What diffinction is there to be made between the Symptoms of the Gout?

An. This; that the fymptoms that arife and vanish with the Difease, are to be distinguish'd from those that are bred not from the Gout, but from the symptoms of the Gout.

Qu. Which are the Symptoms that do immediatly accompany the Gout, and are born and dye with it ?

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An. Of these there are but two, already spoken of, viz. the Vitiated motion, and the Violent pain: These come and go away with the Discass, following the Gout as a shadow doth a body.

Qu. Which of these two Symptoms is the chiefest and most grievous?

An. The Pain; which is not the Difeafe it felf, or the caufe of the Gout, as hath been already faid; nor yet is it a fimple Symptom, in regard it is a caufe of other fymptoms, especially when it is violent.

 Q_{u} . What Symptoms are occasioned, or rather caufed thereby ?

An. Inflammations, Fevers, Faintings, Sleepines, Loss of strength, Afflux of humors.

Qu. Is it certain, that all these fix Accidents are caused by the raging Pain of the Gout?

An. Dr. Paul Barbette reckons them all amongst the effects of the Gouty pain, when he treats of the Symptoms of Wounds in his Chirurgery,

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gery, p. 165. of his Dutch Edition. Befides that 'tis manifest, that most of these do then first appear when the pain grows violent, and disappear with the diminution and ceastant fing of the pain.

Qu. Whence comes it, that these Symptoms that are caused by the Gout, not only in divers Patients, but also in the same, shew themselves at one time more than another, and differ so much from one another?

An It comes from the greater or leffer intenfnefs of the efficient caufe, the Pain; which receives its degrees from the quality and quantity of the gouty matter. For the more malign and abounding the damps are, the more grievous alfo are not only the proper Symptoms, but alfo thefe Accidents of the Gout.

Qu. Doth the raging pain excite in all Gouty perfons these Symptoms all together, and at once ?

An. Not fo; for in bodies that have but little ferofity in the blood, the first five Symptoms do appear; but

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but not at all, or very feldom, the fixth and laft, which is the afflux of humors : In others, who abound in that ferofity, the afflux of moifture will be perceived first of all, and often without inflammation. Again, when the gouty matter lurks deep, as in the *Sciatica*, and in the Gout of the sciatica, and in the Gout of the sciatica of colour, and the afflux.

Qu. That raging pains do caufe inflammations, is eafily underftood; but how do they produce Fevers, Faintings, Sleepinefs, and lofs of ftrength?

An. The intolerable pain drawing to the heart, caufeth there a Fever and Fainting; and passing to the brain, produces there Waking: whence must necessfarily follow Loss of strength.

CHAP.

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CHAP. XI.

Of the external Serous Tumor, which often manifests it self in the Gout.

Qu. IS it worth while, to treat fomewhat more largely of this Tumor, than of the other Symptoms caufed by the Pain?

An. 'Tis very necessary, because by this Symptom many Learned men have been fo milled, as to take it for the Gout-breeding matter it felf, or at least not to distinguish it from the Sickness it felf: Whence, as from a fruitful foil, have fprung fo many errors about the Gout, and efpecially about the proxime Caufe thereof. Yea this is the only caufe, that fo many Phyfitians and Chirurgians are fo much wedded to the Notion of Humors, that they dare almost take it for granted, that the Gout cannot be without this Swelling and Afflux of Humors; infomuch, that if they meet with any Gouty perfon, E

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• perfon, in whom they cannot find this Swelling or change of Colour (although they find great pain,) they will rather difcard them out of the number of the Gouty, than acknowledg, that fometimes there are no *bumors* at all accompanying the Gout,

Qu. But fince the Affluxed humor, which breeds the external fwelling, is neither in whole nor in part the Caufe of the Gout, what fhall we make of that tumor and its matter?

An. It is a Symptom, which is no infeparable companion of the Gout; yea never begins, and feldom ends with that difeafe: Which I think I can fo plainly make out, as that the most ordinary capacity shall understand it to be fo.

Qu. Does then this ferous Swelling not always accompany the Gout as an infeparable Symptom?

An. No; for, befides that fome Gouty perfons feldom or never perceive this Tumor (caufed by affluxed humors,) as I have experienced, and many Writers muft witnefs; commonly

Ofthe GOUT. 53 monly there is no affluxed Humor found in the Sciatica.

Qu. But does this Swelling never begin with the Gout ?

An. 'Tis never perceived in the beginning of the Gout; for, though in many Patients this Tumor very foon follows upon the Gout; yet, if it be well observed, it is never of the same age with the Gouty tumor, which in order of time always precedes it : Yea, if care be had, its birth may fometimes be altogether prevented, by being timely ready to evaporate this dolorifick damp by a speedy application of my matchless discharging Remedy; as I have often experimented on my felf, and shall further teach in the lecond part, treating of the Cure of the Gout. that then is to be

Qu. But as this Symptom never begins with the difease, does it neither end always with it, as other Symptoms do?

An. No: This Symptom alone survives the Gout; yea the caufe whence it rifes ends not with it. For, 29 E

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54 **Of the G D U.T.** as for the most part it first appears when the sickness is at its height, and the pain rageth; so it is often seen a good while *after* the Gouty pain, and then by good means and some patience dispelled.

Qu. It feems then, that the pain, which is the caufe of this Symptom, ceafing, the outward tumor doth not vanish at the fame time?

An. No; for very often the limbs remain fwelled as before, and it requires fome days, and fome trouble, before this Swelling can be removed; yea, if you do not take care, it not only lames the Patient, but alfo deforms him by Nodes and Schirres, whereby the Motion of the limbs is for ever deftroyed.

Qu. What then is to be done, to judg aright of this Symptom?

An. You must hold it for a certain truth, that the Humors which in the Gout breed the Swelling, are not the peccant or Gout-breeding matter.

Qu. To make me the better comprehend this, pray give me a clear defcription Df the GDUT. 55 fcription of this Swelling, which hath been the occasion of fo many Errors, and hath deceived fo many Learned men?

An. It is a Preternatural fwelling in the Fleihy parts, confifting of a ferous humor pervaded with faltifhnefs, by the fharp pain penetrated into the Limbs, and 'tis foft, pale, and cold.

Qu. But how may we best distinguish this Swelling from the Gout?

An. If it be view'd at the time when its Efficient caufe is gone; for then it may be feen in its true effence and qualities, and looks no otherwife than a Serous humor is wont to do.

Qu. I fee, you make two forts of Swellings in the Gout?

An. I do fo; the one is Windy, which is the Gout it felf; the other Serous, which is a Symptom : And they differ exceedingly from one another.

Qu. Wherein confifts that differ-

An. Chiefly in these particulars: 1. In respect of the Name, which they E 3 receive

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receive from their feveral Caufes; for the Gouty tumor coming from Winds, takes the name of Windy tumor; the other, coming from a ferous humor, is called the Serons tumor. 2. In respect of the Part or Place affected; for, whereas the Windy tumor diffends the Membranes of the bones, the Serous fill the Carneous parts, as water a fpunge, and render the Flesh very fpungy. 3. In regard of the Signs; for, whereas the Inward fwelling excites grievous and intolerable pain, the Serous none or little. 4. The Internal fwelling is a proper difeafe; the other is raifed by the pain, and is a Symptom bred by Confent of parts.

Qu. But fince that the Serous tumor in the Gout is not produced by any External caufe, but by an Internal, what is this Caufe?

An. The violent pain, as hath been often faid, which is here the caufe of the Afflux of humors, it being known by Artifts, that Pain draws humors after it; which therefore is by them affigned to be one of the principal caufes

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caufes of the Afflux of humors. Qu. But are thefe humors, of which this kind of Swelling confifts, drawn into the fuffering parts by the Pain alone?

An. Artifts are wont to add, that fympathizing Nature, as a kind Mother, fuccours the fuffering part by fending moifture to it; and accordingly this Swelling fhould be generated by Sympathy of Confert of the parts

Qu. What benefit or ease doth the part affected receive from fympathifing nature by her fending those humors thither ?

An. That the raging pain is thereby mitigated, and rendred more tolerable.

Qu. In what manner is that done, or how doth the conveyed humor affwage the enraged pain?

An. Though this be difficult to explain; yet I cannot agree to the common opinion, importing, that the Pain-breeding matter by means of the conveyed humors is driven outward, and

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and difperfed thorough the neighbouring flefh, and fo the fuffering member for a great part freed of the pain-caufing matter : For, the conveyed humors can by no means approach or come to the dolorifick matter, much lefs fetch it out of its deep feat, and diflodge it, becaufe 'tis fo faft impacted and included under fo firm and clofe a Bone-membrane,

Qu. What is then, in your opinion, the reafon why the fharp pain is often diminished upon the afflux of moifture, not only in the Gout, but also in the Tooth-ach? \mathfrak{C}_c .

An. Methinks 'tis probable, that 'tis done after this manner : The mufculous flefhy parts being by the conveyed humors rendred fofter, plumper, and more fpongious, and confequently gentler, do not, in the first place, prefs against, or rather refiss fo much the fensible and distended periostium, as before, when the carneous parts had but their own native and proper moisture. Secondly, the periostium being by the conveyed moisture from withOf the 5 D T. 59 without made gentler, may with lefs pain be stretch'd; and it may also come to pass, that by that little warmth, which this serous matter hath in it at first, it being now come near the periostium doth somewhat attenuate the included gross damp, and so the better dispose it to evaporate.

Qu. But doth the affluxed humor occasion no mischief?

An. Very much, and fometimes more than the Gout it felf; for without care it caufeth Diflocation of the fuffering members, and the Nodes.

CHAP. XII. Of the Diflocation.

Qu. I-IOw is it possible, that the Gout-breeding matter should cause a Dislocation?

An. By the plentious flock of humors conveyed and drawn in.

Qu. But how ; doth this abundant moisture, falling into the cavity of the joynts, 60 Df the G D U I. joynts, forcibly thrust the bones out of their cavity?

An. Not fo; but 'tis done in manner following: Pain and Nature cooperating, the one by drawing in, the other by conveying, bring fuch a quantity of humors to the fuffering part (for example, the Hipp,) that thereby, in time, the ftrong ligaments, which tye the bones together, are fo ouzed thorow, that being debilitated they ftretch and grow fo lax, that the bone falls out of its cavity, and fo caufeth diflocation: Of which we have many fad Examples.

Qu. Doth not this mischief fall often out in other Cases?

An. It may happen in all the members of the body; and then especially, when an unskilful or imprudent Master by the use of wrong means occasioneth yet a greater afflux of humors than hath been already drawn in by the pain, and furnish'd by nature: Of which, Pareus records a memorable Example in the Dislocation of the knees, caused by a Parifiant DE the G D U. T. 61 fian Master, called Greaulm, fol. 256. Qu. May this Diflocation be prevented by Art?

An. Very well; as shall be shewn in that part of our Book, which is to treat of the Cure of the Gout, and its Symptoms.

ey or fuch like matter, whereby

timbs are not only der

CHAP. XIII. Of the Nodes.

but alfo diffested to croc

Qu. IS there yet more danger to be apprehended from this Symptom, or its matter?

An. There is; for if you take not great care, it will change into an incurable Scirrbus or hard tumor, which in the Gout are called Nodes, according to that of Ovid;

---Tollere nodosam nescit medicina pedagram.

Qu.

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Qu. When comes this fivelling to change to fuch an hardnefs?

An. To borrow the words of Beverovicius; when the thin humor is infenfibly exhaled, and the fediment refts behind, then will that turn into hard knobs, which burfting of themfelves, or being opened, render a chalky or fuch like matter, whereby our limbs are not only deprived of motion, but alfo difpofed to crookednefs.

Qu. How many ways are these stony swellings generated?

An. Two; either of themfelves, or by the unskilfulness of the pretended Artist.

Qu. When of themfelves ?

An. The Evaporation of the fubtiler or thinner parts of thefe humors may be caufed by the natural and innate warmth of the fuffering part, affifted by the adjacent parts, as alfo by the preternatural heat of the inflammation of the fame, without any other external caufe: Whereupon the grofs, thick, faltifh, and earthy parts, as Df the ED U.T. 63 as the fediment and relicks remaining in the limb, are coagulated and concreted.

Qu. I understand you very well; but, I pray, tell me also, how may this come to pass by the Unskilfulness of Practitioners?

An. When they apply too ftrongly repelling, or drying, or too much cooling remedies, which drive the thinner parts inward, or difpel them, and fo harden and render incurable the thicker ftuff; whereas they fhould use moderately warm mollifying remedies, thereby to expel and confume the whole matter.

Qu. Do these Nodes, when they are caused without the application of perverse remedies, grow on leifurely?

An. They do fo, when they are bred of themfelves : For, the foundation of this chalky matter being once laid, 'tis raifed and encreafed more and more upon every new afflux, and from time to time fcaled over, until it comes to that bignefs, that

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that it only hinders the motion of the limb, and renders it crooked, but can alfo ftay or have room no longer under the skin, but making it first protuberant, bursts it at length in pieces.

Qu. Surely an ignorant Practitioner can bring this to pass much sooner?

An. So he can, and to fitch a degree, that the poor Patient in the very first fit of the Gout is for ever deprived of the motion of the suffering limb; of which we have in Banda an Example of a Lieutenant of ours, now lying here in Garrison, called Jan van Haerlem.

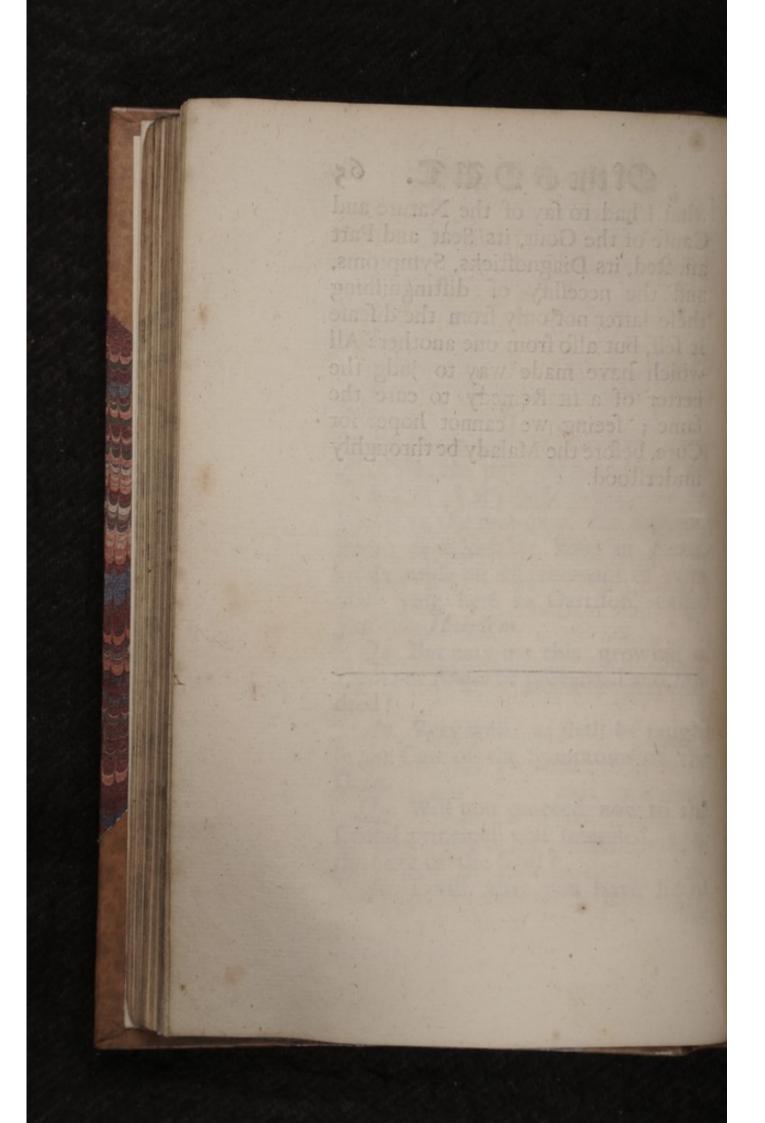
Qu. But may not this growing of Tophes or Nodes be prevented and hindred?

An. Very well; as fhall be taught in the Cure of the Symptoms of the Gout.

Qu. Will you proceed now to the fecond principal you intended, viz. the Cure of the Gout?

An. I will, after you have heard what

Df the G D H. T. 65 what I had to fay of the Nature and Caufe of the Gout, its Seat and Part affected, its Diagnofticks, Symptoms, and the neceffity of diftinguishing these latter not only from the difease it felf, but also from one another : All which have made way to judg the better of a fit Remedy to cure the fame ; feeing we cannot hope for Cure, before the Malady be throughly understood.



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THE SECOND PART: Of the CURE of the GOUT.

CHAP. I.

Treating of the Cure of the Gout, in general.

Qu. HAve there not been at all times men that have pretended to the skill of Curing the Gout?

Anf. Yes indeed; but Experience hath put them to fhame: For whereas they have promifed cheap and fure remedies against this painful difease, their promise hath notoriously failed, and their Patients have been E at

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at last abandoned remediles. See hereof, amongst others, Fabritius Hildanus his second Part, p. 174. where he speaks of one, whom he calls a Monster, that highly bragged, he could conquer that great Enemy of Mankind, the Arthritis or Gout, but was confuted by very fad Experience.

Qu. Why doth he call him a Monfter ?

Anf. Becaufe of that monftrous and mifchievous means by him ufed, whereby he killed his Gouty Patients. See in the fame Hildanns his fecond part, p. 87. that unhappy preparation of Quickfilver for the Gout.

Qu. But have none of the best Physitians of Europe in so many Ages found any sure Remedy against this Difease?

Anf, None that I know of; they rather call the Gout Ludibrium Medicorum, and the Difeafe of Rich men; though it feizes alfo on the Poor, who, if they could be helped, would foon lofe that name. Hence 'tis

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'tis become a Proverbial faying, viz. that he who undertakes to perform fomething extraordinary, is like him that pretends to Cure the Gout: Which pretenders are ufually fent to the Courts of Kings and Princes, to practife their skill on them, who will not fail to make fuch men rich, as thall perform fuch undertakings.

Qu. What's the matter then, that the true Remedy hath not been found hitherto? is the fault in the Physitians, or in the Gouty Patients?

Anf. In both, but most in the former, as not knowing the true nature of this Difease, notwithstanding all their Disputes and Discourses about it.

Qu. What do you think of Cardanus his faying in the praife of the Gout, viz. That whofoever will ftop the fource of the Gout, ftops withall the fource of life: Doth not this imply, that the Gout is incurable? Anf. He will fay, that the Root of the Gout cannot be totally pulled out, though you may ftrip off the F_2 Leaves,

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Leaves, that is, remove the outward Accidents thereof.

CHAP. II.

That the Gout is curable by Burning. with Moxa.

2. BUT pray, let me know your opinion in this matter : Is the Gout an incurable Evil, and Cardanus his faying true?

A. For the comfort of all the Gouty, I here openly and joyfully declare, that 'tis Curable :

Q. But is not this a prefumptuous Arrogance?

A. No; for the good God, in compaffion to mankind, hath been pleafed not only to bring me to the true knowledg of the nature and condition of this Difeafe, but alfo to direct me to a *fpecifick* and proper remedy thereof, which removes this fore Evil, it being now, through the divine goodnefs, in our power to quell and tame this

Of the GOUT! 71 this Gyant, without making our felves guilty of any vanity.

Q. What means is this, I pray?

A. 'Tis the harmless Burning with Moxa, which being three or four or more times repeated, according to the condition of the place which the Gout hath feized on, pulls the Enemy out of his fastnesses. Mark it, the raging Gout in the height of its rage, is first ft ftopp'd in its carrier, and foon after me forced to pack away.

Q. Is this possible?

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A. It is; for I have fuccesfully experienced it on my felf, and many others.

CHAP. III.

How, and for what this Remedy is used.

L. RUT to speak with order of the Cure of the Gout, what is above all to be confidered in this Difeafe?

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A. The fuffering part and labouring nature is to be fuccour'd without delay, and the part affected to be delivered of the inclosed damp; the Cure principally confifting herein, viz. in giving an out-let to the Goutbreeding or peccant matter, and even in forcing it to evaporate.

Q. Which then is the remedy, that performs fo great an effect? Is it not known in *Europe*? Where hath it been found out?

A. 'Tis Moxa, beft known amongft those of China and Japan; so celebrated, valued, aud commended there, that no other remedies are to be compared therewith upon the account of its excellent performances; considering that there are few pains in the body, for which they do not use it with great benefit,

CHAP.

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CHAP. IV.

What Moxa is, and where to be had.

2. BUT what is this Moxa? Anf. "Tis a very foft and wcolly fubstance, made by a very skilful preparation out of a certain dried Herb.

Q. What name hath that Herb, out of which this woolly matter is prepared ? Is it not known amongst us ?

A. The name is unknown to me; but I am well affured, that 'tis one of the beft Herbs under the Sun, and may very justly bear the name of Mater Herbarum.

Q. Is there requisite a particular skill to prepare it ?

A. Yes verily; and there is none of all the Droguists of Europe that have that skill.

Q. Is the preparation of it much valued by the Chineses and Japanefes? A. This

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A. This Art is by those Nations fo highly valued, that they will not for any mony communicate it to other Nations, but do keep it for a great fecret.

Q. Do they in China and Japan publickly vend it?

A. They drive a good trade with it, and carry it in whole bales through those vast Empires for fale.

Q. Which of those Nations hath the reputation to prepare it best?

A. The Chineses do herein far excel the Japoneses; as they also do in preparing and conferving all other forts of Medicines.

Q. Is this prepared Herb in great efteem with those people?

A. In fo great an one, that they are feldom found to be without it.

Q. For what use do they employ this woolly substance?

A. For an actual Cauftick, and an efficacious difcharging remedy.

Q. Against what Diseases, and in what places of the Body?

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A. Against all indispositions arising from cold Damps and Humors, and in all places of the Body, none (that I know) but the eyes excepted.

Q. Do they find good from this Cauffick.

A. Exceeding great, and that with great fafety; by vertue thereof freeing the Body from all lurking winds and cold humors.

CHAP. V.

Directing how this Remedy is to be used.

Q. IN what manner do they use this matter for a Caustick, and in what quantity?

A. They make between their fingers a little pellet of this woolly fubftance, which is fcarce of the bignefs of a fmall white pea, at one end fomewhat fharp, and at the other end flat; and this they put with the flat end on the place where the Burning is to be made,

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made, fetting fire to the upper fharp end by fome fmall Aromatick flicks, exprelly prepared for it, which yield a very grateful fcent.

Q. Doth this woolly matter catch fire quickly?

A. When 'tis competently dry, it catches fire fooner than any tinder: whence the *Chinefes* employ it alfo in their Tinder-boxes.

Q. Doth this pellet, when kindled, turn all to afhes?

A. Never wholly, but there always remains a little bottom that is not incinerated.

Q. What may be the cause that 'tis not wholly turn'd to ashes?

A. The moifture which by this burning matter is drawn out of the fuffering place; of which moifture indeed the greatest part flies away in fume, but yet some of it draws into the burning pellet, and so moistens it that it cannot all be converted into asses.

Q. Can the humors under the skin be feen with the naked eye to run towards the burning pellet? A. DE the G D U T. 77 A. Very well, it being done with more fpeed than men are wont to run ro an house that is on fire.

Q. Doth this Burning raife no blifters in the skin?

A. None at all; it only causes a little grey speck, though the pellet be divers times successively kindled upon the same place.

Q. What reafon is there for it, that the fire here raifeth no blifters?

A. None other, but that the pellet burns not quite thorough to the skin.

Q. Doth not this Burning cause intolerable pain?

A. The pain is very tolerable, becaufe the matter is woolly and foft, not clofe nor thick; and the pellet is fmall, and burns not unto the very skin.

Q. How long lasts the Burning of one pellet?

A. About the time of telling fifty.

Q. How often is the Burning repeated upon one place?

A. Ordinarily thrice upon weak and

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and tender limbs; but upon other places, if need be, fo often till the pain be removed, although you fhould (for example in the *Sciatica*) on one and the fame place kindle 25, yea 50 pellets; of which you need not fear the leaft inconvenience, but may expect the better difcharge.

Q. But doth not this Burning occafion great after-pain?

A. None at all; but as the fire is out, you may handle the place burnt without caufing any pain; and, which is more, you may cruth and prefs it as hard as you pleafe.

Q. Doth this Burning take away the pain that is in the place or part, or only mitigate it?

A. It doth both, to admiration.

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CHAP. VI.

What is to be done after the Burning upon the places where it hath been made?

Q. So then, there is nothing to be done after the Burning upon the part burnt to eafe the after-pain? A. I told you just now, there is no fuch thing as after-pain: But yet you must not leave weak nature to her felf alone, but you ought to aid her, and to use means to sport the little Escar as soon as is possible.

Q. What is to be done herein?

A. Lay a little beaten Leek upon the faid Efcar, and over that, one of the outermost coats of the fame Leek, a little moistned in the mouth; the which, like a plaister, keeps the beaten Leek fast upon the Efcar. This being taken off together, some 24 hours after, more or less, you'l see the little Efcar disposed to separation, appearing to have round about it a circle of

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of clear skin, which fometimes alfo rifes to a wound or blifter, which may with fciffers be opened to give it vent.

Q. Is not this little Efcar to be treated with incifion, and to be taken away with little pincers or lancets, that fo the ill which may lurk there may evaporate? Or is it better to leave it for nature further to open the Escar, and to throw it off? A. Beware to use any fevere means (from ill-grounded confiderations) or any force; for great pain may thereby be occafioned : And therefore ufe only warm Plantin-leaves to make the Escars fall off, patiently staying till they fall off by that means, and the part heal up; the which is effected by provident Nature her felf, if it be good for the part affected.

Q. But when the Efcar feems to be already loofe, and even to hang doubled in the little wound, is it not then to be taken away?

- A. No.

Q. If the Escar is sever'd, and taken

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taken away by Nature her felf, and the *pus* or matter looks like lard, is not *this* ro be removed one way or another?

A. You are not fo much as to touch it, bur leave it to Nature to dispose thereof.

Q. Must you not do your best with the greatest speed to heal up the burnt places?

A. No; but rather you are to keep them open as long as you can, yet without changing them into Ifin fues by putting peas or pellets into for them.

take Q. How is that to be done?

A. By laying upon them warm Plantin-leaves, with the rough fide to the skin. I fay, they muft be laid on warm, not cold : And this is to be done not by holding the leaves in warm water, but by laying them on glowing wood-coals ; where they muft lie until you fee them begin to fall-in; and then they are to be taken off and rolled ftiff together betwixt the palms of the hands, and then to be

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be unrolled and difplaid again, being yet warm and moift, and fo laid on the Efcar: Continuing this until it be time to heal up the wound; when the leaf, being prepar'd again after the former manner, is to be laid on with the *fimooth* fide to the skin; by which means it will heal up without leaving a mark upon the part, and much better than if you had employed the beft plaifters.

Q. Why must these Leaf-plaisters lie a gteat while upon the part with the rough fide, and at last only with the smooth fide?

A. Becaufe the rough fide draws out, and the fmooth fide heals?

Q. Is there nothing elfe to be obferved touching these vegetable plaisters?

A. They are to be kept from falling off by fome compress of linnen rags; and to be refreshed or renewed twice in 24 hours.

Q. But in cafe the burnt places could not well endure the use of linnen compress, how then may these I cafDf the G D U I. 83 Leaf-plaisters be secured from falling off?

A. You may lay over them a Diapalma or Basilicum-plaister, only to keep the Leaf upon the Escar.

Q. But if Plantin-leaves be not to be had, may not other leaves ferve? A. In that cafe you may use red Cabbage or Colts-foot-leaves; and, if these cannot be had, employ the faid Diapalma or Basilicum-plaisters: Which may chiefly stand you in good stead, when you are travelling by water or land.

CHAP. VII. Of the admirable Effects of this Caustick.

2. MAY a man reft in this apdefired cure?

A. You may, by God's bleffing; and the Phyfitian may look for honour, confidering that in fo doing he G cureth

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cureth furely, without inconvenience, and even with pleafure.

Q. Then, it feems, there is no danger in the right use of this remedy?

A. None at all; yea it is fuch an one, than which there will hardly be devifed a better, and of which you will really fee a wonderful effect for the good of the Patient.

Q. Will it fuccour nature with most speed, and free her of the evil that encumbers and torments her?

A. It will; whereas Hippocrates 1. 6. Aph. 49. faith, that the Gout requires 40 days to cure it; which Galen feconds, with the adding this condition, viz. if the Phyfitian underftand bis work, and the Patient do his part in observing carefully what is prescribed. But this our Moxa, by means of the Burning described, draws this Wolf with speed out of his den, and delivers the Patient inftantly from his pains and anguish.

Q. But is this way of curing (ure?

A. So sure that it fails not, but is always Df the G DUI I. 85 always beneficial; and the fuccefs of it is fo manifest, that it cannot be doubted.

Q. But you did add, that it would cure with pleafure; which I underftand not, fince you have above acknowledged, that this Burning is not without fome pain.

A. I mean thus, that the Cure is pleafant, in regard that upon a little tharp pain, which lafts but a fhort time, there follows a great pleafure and joy; the fruits of this fhort pain being great and every way delightful, forafmuch as the poor Patient, difcharged from the intolerable pain of the Gout, inftead of his doleful lamentations and outcries hath now caufe to rejoyce, and to break out into thanks.

Q. But is this all, which the Burning with Moxa produceth?

A. No; for the fame, being timely ufed, hinders the afflux of humors, though not always totally, yet at leaft in great part.

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Q. What benefit ariseth from thence?

A. Thereby is prevented all the mifchief, which otherwife may be occafioned by 'the afflux of humors; fuch as is Diflocation and Nodes: Whereas 'tis certain, that those who use this way of Burning duly and maturely, shall never have cause to complain of those grievous effects.

Q. If all this be true, this remedy may be extolled to the sky ?

A. Not only that; but it enables the Patient to be upon his legs, and to follow his vocation, if it be not too toilfome; and even to travel without any confiderable trouble: By the fame alfo he is exempt from all other tedious and coftly fluff, falves, ointments, plaifters, $\mathfrak{S}c$.

CHAP.

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CHAP. VIII.

Shewing, that this Burning with Moxa goes beyond all other Remedies of Europe hitherto used against the Gout.

2. BUT when the Phyfitians of Europe and other parts from hence have better understood the nature of the Gout, will they not be able to find out a better Remedy against it ?

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A. 'Tis probable, that upon the acquifition of the true knowledg of this difeafe, they will not deviate fo far as before from the way of curing it, and that in all probability they will efchew many errors and miftakes; but they will never find out any better remedy than this Burning with Moxa, it being the beft, becaufe the fpeedieft, cleanlieft and fafeft, yea the moft genuine, moft fecure, and moft accommodate means, that can be excogitated by men.

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Q. May not the enclosed wind, which you fay causeth all the trouble, be drawn out by Sudorificks, Cupping-glasses, Issues, Leeches, or common Causticks?

A. By Sudorificks possibly there might be effected the greatest ease, but the evil would not be fully removed, seeing that thereby only the subtilest of the gouty damps would be exhaled. And for Cuppingglass, Issues, Leeches, and Causticks, none of them is able to setch out this evil from its deep-lurking hole, which is under the close and firm membrane which invests the bones.

Q. Is it not advisable to employ Anodines?

A. By no means, becaufe the pain is thereby not removed, but only palliated and dulled; but is afterwards raifed up into greater rage.

Q. Is not Letting of Blood bencficial, as many would maintain?

A. Letting of blood is better omitted, for these reasons: First, because, according to the opinion of the best, 'tis

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'tis not advisable, when the pain is raging, to open a vein. Secondly, 'tis not the Blood that's peccant or faulty, but the ill-conditioned Damps, which indeed run together with the blood and spirits in the vessels, but do never to mix with the blood, as to make one body, but may eafily be sever'd : Whereas 'tis otherwife with the Blood and Spirits, they two making up one body; as the heat and water conftitute hot water, or as wine and the fpirits thereof make one body of wine. Thirdly, by Blood-letting the noxious Damps are drawn inwards to the Heart, and there occasion much mifchief, and the benefit you look for from it will not countervail the harm. Fourthly, the forces of the Patient are thereby diminished, and Nature is enervated in her conflict with the difease; whereas a good Artist ought always to befriend Nature by ftrengthning her against her enemy; and a wife Phyfitian will not be forward to fhed blood, but preferve it as the treasure of life : And as a Sea-

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man in a tempeft will not throw his Bread over board, but rather fuch commodities as he can be without; fo a good Phyfitian will keep the blood of his Patient, and drive out ill Damps.

Q. What do you think of *fabves*, oils, or other unctuous medicaments in this cafe?

A. They close the pores, and obftruct evaporation.

Q. What opinion have you of hot Pickle, humane Urine, warm Cowdung, &c.

A. They are means which are apt to mitigate, yea fometimes to remove the pain; but not always, or very flowly, nor radically.

Q. Would not an Hot iron be convenient to make this damp exhale, as was practifed in the Sciatica upon Jacobus Vincus, Ambassiador of the Prince of Lansbergen; witness Dr. Nicolaus Tulpius, Burgemaster of Amsterdam, in his Observations, cb. 26. p. 228; by which means that Gentleman was freed from his trouble?

Of the GDUIL! A. 'Tis too fierce, and withal too

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dangerous a remedy ; practicable indeed, (notwithstanding the contrary judgment of Fabrit. Hildanus in his 6th part, p. 501;) but 'tis better to use our gentle way of Burning, which, by far, causes no fuch pain, and is more beneficial without putting nature fo hard to it. To confirm this, I shall now only add, what Herls faith in his Examen of Chirurgery, p. 364. viz. The burning with a red-hot Iron is too violent a way for Chirurgions, and too painful for Patients, and can feldom be used without burting the fless and muscles. And doubtless all Phyfitians and Chirurgions will be of the fame mind, as foon as this way of Burning with Moxa shall come to their knowledg; my opinion being, that they will never make use more of an hot Iron but in fuch cafes, wherein the faid Burning is not powerful enough, as, for example, in the Rottennels of bones, and the like.

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Q. What think you of Spanish Flies,

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Flies, now of fo frequent use; of which Jobus van Mekeren writes in his Observations, that he hath used them with much benefit against the Gout, following the advise of Dr. Vopiscus Fortunatus Plempius?

A. I efteem, that all intelligent Phyfitians and Chirurgions will much rather make ufe of our Moxa for the good of their Patients, they knowing fufficiently the venemoufnefs of thole Spanifb Flues, and how hurtful they are to the Bladder and other vifcera; and having ufed them long enough of neceffity, becaufe they knew no better means. And 'tis remarkable what Aquapendente warns of the qualities of Spanifh Flies in his Art of Chirurgery, ch. 3. p. 246. concluding with thefe words, That 'tis madnefs to ufe this deadly remedy.

Q. Is the Burning with Moxa lefs painful than that with an Iron?

A. Incomparably lefs; nor is it fo Dangerous, according to the golden rule of *Hippocrates*, *lib.* 2. Aph. 12. That to heat much, and fuddenly, is dan-

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dangerous; but to do it by little and little, and flowly, is without danger. And this is it, what the expert Phyfitian Guilandin confesseth in Prosper Alpinus de Medic. Ægyptiorum, ch. 12. in that remarkable practice of the Burning in Cairo, and thereabout: Which Chapter highly deferves to be confidered.

Q. But, Sir, do you not apprehend, that the Ægyptian manner of Burning will go beyond that with your Moxa? A. Not at all, being well affured, that the Ægyptians will be very glad to exchange their Cotton and Stramineous linnen with our Moxa, as foon as they shall know the admirable vertue and effect thereof. Nor is the Burning with Moxa by far so painful, as all the world will judg, when they shall fee and compare both.

Q. Then, I pray, Sir, be pleafed to repeat in fhort, what remedy it must be, that fhall free a man from this difeafe?

A. The genuine Cure of this Evil, which attacks fuddenly, and will not bear

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bear delay without great injury to the Patient, confifts in the removal of the Caufe, and requires a remedy, having these following proprieties. First, it must powerfully open not only the Pores of the Skin, but those also of the Membranes of Bones. Secondly, it must attenuate the cold thick damps, and refift their malignity. Thurdly, it must strengthen the innate heat, and the expulsive force of the part affected, thereby the better to mafter and remove the Evil. Now the Burning with Moxa performs all this: It ftrongly draws out from the deep, and refifts all malignity; it attenuates the cold and craffe vapors lurking under the membranes, confuming or extracting them, and fo disburthening nature of her enemy; lastly, it fo corroborates the weak fuffering part, that it will not fo eafily receive and lodge again Damps of that nature.

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CHAP. IX.

Shewing, that this Burning is very tolerable.

Qu. BUT do you think, you can eafily induce your Patients to undergo this Burning?

A. Certainly being well inftructed they will quickly fubmit to it; though that kind of Burning which hitherto hath been used in Europe, hath made men very averse from that way.

Q. How may they be best perfwaded to it?

A. I would rather have them perfwaded by other prudent and underftanding perfons, than by the Phyfitian himfelf. For as to him, it will be more advifable, he fhould feem himfelf cool in this bufinefs, and ftay to be intreated.

Q. But in cafe they will not be induced to it out of that perverse apprehension, what then?

A.It

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A. If they be fo delicate as not to fubmit to fo flight a pain, they deferve not to be cured, and fo muft keep their Difeafe: But, I prefume, it will be with you as 'twas at first with me, who having from an idle fear refused this Burning, was afterward conftrained by the grievous and raging pain to defire the use thereof. And fince that Gouty perfons must day and night combat against the intolerable pain of the Gout, certainly they will not eafily be afraid of this innocent way of Burning. I have feen weak and timorous women, and young maids, which made nothing of it, in respect of the pain they had indured in their teeth and head : Not now to fpeak of Children, who without much cry and tears have endured this Burning, to be cured of that kind of Dropfie called the Tympanites, and of o. ther infirmities, and particularly of Convulsions.

Q. But many Doctors and Chirurgions are like to condemn this remedy as new and unknown, and fo render Of the GOUT. 97

der it fuspected among their Patients? A. The Effect will soon filence you,

and convince you of envy and ignorance.

Q. But may not this Difease be cured by gentler remedies?

A. No: You may indeed mitigate the pain by gentler means, but not remove the caufe, nor root the Evil out of the part affected; which may beft be done by this our Burning.

CHAP. X.

Of the Qualification required in the perfon that is to perform this Burning.

Q. IS every one fit to perform this Burning?

A. No certainly; but it must be one that hath a perfect knowledg of what is requisite to it, both before and after, and that is experienced in it; because considerable mistakes may be committed therein.

Q. What

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Q. What are the particulars, of which this Artift mult be well inftructed?

A. First, of the Discase, to the cure of which this Burning is to be used. Secondly, of the Remedy or Moxa, and its vertue, as also of the Herb, and the way of preparing it. Thirdly, he must know in what manner this Burning is to be made, and what is to be done both before, in, and after the same.

• Q. What elfe is required thereto?

A. The Practitioner muft be a perfon of a good fight, not unwieldy of body, having fleady and dry, no trembling nor fweaty hands; for elfe he will not be able to give to the pellets their due form or fhape, to put them faft upon the right place, and to make them catch fire: All which is to be done with a particular dexterity and expedition, that fo the patient may not be held any time in fear.

Q. Pray, will you teach me, how the good *Mona* is to be diffinguish't from that which is naught? A. Df the G D U.T. 99 A. By your fight, fmell, and touch. Q. How by the fight?

A. That which is good hath a fine gray colour ?

Q. How by the finell?

A. It hath a grateful fcent ?

Q. How by the touch?

A. It must be fost like fine wool; if it be hard or stubborn, 'tis then unfit for this Burning. And if it have this last quality relating to the touch, though the colour and scent were fomewhat decayed, it would not be unfit for this purpose.

CHAP. XI.

Of the little Aromatick sticks, and their Use.

2. BUT where is this Moxa to be had?

A. It must by the Commissioners of the East-India Company be sent tor out of China: Which will be very H well

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well worth the while, fince it will prove a gainful commodity in *Europe*, and be no burthen to fhips.

Q. What use is there of those Aromatick sticks you have mentioned?

A. They are neceffary to kindle the Moxa with; and these must likewise be had every year out of China or Japan: They also by their pleafing scent when kindled, keep the Patient and Bystanders, and the Operator, from the ungrateful and offensive smell, which the gouty damps emit, when by the burning Moxa they are forced to evaporate; especially if it be considered, what ill the smell of such stinking vapors may cause in our Bodies.

Q. Are these flicks prepared by Art?

A. They are fo, and that of feveral forts of well-fcented wood, of which *Santal* is the chiefeft. And they must be very tenderly handled, being very fragile.

Q. For what use do the Chineses and Japoneses employ these sticks? A. For

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A. For burning; but most for perfuming before their Idols.

Q. May they be kept good for a long time?

A. For fome years, if they be kept shut up in a dry box.

Q. May they not be had at Batavia from China, together with the Moxa?

A. They may; but in cafe a great quantity were required to ferve all Europe, it must be sent for from China or Japan.

CHAP. XIL.

Of the Place where the Burning is to be made.

2. IN what place is this Burning to be made?

A. In all places where the Goutbreeding matter is feated, and caufeth great pain. And here the rule of Hippocrates may be applied: Burn where pain is. Wherefore the Phy-H 2 fitian

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fitian or Chirurgian must needs exactly know the very feat of the gouty pain, without which the operation is for the most part fruitless. And if the application be made but an inch wide from the very part that is in pain, it would not have the defired effect.

Q. Since it is of that importance, to know well the true feat of the pain; how may it beft be found?

A. By the Eye and Touch.

Q. How by the Eye?

A. The Mafter ought to have Eagles eyes, and then by looking attentively he will foon fpy the place, efpecially if the pain be very great and violent, and the gouty limb by the affluxed humor not much fwelled: For then the Inflammation directs manifeftly to the very feat of the pain, and flaws the hole of this raging wolf. And in this cafe one may eafily fee the genuine Gout-or Wind-tumor by taking notice of a little diffenfion and flanding out of the skin, appearing like a fmall puftule; on the extant

Df the GOUX. 103 tant head of which, if the burning be applied, the Patient will be freed of all pain, fo as that the Bystanders will admire, and all Gainfayers be convinced of the vertue and power of this remedy.

Q. But in cafe the Scat of the Gout fhould not be visible, how is it then to be found out?

A. Confidering that this mostly happens in perfons that are the first time attacked by the Gout, and often also in those that are subject to a great afflux of humors from the Gout; it will be incumbent on the Mafter to be very cautious in finding out the true feat of the pain, that fo he may not put the Patient to unnecessary torment. And therefore he must with his fore-finger feel fo long upon or about the place, where the Patient complains of most pain, until by the Patients greatest sense he do find out the true place; which, to avoid all mistake, he must touch again and again, and then perform the operation of Burning accordingly.

Q. Pray,

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Q. Pray, Sir, inform me, Whether the people in *China* and *Japan* are fubject to the Gout?

A. This evil raigns as well in those parts of the World, as in Europe, and even among the Hottentots on the Cape of Good Hope.

Q. Do these Nations cure themfelves and others of the Gout, furely and speedily?

A. No, they do not, except it be cafually : which may be wondred at.

Q. What's the matter, feeing they have poffeffed this excellent means of Burning from immemorial times?

A. Tis not the want of a good remedy, but their stubborness, superstation and perverse custome, that they do not cure the Gout but by chance or good fortune. For they have been taught indeed to burn in very many, but yet in certain determined and prescribed places of the body; not being to be induced to transgress those prescriptions, though the pain should require it. If then it Of the G D U T. 105 it chanceth, that the Gout fits just in the place, where they are accustomed to burn, it is cured ; but if it happen to be feated one inch more or less from the place prefixed, and call for the operation of Burning, they let the Patient complain and cry out, and will not fuccour Nature where she needs it. And this is the true cause, why they enjoy not that benefit against the Gout by this way of Burning, as they might do.

Q. Is it then allow'd and advisable to burn upon all places where the gouty pain is feated, though there be Veins, Arteries and Nerves underneath?

A. Yes, without exception; forafmuch as this kind of Burning, being perform'd after my prefeription, cannot hurt these parts or vessels; yea 'tis beneficial, by this burning to difcharge the swollen veins and arteries of their damps: And therefore the preferibed pellets may and must be burnt out just upon them; as shall be more particularly directed hereafter in the Tootb-ach.

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Q. But

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Q. But now, the place being found out, is there nothing that may hinder the Burning?

A, If there be any hair upon the place affected, that must be shaved off with a rafor; in regard that the least hair impedes the Burning, because it keeps the fine pellet from perfectly touching the skin.

Q. Is there nothing elfe in the way?

A. If the place, where the Burning is to be made, be fatty or moift, that fatnefs and moiftnefs muft be taken away, and the place duly cleanfed and dried : That done, put the little pellet upon the right place, and there burn it, repeating it fo often till the gouty pain be gone.

Q. But how may it beft be known, what effect this Burning hath produced?

A. The Patient will foon find that by the diminution of the pain and of the inflammation, and the Mafter, that administers, must, (if the Burning have been made upon an ordinary place **Of the G D U.T.** 107 place of any tender limb, to three, four or five times fucceffively,) prefs with his fore-finger hard upon the *Efcar*, to learn whether the dolorifick gouty matter be wholly drawn out or not, which the Patient is with freedom to declare, if he means to be fully cured, and not in part : For, if he deceives the Mafter, he most deceives and wrongs himfelf.

Q. If the pain with three pellets be quite removed, as commonly it is, will it be neceffary to trouble him with any more?

A. By no means.

Q. But in cafe the Patient, contrary to expectation, fhould out of tendernefs and effeminacy, in the burning of the first pellet, which causeth most pain, cry out and grow impatient, what then ?

A. The Mafter in that cafe is not to mock or laugh at him, but only fhew a chearful countenance, and entertain the Patient with a difcourfe of the excellency of the remedy, of the fhortnefs of the time that the operation

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Q. But pray tell me, Sir, what's the reafon, that this Burning hath been fo many years hid from us *Europeans*, whereas it hath been experienced for fo vaft a time in those *Indian* Kingdoms, where it is fo common, and is used for the most part with great benefit?

A. This is to be imputed to the carelefnefs and conceitednefs of the *Europeans*, becaufe having fo good an opinion of themfelves, they are afhamed to learn any good thing from those Pagans; as if they alone were posselfed of all knowledg, and those Nations had no share at all in it: Without which conceit and negligence, this excellent remedy might have been long before communicated to these parts of the World.

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CHAP. XIII.

Treating of the mischiefs, inconveniences, and dangers of the Burning misused.

Burning? A. There may; and even in Japan, China, and other places, confiderable mistakes are committed in the Use of this Burning, whereby some, using it without fear or wit, do cause not only grievous and fistulous wounds, but also lameness of limbs.

Q. Pray, explain to us more particularly, how these evils proceed from this Burning mifused ?

A. To be fhort, when, after the manner of fome Japoneses, the Burning is made too much and too deep, without due regard had to the places to which the Burning is to be applied: Whence it comes to pass, that Nature being unable without help to cast off the Escar (which is great and and thick) the purulent matter remains within, and eating in from time to time, causeth a deep ulceration downwards.

Q. What danger is there of lamenefs, in cafe of imprudent Burning?

A. When he that performs the operation, burns the Nerves and Ligaments too hard, that may eafily occafion convulfions of limbs and lamenefs: Which evil yet needs not to be feared (no more than that above-mentioned,) if you employ a good Mafter, or follow my prefeription.

CHAP. XIV.

Of the Serous swellings of the Gout, bred by accident, and the Cure of them.

Q. OF what matter do these Swellings confist?

A. Of a Serous matter, pervaded with faltnefs, mostly caufed by accident through pain; being of little danger, and Df the B D U T. III and not troublefome to cure; efpecially in or about the Joynts of the limbs, in which thefe aqueous tumors are very eafily bred by pain.

Q. It feems, you make no great matter of the cure of thefe fwellings, which yet Phyfitians count very troublefome to cure, knowing that they are not to use any repercussive means in this case?

A. 'This ferous humor cannot be better difcharged than by our way of Burning; and that is fo fure and fafe, that no body ever needs to apprehend from thefe fwellings any ill, much lefs incurable nodes or knots, forafmuch as by our Burning the humor and other feculent matter evaporates, whereby alfo the part affected is ftrengthned, and preferved from all putridnefs.

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CHAP. XV. Of the Nodes and Stony Tumors, and their Cure.

Q. W Hence arifes that Stony or Chalky hard fwelling in the external parts?

A. From the *faces* or fediment of the ferous fwelling; as hath been taught in the Symptoms of the Gout.

Q. Is there a difference to be made between thefe hard Tumors ?

A. There is; for there is a great difference between a Schirrus that is hardned, unmovable and indolent, and fuch an one as is but coming on, and not yet hardned.

Q. Are both these kinds curable?

A. The *first* yields to no remedies; the *other* is beft and fooneft cured by our Burning, whereby it is fully difcharged, without any relicks remaining behind.

Q. Have you experience hereof. A. I had a notable one in our chief Chirur-

Ofthe GOUT. 113 Chirurgion, Francis de Ray, a very skilful Mafter, who in his Art had ferv'd our East-India Company near 30 years. He was exceedingly tormented by the Gout, and got a Schirrbus upon the fore-part on his right hand, which though it took not quite away the Use of the hand, yet did very much difable and weaken it by a notable intumescence; which being by my advice burnt and fo opened, was in a little time perfectly cured; the matter of the Schirrus, thence discharged, white like mixed chalk, which the Patient himfelf took up with a Spatula, and having laid it on a paper, shew'd it me, being dried; whereupon his hand was fo ftrengthned, that he could use it at pleasure. In like manner the fame perfon freed himfelf from fuch another imperfect Schirrus, feated upon the great Joynt of the great Toe on his left foor.

Q. When, I pray, is the beft time to perform this Burning on the head of the imperfect Schirrus?

A. Then when the Gout returns again

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again to the fchirrous part; which very eafily comes to pals in those that are much subject to the Gout; for, in following this Prescript, you kill two Birds with one stone, and cure at the same time the Gout and the Schirrus. Q. Will not this Burning mollify and cure a perfect Schirrus?

A. I have not tried this hitherto; mean time I truft, there are means to be found, if not totally, yet in part to remove this evil.

Q. What then think you to be most advisable in this case?

A. To open, (as often is done and must be done) the skin, and to take out the matter of the Schirrus as far as is possible, and that done, to heal up with my Coridons or Leaf-plaisters the skin as well as you can.

Q. But then, if this fhould fucceed well, can you preferve the place thus weakned from a new afflux of humors?

A. I think, I can, and that after this manner: If the Schirrus were, for example, upon the knuckle of the forefinger, Of the GOUX. 115 finger, I would then duly burn the limb under it on the hand, and thereby intercept all ill humors, and fo keep them from flowing to the weak part.

Q. But what, if that should fail you, and the Gout surprise the limb with a new afflux of humors?

A. Then should I refolve to hinder those humors from coagulation and induration by the advantage of our Burning remedy; by which means you may at least take away the diffigurements, which these nodes cause in the limbs, if you cannot restore the use of the limbs.

Q. It feems, you have some hopes even of the last?

A. I have, becaufe I know, that the nodes do lodg not *in* the very Joynts, but *about* them; and being difcharged one way or anothet, 'tis found that the Joynts are free, provided only that the veins and arteries, yea the nerves too, be not fo obftructed by the bignefs, hardnefs and diuturnity of this ftony tumor, that I the

the pervasion of the Blood and Ani-

mal fpirits cannot by fit means be reftored; in which cafe the limb muft needs remain ftiff.

CHAP. XVI.

Whether there be different sorts of the Gout, and an Essential difference betwixt them?

Q. A RE not almost all Physitians of opinion, that there are different kinds of the Gout, effentially differing from one another; or at least, that there is the Cold and the Hot Gout?

A. They are; but they miftake, being mifled by the *external Symp*toms: For, all Gout arifeth from cold, dry, and malign damps.

Q. But yet the Gout may be diffinguished?

A. It may, in divers refpects, and principally, *First*, in refpect of the Limbit feizes on; whence are the names

Of the GOUT. 117 names of Chiragra, Sciatica, Podagra, &c. Secondly, in respect of the quantity, and quality, groffness or fubtilty of the Gouty matter, more or lefs malignity; whence proceed the denominations of the Running and Fixed, Young and Old, Adventitious and Hereditary Gout. Thirdly, in respect of the greater or less afflux of humors. Fourthly, the Gout is either with nodes, or without nodes. Fifthly, there is a Gout which is feated in or about the Joynts, and another (though that be rarely perceived) which lodges it felf in the midst of the limbs: And this is to be noted against all those, who will not acknowledg fuch a Gout for any Gout; which is a great mistake, and no longer tolerable, because Experience teacheth us otherwife.

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CHAP. XVII.

Means useful to prevent the Gout.

Q. W Hat general means do you think to be good to prevent the Gout?

A. These following : First, you must beware of windy meat and drink. Secondly, you must avoid great and violent commotions of the mind, especially the passion of anger. Thirdly, neither must you put your body into too violent motions and exercifes, nor afflict it with nightwakes. Fourthly, you must take continual care to keep your body foluble, and to prevent coffiveness, nor to remove the fame too fuddenly. Fifthly, 'tis beneficial, to take a gentle Vomitive after your meal, once a week. Sixthly, as foon as you perceive any figns of a Fever (the mother of the Gout,) then is it proper to take a fudorifick, by the advice of fome experienced Phylitian, to open the pores, and

Of the GOUX. 119 and to promote evaporation. Eighthly, fince that many of the chief Phyfitians forbid wine to Gouty perfons, as if it were poifon to them; (though Sennertus is not fo peremptory therein, but that he allows even to those that actually are in a gouty fit, a cup of good and fincere Rhinish wine, especially if the Patient cannot forbear it :) I fee no reason in the World, why these Patients should be so quite debarr'd this strengthning and cordial liquor, (wine,) as in and after the fit; especially if it be a good condition'd wine. And my opinion is, that fuch a wine is fo far from being noxious, that it is beneficial to them, for many reasons, which Van Helmont alledgeth at large in his Book of Fevers; whose judgment I cannot but fubfcribe to in this matter.

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CHAP. XVIII.

Of the Tooth-ach or the Gout of the Teeth, and the Cure thereof

Q. IS there also a Gout of the teeth; for I have been inform'd by Dr. Wilhelmus de Ryne, who lately is arriv'd here, that there is publisht a treatife in Europe, entituled, Of the Gout of the Teeth?

A. Thus is very properly express that kind of tooth-ach, which hath the fame proximate Cause with the Gout, and ariseth from cold Damps, as the Gout doth, which otherwise, according to the common opinion is bred from Defluxions.

Q. But ferioufly, do you think, that the Gout and Tooth-ach come from the fame Caufe ?

A Ti's certain to me (whatever fome may alledg to the contrary,) that the next caufe, the part afflected, the feat, the ways, the fignes and fymptoms are the fame in these diftempers

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rempers, and do agree together. Q. Is then the Cure of the Toothach to be perform'd after the fame manner as of the Gout?

A. By no means; the Tooth-ach is to be cured in another place, becaufe that the place, where the pain hath its feat here, is within the mouth and the teeth, where you cannot come to burn with our Moxa?

Q. Would you then have the Temporal Artery open'd with a lancet, (this feeming to be the way by which the evil damp may be expelled out of the teeth;) as fome hath ventur'd to do, to the great eafe of the pain?

A. This means is too dangerous, because it is very subject to occasion an Aneurisma, and spends too much of the vital spirits.

Q. What do you fay then of fcarification in the neck or upon the fhoulders; or of purging, or of bloodletting?

A. These and the like remedies feldom give ease.

Q. Would you have then the aching Tooth pulled out?

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A. Not at all; that way being a defperate one, and not only accompanied with great pain & mifchief to the poor Patient, but alfo occafioning many evils, and even death it felf. But take me right, I pray; for I here only fpeak of that kind of Tooth-ach, which is above deferibed, not of that which comes from the *Rottennefs* of teeth.

Q. What then, may we follow Spigelius, whole manual operation Scultetus mentions in the 18th of his Chirurgical Observations; who with his knife, heated red-hot, did cut off that little branch of the temporal artery which runs through the Ear to the teeth; by which means the pain prefently vanished and never return'd. A. Tis true, that Scultetus speaks with great commendation of this device, calling it a Chirurgical receiption

vice, calling it a Chirurgical remedy of wonderful vertue; which the Author hath firft practifed upon himfelf, and afterwards, in *Scultetus* his prefence, upon others (always with good fuccefs:) And this hath been further improved by others: For

Of the GOUT. 123 For whereas Spigelius made use of a red-hot knife, to cut off the faid little branch on the outfide of the Ear; others have used a little flat cauterifing Iron, in a filver cafe, that they might go safely, and not burn deeper than was fit; and therewith they have burnt off and fear'd within the Ear, the fame ramification of the Carotid Artery, with the like happy fuccess : As I my felf have experienced 26. or 28. years ago at Arnheim, where Dr. N. Coets did, by this means, immediatly free me from an intolerable tooth-ach. I have also underftood here in India from very credible Persons, that D. Godefridus Dellius, Minister at Kooten near Wyck of Durstede, hath cured many of that pain by this very means."

Q. Since this is fo excellent and effectual a remedy, fhall we then ft and by it, or is there fomething to be faid against it?

A. So there is; and to deal plainly with you, it ought to yield to a better remedy, viz. to our burning with Moxa

124 Dfthe GOUT. Moxa, the which in the Gout of the Teeth ferves not only for a discharging but also for a revulsive intercepting remedy, which always produces good (if used according to my prescript) and never the least evil. For, whereas by the former way, of using the red-hot knife and the cautery, the body lofes one of the necessary and the nobler kind of blood-vessels, to the detriment and spoiling of the teeth; by our way those vefels are preferved entire and unhurt. T'is true indeed, that the pain of the teeth by the former art is fo removed as that it never returns (in cafe that whole branch be burnt off;) but this is also true, that by fuch a cauterifing operation there is for ever cut off that afflux of the bloodand vital spirits, through this fear'd artery, to the teeth; whereupon at last must follow an exiccation and mortification of the teeth.

Q. Since then you preferyour burning with *Moxa* before all other remedies in the 'Tooth-ache alfo, pray, teach me, where it is to be applyed?

A.

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A. Just upon the temporal artery, where the fame in the Temples, not far from the Ear, beats strongest in a violent Tooth-ache; which is that place where Chirurgians are wont to apply their Mastick-plaisters, &c.

Q. But is the burning with Moxa upon the temporal arteries not too dangerous?

A, Not at all, if your work be done carefully; yea it is a means very beneficial, and hath been practifed by the father Phyfitians, of *Hippocrates* himfelf.

Q. After what manner then is this Burning to be performed; must it be done as in the case of the Gout ?

A. Juft fo; only you must in this case Kindle leffer pellets, and these to the number of three upon one place, and no more; though it be not forbidden, at some little distance from the burned place to perform anew the like burnning; which may be done not only without fearing the least mischief from it, but also with an expectation of more ease.

Q. Is this Burning followed by a Mitigation

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Mitigation or by a Removal of the pain?

A. It performs both, in an admirable manner, and that inftantly, or prefently after, without fail; unlefs, unknown to the Patient and Operator, the Tooth-ach fhould proceed from a hidden rottennefs of the Teeth.

Q. But, Sir, how will you make it out, that this is a revulfive and intercepting remedy, and withal difcharging the part affected from the evil which afflicts it ?

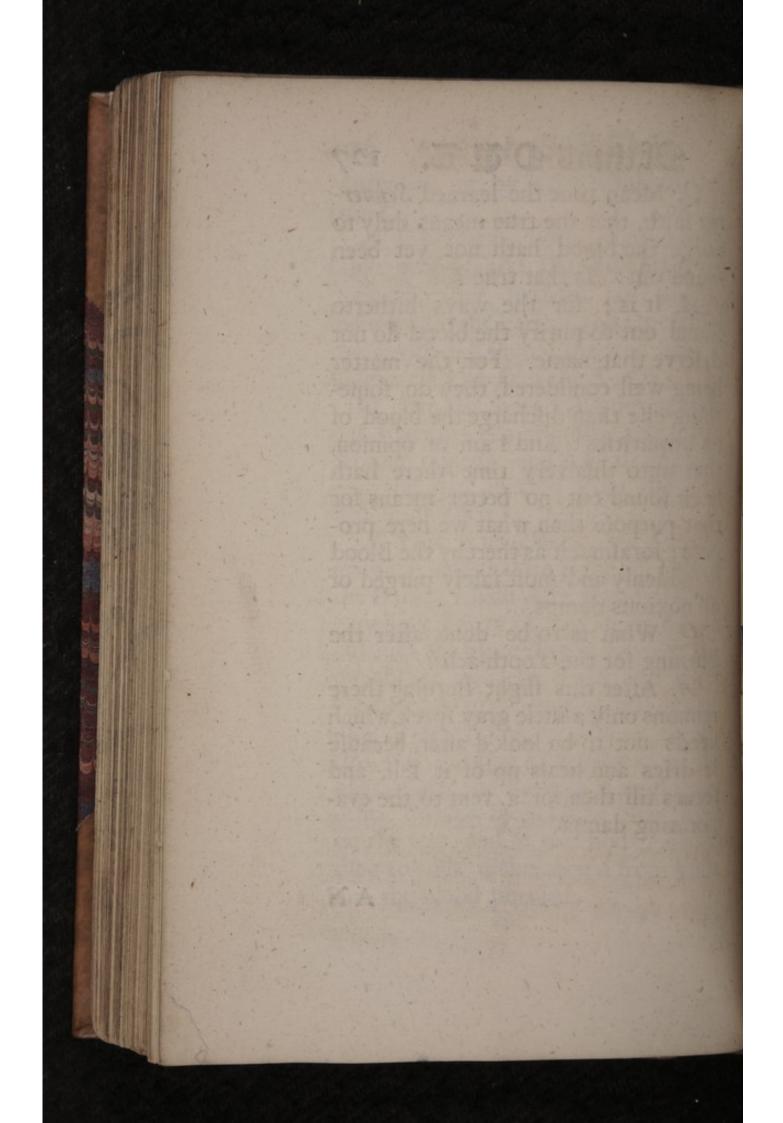
A. This is as clear as the Sun at noon-day, and that from the effects: For the Damps, which were already by the expelling power of the Heart driven out into the place that is between the membrane and the teeth, and there produced fo great pain by the expanding of the fenfible membrane, are by this our Burning drawn back to the place where the Burning is made, and other Damps intercepted that were on the way, and fo the body, according to wilh, disburthen'd from both, and the blood purified. Df the 5 D U. T. 127 Q. Mean time the learned Sennerus faith, that the true means duly to purge the blood hath not yet been ound out: Is that true?

A. It is; for the ways hitherto ound out to purify the blood do nor leferve that name. For, the matter being well confidered, they do fomehing elfe than difcharge the blood of ts impurities: And I am of opinion, hat unto this very time there hath been found out no better means for hat purpofe than what we here propofe; forafmuch as thereby the Blood s fuddenly and most fafely purged of all noxious damps.

Q. What is to be done after the Burning for the Tooth-ach?

A. After this flight Burning there remains only a little gray fpeck, which meeds not to be look'd after, becaufe wit dries and heals up of it felf, and ferves till then for a vent to the evaporating damps.

AN



Dfthe GOUL. 129

A P P E N D I X

Concerning Three Remarkable

OBSERVATIONS.

OBSERV. I.

About the Removal of the Falling-Sickness by our way of Burning with Moxa.

Acobus Jonas, about 13 years of age, Son of Jonas Aertz, who was chief Chirurgion in the Hofpital of the Noble Company in Batavia, having taken a fancy (againft his Fathers command) to fee the fad and difmal agonies of dying perfons in a place where defperate and incurable perfons were lodged, did upon a Sunday morning fee one of those give up the ghost in so affrightful a manner

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manner under such terrible convulfions, that being more than ufually terrified therewith, he could not forbear to speak of it at Table with amazement : At which relation his Father being much troubled, did feverely rebuke him for fo dangerous a curiofity, strictly commanding him, never to repair to that place again, from an apprehension, least one time or other he should rue fuch a curiofity. But behold ! The boy laying himself down upon a bench after dinner, to take (as 'tis common in that place) a nap in the afternoon, there appear'd to him (as he related afterwards) in a dream that fearful departure of the dead, fo lively to his fancy, that in a fright he awaken'd, crying out a loud, and, feifed on with a terrible fit of the Epilepsy. To which diftemper he remained a great while fubject, and in fuch a manner, that upon the least disturbance he fell into new fits, of which his Father was not able by any of the means by him employed to free him. This

Df the G DUI T. 131 This did fo grieve the good old man, that in all likelihood it contributed not a little to his hafty death.

It hapned, that upon occasion I vifited the widow of this Chirurgeon, where feeing this Youth halting, I asked what the caufe of it was. He shewing me a swelling above his left knee, accompanied with grievous pains; I was apt to conclude that it was a Gouty diftemper, and refolved, thereupon, with the confent of the parties concerned, to treat it as fuch; employing my way of burning, which I did with three pellets confumed on one place : whereupon all pain being vanished, the youth instantly walked without any inconvenience. I put upon it a Coridons plaister, and order'd him to renew it twice in 24 hours. And fince that time he never had any fit of the Falling-ficknefs; doubtless because that the venemous Damps, which caufed this grievous distemper, had been evaporated out of the body, or rather had been thence drawn out by the Moxa. And 'tis bo-K

132 Of the GOUT.

observable, that (according to the relation made me by the Lad's Mother,)this Damp never caufed in him a fit of the Falling Sickness, till it had first for a while tormented the place above-mentioned, no otherwife as if it had been the Gout. Now, when this peccant matter did afcend from the knee to the Head (which ufually fell out every fixth or eighth day,) it was attended with a fenfible Cold in the passage of this Damp, yet acting fo flowly, that the Youth had time enough to give warning to his Mother of a new fit, that fo fhe might take the better care of him.

OBSERV. II.

Concerning the Cure of a Mad Female-Shave, by the Burning with Moxa.

Rfulz, one of our Female-flaves, being fent out to buy fome fish for our family, and come to the place

Of the GOUT. 133 place where the Fisher-men use to be with their boats, and having feen one' of them arrived with fill, the flept over several of those boats to get into that, where she might buy. Which having done, and stepping back again over those boats to shore, she was frighted at the fudden and unexpected fight of a drowned Humane body, she had stept over, that had been brought up to be viewed by the appointed Officer. Which fright did so feize her, that she fell down and quite fainted away. But being fomewhat recovered, fhe was brought home with the fish in her hand, but out of her wits; which the fame night was follow'd by fuch a fit of Madness, that at first we knew not what to do. But having recollected our felves, we refolved to fend for the Guinam-Doctrefs, to hear her advice, fince she had fo fuccesfully cured me of the Gout. She came the next morning, and being well inform'd of the circumstances of this cafe, and demanded whether fhe knew any reinedy K 2

134 Of the GOUT. medy for it, fhe answer'd, That she would use her Art, and hoped God would blefs her operation. What doth fhe ? She bids the other flaves that were prefent to hold this poor fhe-flave fait, and binds the hair of her head close together, into a knot; which done, fhe makes one of the most robust flaves to hold that hairknot with his hand, and to turn the Patient's head which way fhe, (the Doctrefs) would have it. Whereupon she began to burn with her Moxa close under the hair, from the fore-part of the head unto the neck, and from the neck again to the forepart, round about; performing this To artificially and gently, that hardly any mark could be perceived : Whereupon this poor mad creature, to the admiration of us all, fell into a fweet fleep, of which she awaken'd towards evening in very good health and in her right wits, without ever after relapfing into that grievous fit of madness again; it being now about Ten years fince her recovery. OB-

Ofthe GOUT. 135

OBSERV. III.

Touching a Strange Catalepfis or Stiffness cured by the Moxa.

Ne of our she-flaves, which my Wife had lent to our chief Chirurgion William Persant (who a little while before had married one of my, daughters,) was about evening, as the was at work without doors upon the wall, fuddenly furprifed with this distemper, so that in a trice she became as stiff as a statue, without any hearing, feeing, fpeaking, or moving any limb. The faid Chirurgion having tried upon her the utmost of his skill to no purpose, and I being made acquainted with the condition of this wretched flave, my Wife and Son, upon my defire, went immediately to her, and according to my direction burned her upon the Arteries of her temples: Which was no fooner done, but she recover'd the use of her fenses and the Motion of all her limbs,

K 3

and

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and fhe enjoys to this very day a good state of health.

I conclude with the advice of the never too much celebrated Nicolaus Tulpius, in the first Book of his Medical Observations, chap. 8. where he faith, Tou Chirurgions, take good notice of the wholfome Use of Causticks; it shall turn to your Credit, and to the Benefit of your Patients.

FINIS.

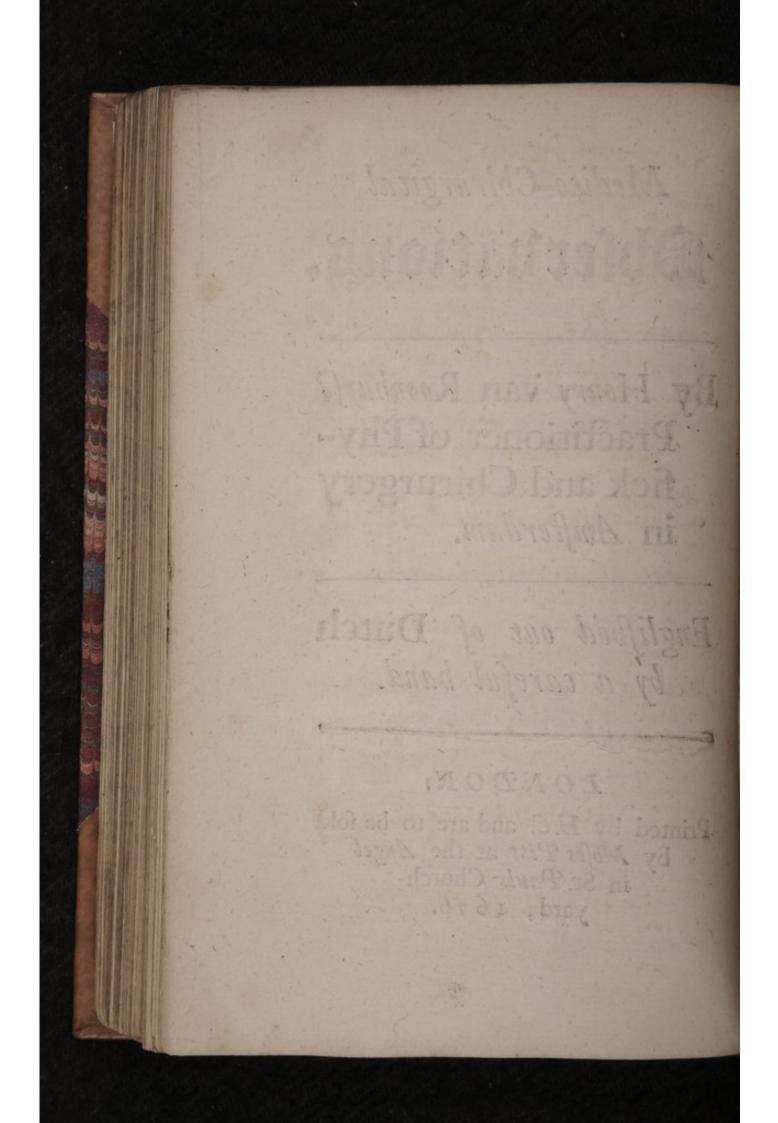
Medico-Chirurgical Phfervations.

By Henry van Roonbuyfe Practitioner of Phyfick and Chirurgery in Amsterdam.

Englished out of Dutch by a careful hand.

LONDON

Printed by H.C. and are to be fold by Mofes Pitt at the Angel in St. Pauls Churchyard, 1676.



TO

The Noble and Famous

NICOLAUS TULPIUS

Burghemaster and Counfellor of the City of AMSTERDAM;

And at prefent One of the Commissioners of the States of HOLLAND,

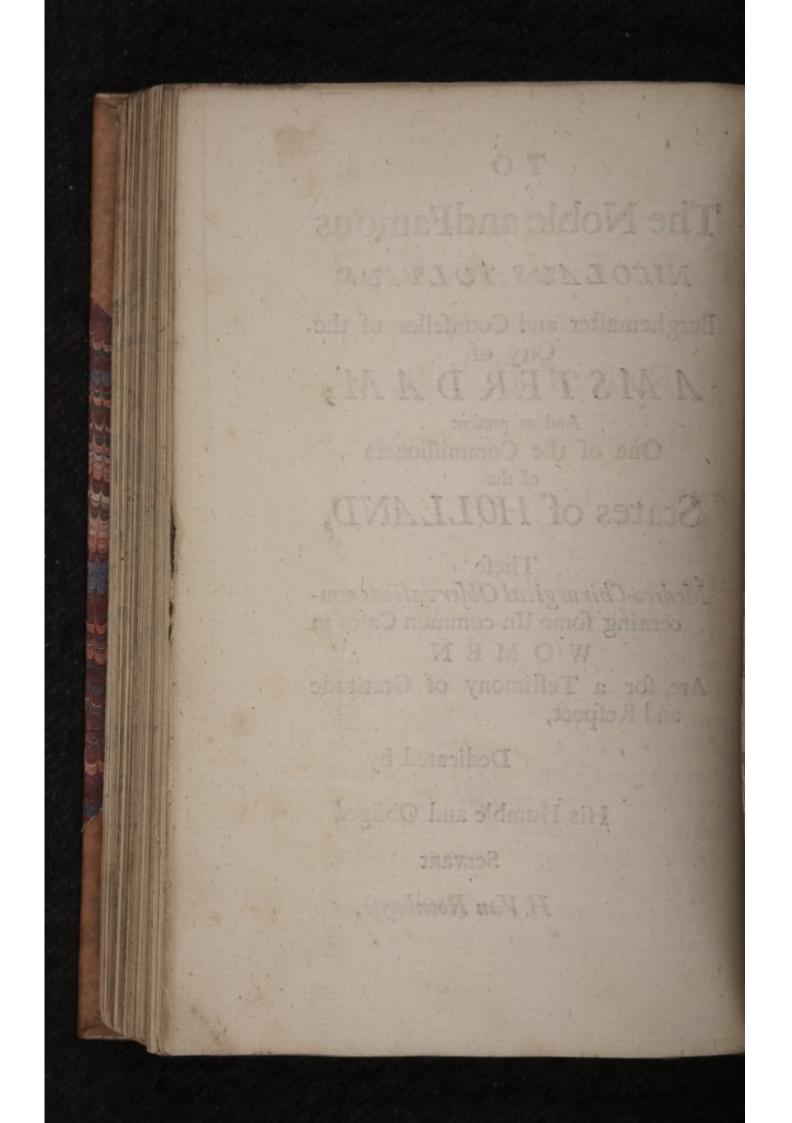
Thefe Medico-Chirurgical Obfervations concerning fome Un-common Cafes in WOMEN Are, for a Teftimony of Gratitude and Refpect,

Dedicated by

His Humble and Obliged

Servant

H. Van Roombuyfe.



THE PREFACE To the READER.

Socordis est, acquiescere in Veteribus.

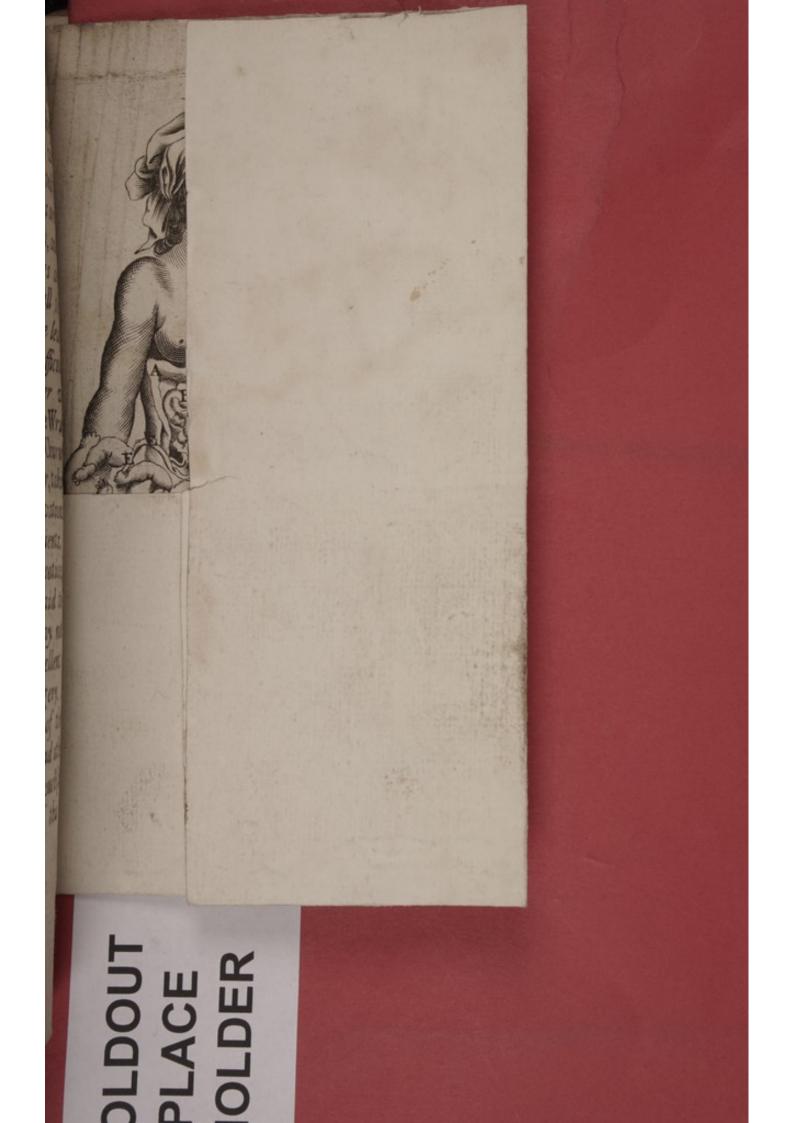
THE Motives inducing me to publish these Rules and Observations are divers: The chief of them is, that what I take notice of therein, is not only serviceable to my self in my practice, but also useful to my Fellow-creatures; to whom I intend, if my health and leisure permits, to impart some others; not doubting, but the Reader will take them in good part, and in case he find any thing obscure or doubtful, he will oblige me by giving me notice of it, and thereby an opportunity of explaining my self.

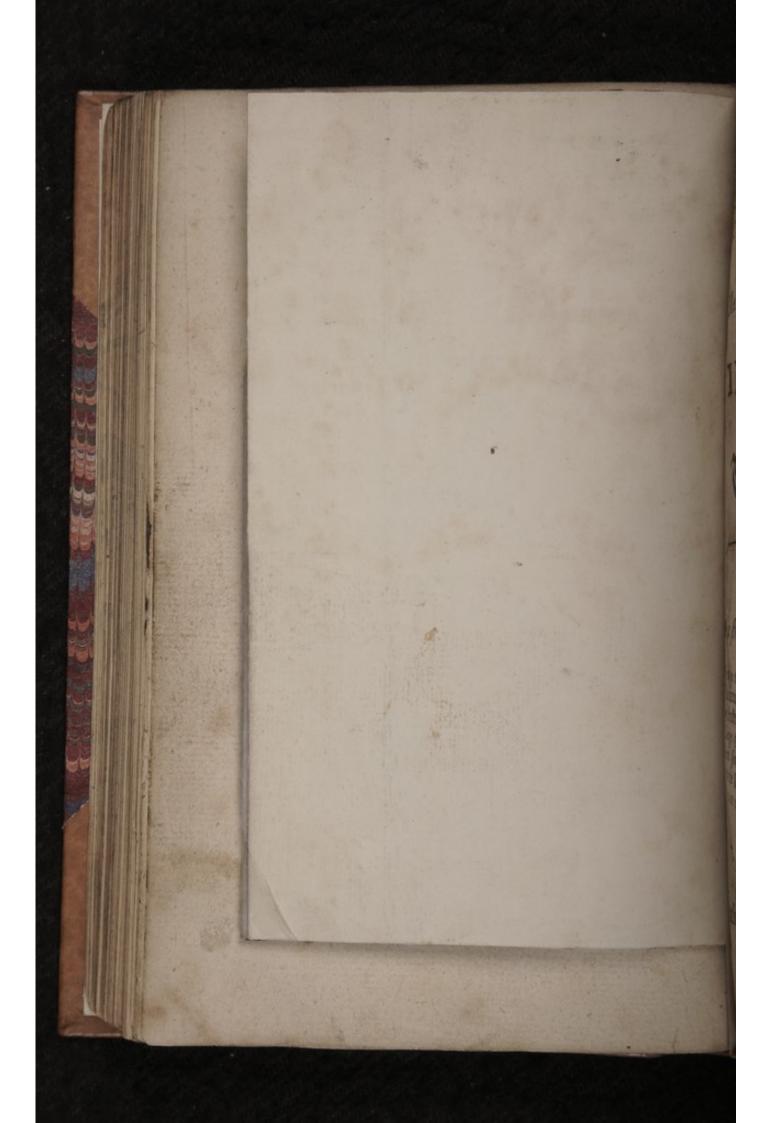
As to the remaining Observations.

The Preface.

I Shall fay little; only I take leave to intimate, that according as these, that are now printed, Shall meet with acceptance, fo I shall be excited to publifb those. The present ones are by me esteemed the most necessary, and such about which most mistakes are committed, and that are of all the Chirurgical Operations not the least, but some of them of the most difficult. By these you may judg, whether we do content our felves with the Writings of the old Physitians and Chirurgions; or whether we go further, taking heed to these and other Observations, to the ease and benefit of Patients. Herein then you may take notice, that if there be so much to be said to so few Observations, what may not remain to be written of so excellent an Art as Physick and Chirurgery. Accept of this small number of them, and uje them for your self and others, and expect in time, God vouchsafing me life and bealth, more of this nature. Farezel.

THE





THE FIRST PART

OF THE Medico-Chirurgical Observations About the INFIRMITIES OF

AUnen.

Observation I.

Of a strange Rupture of the Uterus.

Written to the Famous and Experienced Job van Meeckren, Chirurgion in Ordinary to the City of Amfterdam, the Hospital, and the Noble Colledge of the Admiralty.

Wherein Several such-like remarkable Accidents about the Uterus, and other odd Cases of happy Cures are related.

SIR,

W Hat Hippocrates saith of the most Dangerous Diseases, that they require the most difficult remedies,

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medies, may be juftly applied to that dangerous Birth call'd Cafarean; though, if good Authors may be credited, many have had good fuccefs therein: Of which not a few differing Examples are recorded by the learned Franciscus Roussetus, in his Book de Usterotomotokia, and by fome others. But in these our times very little is spoken of this operation, for several reasons:

1. Because of the flender knowledg that most Midwives have, not only of this Operation, but also of others. For if they knew or confidered, how neceffary, in a well-conftituted state, this operation and extraction of the fætus (the Mother being dead before) is, and that Civilians account it Homicide, to bury a dead woman big with child, before the child be cut out of her belly; they would be more concerned for it. Jurisconsulti eum necis damnant, gui gravidam sepelierit, non prins extracto fætu, quod spes animantis cum gravida perisse videatur ; lib. 2. De mortio

Dblerbations.

mortuo inferendo, & sepulchro ædificando. So that, when it happens that a Woman great with child cannot be delivered, there should always a Man-midwife be at hand, to fave the fruit and to perform this noble operation, in cafe the Mother die before she be delivered. Valerius Maximus, l. I. cap. ult. relates, that a certain Gorgias coming into the world after his Mothers decease, did by his unexpected cry ftop those that carried the Corps, and fo was carried out before he was born. See hereof Fabritius Hildanus in his Answer to Michael Dorengius, Chirurgion of Breflaw.

2. Becaufe it is a difficult and troublefome operation, efpecially for fuch as are not experienced in Anatomy, and confequently know not what the *Cæfarean Section* means. Which is nothing but an extraction of a *fætus* out of the womb of a woman, that cannot be delivered but by the incifion of her belly and womb, fo to be made as to fave, if poffible, both mother and child,

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child, and that without impairing Fruitfulnefs; of which last fee, among others, Paulus Dirlewang, who performed this Casarean Section upon a woman of Vienna, called Margareta, fo as that a year after her cure flie was with child again : Whofe time of travel approaching, and she finding her felf unable again to be delivered, sent also this second time for the faid Master, who though he found the woman very weak, yet perceiving the child ftrong and vigorous, advised again to use the knife as formerly, which the woman, who could not be faved without it, confented unto. But her Mother and others diffwading her from it, and exhorting her to truft rather to Almighty God for her delivery than to undergo again so hazardous an operation, fhe complied with them. But seeing that this woman had caried her former fruit four years in her belly, whence it was at laft cut out by piece-meal, whereupon the was happily cured ; why might not fhe have

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have been faved this fecond time, if the child, which was strong and lusty had been cut out by times.

3. Some are of opinion, that e nough hath been written of this operation, and that nothing can be faid but what hath been already faid by others. But I am of a contrary opinion, that whatfoever hath been written of *Phyfick* and *Chirurgery*, is not to be compared to what yet may be written thereof.

As for an example, *firft*, concerning the cutting fuch an *Hare-mouth*, in which the upper Jaw-bone together with the Palat of the mouth is cloven, and the Lipps are a full inch gaping afunder : How much doth fuch an operation differ from the inftructions left us by famous Writers?

Secondly, as to women in travel, whole dead fruit is to be taken from them, I observe, that the chief Authors that have written of it, have been very little versed in that operation; nor that the instrument, cal-L led

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led the *Hook*, is very convenient to pull out a childs head left flicking in the mothers belly : And what fmall ufe, if any at all, there is of the *Speculum matricis*, in this cafe, I leave to you to judg.

Thirdly, As to the taking out of the Uterus it felf, of which many famous Authors have written fo much, I have largely treated thereof in a particular Observation, whence you will easily understand my meaning in this point.

Fourthly, At this very time we understand both by Letters, and from Patients, something very confiderable touching a new contrivance of *Cutting the stone*, practiced in *France* at *Bourdeaux* by a Lithotomist called *Raous de Chastres*, now dwelling at *Nismes*, used both upon old and young, and that after a quite other manner than hath been practifed hitherto. For, after that the Patient hath been sounded and felt by the Artist after his own way, without any bodies being prefent, he then together

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ther with the Patient walks for half an hour in his chamber, and then puts him in his fervants lap, who holds the Fatients leg without tying him, and the Master useth no other Instrument but a little crooked knife, and no bands; nor doth heuse any force in preffing the belly, in lifting it up, or the like, thereby to get the stone between his fingers. 'Tis also done with less trouble and danger, without as much as observing the seafon of the year, the Temperament of the Patient or his Age. He only thrufts two fingers into his fundament, fo to get the ftone ; which having compassed with little pain, he conveys it with his fingers to the Os ischium as far as he can : And then a little higher making an incision with his little crooked knife, of the ufual bignefs, but fomewhat higher, and obliquely, beginning from the fide of the faid Os sschium, and fo continuing to the Perineum; which incifion or opening is more (in that place) according to the grain of the Fibers; 1 2

as

8 Bedico-Chirurgical as will be found, if viewed attentively. Now, a fmall opening made according to the grain of the fibers, will yield much more, and can by laceration be fomewhat widened, if it have been made too little; (for the wound, that is to be made in cutting the stone, is better a little too small than too great;) and by this means with his fingers he eafily draws out the ftone, without the use of any other instrument ; and after having cleanfed the wound, he conveys and thrufis back the bladder to its place, whence it had been removed ; preventing also the droppings of Urine, by dreffing the Patient with an ordinary band, who in feven or eight days is perfectly cured. I have also read a printed letter, entituled, La nounelle manzere de tailler la Pzerre, i. e. The new manner of cutting the fone, wherein'tis affirm'd, that then ihis Master had already cut, after this way, above 50 perfons, of 20, 30, 40, 50 and 60 years of age, with fo good fuccess, that not one of them all

Oblerbations.

all had died, yea that very few or none of them had had fo much as a Fever. Thus you fee, that Art is more and more improv'd by continual difcoveries, for which we ought to praife almighty God, vouch fa fing fuch and the like new remedies to the benefit of mankind.

The Hiftorical observation, Sir, which I have chosen to dedicate unto you, is of the Rupture of a womb, in fuch a perfon, out of whofe belly the fætus was cur, after she was dead. The hiftory whereof is this : In the year 1658, the 24th of December, I was fent for in the morning about eight of the Clock, to come into the Laurel-street, to give my advice and affistance to four of the Town-Midwives. These were disputing amongst themselves, whether the fruit of this woman in travel lay right or not; which difpute was the more cager, because the poor Patient had then been already four days in labour, with great throws and pangs, highly complaining of grievous pains in her left fide,

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ro Medico=Chirurgical fide, about and above the navel. The Midwives differ'd very much amongft themfelves touching the condition and posture of the child. One of them was of opinion, that it was tnrn'd right; another of them, that it was turn'd the wrong way, and was coming with its feer foremost; a third would have it, that it lay with his fundament before the paffage, and that she had had her singer in the fundament; and the fourth faid, the had felt the child's hands. So that, after long inquiry, I did not think it strange that they were thus quarrelling, and fo wide from one another in their fentiments ; whence I collected, that it must needs be a difficult and dangerous cafe; finding, they could not give me any good information concerning the fruit, but inveighed one against another with keen reproaches of ignorance and miftake : Which I interrupted by telling them, that these contentions and invectives were not the means of helping this roor woman, much lefs the hatred which

Dblerbations.

which they feem'd to bear one another. Mean time I thought it most advisable, to fearch into the matter my felf, thereby to be enabled to prove by reasons (of which they alledged none) which of all the four was in the right, and which not. And this being a dangerous work, I began with making fearch of the flate of the child, by laying my hand upon the navel of the belly, and defired. the woman to hold in her breath, thereby to straighten the fruit, and confequently to put it into a stronger motion. At which time the poor woman cried and wept bitterly, and complain'd exceedingly of intolerable pains in her belly and loins, yet most of all above her navel, about the lower part of her flomach : The other parts of her body I found to be very well, but not as in a woman in travel; for the internum Ulteri osculum was yet very close, nothing but a little moisture ouzing out; but as for a child, there was no appearance of any fuch thing to be perceived. LA

II

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ed. And this poor woman having had more children, the ftrove to bring forth this child with all her might; to which he was encouraged by the Midwives aforefaid. But I, having made careful fearch. and weighed all things, forbid the Patient to strive so hard, forasmuch as the child, in my opinion, was yet in the membrane call'd Chorion, which is the most outward coat wrapped about the Fruit; and that those Midwives did all mistake the state and condition of the child, especially she that affirm'd, fhe had had her finger in the childs fundament ; and I added, that, whereas they all judged those pains to be throws for bringing forth, I was of a contrary judgment, viz. that by those pains no child would be brought into the world; but that, if this woman should be delivered of a child, there must be made an opening in her Belly, shewing them the place where ; which operation, I faid, had been often performed, witness several excellent Writers, who call it the Cafarean Incision. To

Observations.

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To which the Midwives answered, that they had never heard of fuch a dreadful operation. However, the poor woman, who was French by nation, lookt upon me with fome chearfulnefs, and intreated me, that I would use this operation upon her, throwing off at the fame time her covering, and prefenting her belly to the knife. Which, when I faw, I faid to her in a kind tone; Dear friend, you hear, that these women have never heard of this operation ; befides, 'tis not the cuftome in this Country, to practice fo extraordinary an operation without the confent of the Lords the Burgemasters ; after the fame manner, that the Operators in cutting the Stone are wont to do : And I should very much be blam'd and reproached, if this unufual and difficult operation should fail of good fuccefs; which God forbid.

Notwithstanding which, this poor woman made instance, that I would put my advice in execution; for, without it, she faid, both she and her

14 Medico-Chirurgical her child would be loft : Affuring me at the fame time, that fhe had formerly been present at fuch an operation in Paris, and therefore intreated me to make use of the same upon her. Whereupon I encouraged her, and faid, I would confult with fome of the best Physitians in Town,& defire their affiftance and direction in this cafe. Which having been done by me, they diffwaded me from it, because of the great consequence, efpecially the woman being very weak. Returning therefore to her, I only prefcribed her an Emollient Clyfter, and exhorted her to fome patience. The Clyfter was this. R. Fol. Bismalve, m. I B. Artemilia. Matricarie. Pulegii, aa m B. Flor. Camomill.

Mehlot, aa pugil. iij.

Sem: anisi, sænic. aa 3ii. Fiat s. a. decoctio; colaturæ sumantur zvij. in quibus dissolve Electuar. sequens. Di-

Diacath. Lenitiv. ana 3 j. Ol. mucaginum 3js. Misce, fiat clyster.

And to renew her ftrength, as alfo to eafe her pains, I prefcribed this potion following, to take now and then a fpoonful of it.

R. Aq.fæniculi ziiij. Artemisia zij. Cinnamomi zj. Conf. Hyacinthorum zij. Laud. opiat. gr. j. Croci. Əß. Misce, fiat potio.

Coming to her again about two a Clock in the afternoon, I found the Patient yet weaker, and in appearance near death. Which made me give order to the Midwives, that as foon as they perceived her fenfes fail her, and that fhe was agonifing, they fhould forthwith give me notice thereof, feing that the child did yet ftrongly ftir in the mothers belly, and, if they poke in good time, there was hope to fave the child, and fo to acquit our felves of our duty. There paffed not full four hours after this, butI re-

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received news that the woman was dying ; which made me call, in my way, upon fome Phyfitians I knew, viz. the learned de Vick, Pifo, Sylvius, and Walterus ; of whom Francis de Vick and Pifo promifed to follow us.

Being come there, we found the poor woman dead, having a key betwixt her teeth to keep her mouth open; which is practifed amongst the vulgar, who thereby think for a while to keep the child a live, as they also thrust their fingers into the internum uteri osculum, to keep that likewife open, for the childs refpiration. Now, when I laid my hand upon this womans belly, and perceived no motion, I leapt upon the bed, and gave Dr. Sylvins my Anatomical knife to open the Belly with all speed at the place where I formerly had found the greatest motion, to wit, on the left side, where the fætus lay, hoping to find it yet alive : But we failed of our hope, for it was dead, though in all appearance it had been

been fo but a very little while, feeing the poor thing had its lips yet cover'd with fome, and very fresh, fo that 'twas evident, it was but very lately expired.

Examining the pofture of the child, we found, that it lay in the midft of the Belly, between the Guts, together with its After-birth in part fo firmly fastned to the Colon, that we could not separate it from thence without laceration. By the other parts it was yet fast to the Uterus. an inch broad ; which, in my judgment, was the only thing that enabled the child to live two or three. days in the mothers belly, without the womb; and I looked upon it as a wonderful Providence of Nature, that the After-birth, although it was by the shooting out of the Fruit removed in part, had forthwith fo clofely fasten'd and united it felf to the faid Gut, that it could perform its function, it being yet in part fast to the Uterus; as apears by Fig. 1. where,

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AAAA, are the common integui ments of the abdomen.

BBB, the Guts.

C, the Womb.

D, the After-birth.

EEEE, the Navel-string extending to the After-birth.

F, the Rupture of the Womb.

G, the Bladder.

First, we found the child lying between the Guts.

Secondly, the After-birth was in part fait to the Guts.

Thirdly, the fame as to its other part was yet fast to the womb.

Fourthly, we found a great opening or laceration in the Womb.

Fifthly, we met with fome black coagulated blood in the Belly.

And here we much wonder, not only how this poor woman came by this mifchief, but alfo how fhe could endure fo great pain, as muft needs accompany it.

As to the *Caufe* of this evil, I judg not that to be internal, but external; *viz*, fome Fall, or Blow, or Knock,

or

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or fome other outward accidentwounding that part, whence ftore of extravafated blood was diffufed between the membranes thereof, whereby the womb was then difenabled to endure any throws in the labour, and the ftrong & ftriving motion of the child, whofe hand or hands broke through, and then the water breaking alfo, the child fhot whole into the cavity of the belly, and fo caufed its own and the Mothers death.

Befides, there is this reafon which made me believe the caufe to have been external; for we found nothing in the cavity of the belly but black extravafated blood, and water, not at all mingled with any purulent matter, which shew'd, that it was not come to pafs by any Ulceration; fo that I must conclude, this Woman had either received a forcible blow, or had a violent fall upon her belly. Where it is to be confider'd, that in a child-bearing woman by fuch a force and violence the inward parts are more wounded than the

20 Dedico-Chirurgical the outward. For when the skin and other teguments are struck and contused, the extravasated blood can be better confumed, and by the pores of the skin discharged, than such blood can be by the carneous membranes of the Womb, inclosed between two membranes. Befides, the teguments of the belly may be by a knock preffed inwards, whereby in fome meafure they evade the force; but the womb is a thick, foft, fpongious, and in child-bearing women very much expanded part, clofe woven through with Veins and Arteries; which, by reafon of the confent of all its parts with one another, cannot endure any violence, but receiving the least contusion, upon bleeding, prefently relaxes, and tends to putrefaction, which is promoted by the heat of the part. So that in our cafe the Womb was not able, as I faid above, to relift the force and violent motion of the child in the labour, which, with its hands piercing through the weakeft part of it, made way for the whole to pass through, and

and to fall into the belly. Whence it appears, that there was no other means but the Cafarean Section, to fave the Fruit and Mother. For that the Womb, being affifted, can refift mortification and putrefaction, I have found in divers cafes, of which I shall here alledg one of the most confiderable, which hapned when I ferved the eminently Experienced Chirurgion Roger Rogertsen Berenaert, who was fent for, together with Dr. Francis de Vick, to come to Uylenburg, to fee a Ship-Carpenter's Wife, that complained very much of great pain about her fundament, and intreated my Master to view and fearch the part; who by his stilet found in the intestinum rectum somewhat of a bony fubstance, which being further fearched, and drawn nearer, was found to be the two feet of a child, each foot of half a fingers length. This giving my Mafter ground to ask the woman, whether fhe had ever been with child, he was answered by her, she knew no better but that flie was with child M now.

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now, and, to her best conjecture, four months gone. Whereupon my Mafter immediately went to work according to art, by extracting the Fruit by the feet through this unnatural paffage; which was alfo follow'd by fomething that came away from before. Behind, there were yet fast fome of the vertebræ of the back-bone; and the other parts of the body, I mean of the breft and head, came not away but by parcels, and by the natural paffage nothing came away but a small rib. These parts I washed with brandy to free them from ftench: And it being winter, I exposed them to freeze; and then brought all to the Learned Dr. Nicolas Tulpius, Conful of the City of Amsterdam, to whom my Mafter shew'd it, relating to him the circumstances of this cafe. The woman her felf was afterwards perfectly. cured, by fit remedies refifting corruption, strengthning the Womb, and removing the Fever.

I could alledg more Examples of Ulcerated Wombs; but what I have faid

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faid may at prefent fuffice. I shall now come nearer to my main defign, viz. the Castrean Delivery of a Child, for the further improvement of Phyfick and Chyrurgery.

And to this purpose; Sir, I intend to treat at large of this Cafarean Se-Etion, which, though it be a difficult and dangerous, yet is a necessary Operation : Which, according to the respective circumstances of cafes is performable two manner of ways.

First, to deliver a child-bearing woman of a live child, fo as to preferve both mother and child, when there is an impediment in nature to do it otherwife : Which is performed by opening the mothers belly and womb with a fit knife, thence to extract the Fruit alive, together with the coats and after-birth; and then by cleanfing the uterus, and healing up the wound, after the manner as the wounds of the lowermost venter are wont to be healed.

But this is not to be attempted, until the delivery by Midwives is despe-M 2

rate,

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24 Bedico-Chirurgical rate, and till all other means prove ineffectual, and the mother is reduced to extremity, and cannot be delivered any other way; this being the only means left to preferve both Mother and child, which may prove fuccesful, if their forces be not too far spent, but are in some measure yet available; though it be not to be used, unless the Mother and fruit be fo weak, that neither of them can be otherwife preserv'd. Examples whereof we have in Scipio Africanus, (who is the first recorded in hiftory, that was thus brought into the world, his Mother not yet being quite dead ;) in Manlius and others. And the faid Scipio was the first of all, that was call'd Cafar by the Romans, For they were not call'd Cafars from Julius Cafar, Emperour of Rome, but, as Casper Baubinus observes, sortiti sunt nomen Cæsaris, quod e matris casi fuerint utero.

This kind of Section was made by a very ftrange and fad accident at Sardam in the year 1647. the 29th, of August

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August. For the child was not cut

out of its Mothers belly, but the Mother coming to fuccour her husband, who was by an enraged Ox push't to the ground, and mortally wounded, had her belly torn up from the right fide to the left by the horns of the fame Ox, and was her felf toft up into the air, the fruit of her belly with all its appurtenances falling to the ground, and the Mother and child being afterwards found alive, lying four fathoms diftant from one another. The man, call'd Jacob Egh, lived, after he had received his deadly wounds, 36 hours, and his wife, 41 hours. The child was found fafe, only its upper-lip, one hand, one foot, and the genitals were fwelled and marked with black and blew fpecks ; and it was by good care preferved alive: For he was baptized the first of September by Dr. Bergius in the New Church, and called Jacob; his Godfather being Peter van Bekestein, Magistrate of Wessanon, and he lived M 3 to

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to the 23th of *May* 1648; at which time he died, and was buried in the fame Sepulchre with his Father and Mother.

But to return to our Casarean Section, there is an Author, call'd Roussetus, that hath recorded many and different examples of it, both of fuch as he had received from credible witneffes, and of fuch as himfelf had performed. He is of this opinion, that a woman having yet any strength, no time at all ought to be loft of delivering her of the child, which otherwise must die it self, and in all apparence kill the Mother.For, fhe being open'd when her forces are not quite fpent, there is hope of escaping death, if fo be that the Operation be perform'd by an experienced and careful Artift.

As to the *fecond* cafe of the *Cæfarean* Section, it is that which is done when the Mother is deceafed, and the child yet alive. In which cafe the Chirurgion is to be at hand, even whilft the Mother is yet alive, though ready to die, that fo he may immediately perform that operation, and open the

the Mother, to preferve the child; for, when the Mother is dead, the child cannot live long, as receiving fpirits and breath from the Mother; though, forasmuch as it lives by its own foul and life, it may live fome little while after the Mother is dead. Yet, Rodericus a Castro in his 4th book de Morbis Mullerum judgeth, that this operation is to be performed, not only when the Mother is in danger of death, but even when she is dying, her spirits being not yet quite extinguish't ; because that the life and motion of the child-bearing woman ceafing, the lite of the child and the motion of its heart also ceaseth, which it had received from the Mother through the umbilical veffels; the child not taking in its breath at the mouth before the Navel-string is broke off. Now its evident, that the Mother being extinct, the child cannot fetch any breath in its Mothers belly, whilft 'tis inclosed in its coats and in the womb : Whence appears the neceffity of this operation, if you mean

M 4

to

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to get the child alive out of the Mothers belly; whereas otherwife it muft be fuffocated in the womb as in a dungeon, to the great grief of fome Fathers, who may thereby lofe either their illuftrious name, or heirs to a confiderable eftate, or both. Of which not long fince there hapned a fad cafe at the *Hague*, when I was called to an *Englifh* Countefs, to deliver her of her child; but coming too late, fhe was open'd, and the child alfo, to my great trouble, found dead : which cafe prompt'd me the more to difcourfe with you of this argument.

The neceffity of this operation appears alfo from the Spanish Hiftory fpeaking of Santius, King of Navar, whole Mother being a hunting, was barbaroufly kill'd by the Saracens, giving her a wound in her belly, whereby the hand of her child came to fhoot out, which being perceived by a noble man that was prefent, call'd Gueverra, he brought the child to the world thorow the wound, and bred it up fecretly. And when after-

afterwards there arofe a great diffenfion among the Princes about the Election of a King, he acquainted them with the wonderful prefervation and fecret education of this child ; whereby all difputes were composed.

But to proceed; I intend not to detain you, Sir, with the recitation of all the *causes*, that may produce hard labour, and a troublefome delivery; but shall only represent to you the cause that necessarily requires the *Casarean Section*, not to be avoided but by the loss of Mother and child. These are, in regard of the *Fruit*;

I. When that is too fat and too big in refpect of the Mother, and therefore cannot possibly be brought into the world the ordinary way.

2. When more than one child ftrive to come forth together, and one of them being dead, lies in the way of the other,

3. When the fruit is a monfter; for example, a child with two Heads, three Arms, four Hands, three Leggs, four Feet, &c. which cafe hath come before the

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the experienced Chirurgion Steven Vennekool, the 16 th. of June 1637. in one Femmetre Jans, wife of Barent Jans, Taylor, dwelling at Amsterdam in the Wyde-steegb, in the prefence of Dr. Nicolaus Tulp.

4. When the Fruit is dead, and petrified ; of which an Example is recorded by Johannes Albofus, Medicus apud Senonas, which was of a child, that had lain inclosed in the womb of one Colomba Chatry, for the space of eight and twenty years, and was there petrified.

5. When the Fruit is all confumed but the bones, and by an Ulceration about the Navel shews the way of delivery; of which there are divers examples to be found in *Rouffetus* and others.

As to the caufes in respect of the *Mother*, not being able to bring forth, they are these;

I. When she is too streight to be deliver'd the ordinary way; and that in regard of her years, having been married too young, or impregnated too old. 2. When

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2. When by fome fcar the parts are hardned, or made narrower, or even grown together; of which hereafter I may alledg fome examples in my own practife, when I fhall come to fpeak *de clausura Uteri*.

3. When hard tumors arife in collo Oteri, which do fo ftreigten it, that the woman cannot be deliverd the usual way, and the time of delivery being come, it cannot be delai'd, untill those fwellings are ripen'd.

4. When there is any carneous excrefcence in Vagina uteri; of which I had this very year an example, where both you, Sir, and Mr. Rogert Berenart, were called to affift. 5. When the Os pubis is grown unnaturally big, or flands out.

6. When the neck of the womb is grown callous, uneven, and hard, either by fome impacted humor, caufing a *Schirrus*, or *Lupia*, or by any other hardned fwelling. Though 'tis certain, that when they are accompanied with any cancerous Ulceration, from a thin, fharp, blackifh and fetid matter, fuch women, thus condition'd

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dition'd, are never found with child.

6. When there is a carneous fwelling within the womb, which vulgarly is called *Mola carnea*, fastened to the fide of the womb, and hindering the passing of the child.

But it happens alfo, that fuch a fwelling comes to grow to the Fruit it felf; of which cafe Authors do fay, that when it falls out, fuch children feldom come to maturity, becaufe fuch fwellings withdraw from them their due nourifhment, and take away that competent room they require.

Now these Causes, which require this difficult Operation do fufficiently indicate its necessity. But yet it must be well confidered, whether it is to be executed in a desperate natural Birth or not. Wherefore it will not be anifs to weigh this matter somewhat more narrowly, and upon what eccasions this *Section* is most required, viz. Either when the Mother is living, and the Fruit dead; or, when the Fruit is alive, and the Mother dead;

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dead ; or, when both of them are yet living.

Varandæus ch. 6. lib. 2. de Morbis Mulierum, faith, that he cannot believe, the Child can be alive after the Mother is dead; affirming politively, that 'tis impossible, for a fmuch, as long as the Child is in its Mothers belly, it is maintained by no other life but "that of the Mother : From which opiinion I must diffent. For the Child lives by its own life, and motion, and foul, though it be fed by the materanal blood; fo that it may, notwithstanding, live for a little while after the Mothers death. And this fentiment I maintain with Franciscus Ranchinus; and that both by the Authority of the Learn'd in the Law, and Experience. Only care is to be had, that as foon as the Mother is dead, the Operation be with all possible fpeed performed; and 'twere to be willied, that this matter in our Countrey were not fo negligently skip'd over.

If the Fruit be dead, and the Mother 34 Ded co-Chirurgical ther yet alive, then the above-recited Reafons touching a dead Child or a dead Mother ought to prevail.

But the learned Varandaus is of opinion, that the Cafarean Section is not to be used when the Fruit is dead, and the Mother yet living, that the Chirurgion may not appear to have been the Cause of her death; but he would have this operation to be performed, when both Mother and Child are yet alive, and when 'tis impossible to bring the Child into the world but by this means; and then he thinks it better, to fave one of the two, than to let them both perish, Thus be.

Now what concerns the Delivery of the Child, therein is no difficulty, nor danger. But, as for the Mother, though the wound, given her, be great and dangerous, yet 'tis not neceffarily mortal, as we fhall hereafter fhew by many Examples. I conclude therefore with the famous Corn. Celfus, lub. 2. cap, 10. Sitius eft, anceps auxilium experiri, The

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The fame is also prescribed by Hippocrates in his Aphor. lib. 1. where he taith; Ad summos morbos summæ ad unguem curationes adhibitæ optime valent.

Wherefore this Cafarean Section, however dangerous, is ufeful, and its ufefulnefs proved by many Examples, and learnedly difcourfed of by Francifcus Rouffetus in French, translated into Latin by Caspar Baubinus. But forafmuch as that Impression is very old, and hard to be gotten, I think it not amifs here to fet down one of his chiefeft Observations, in the language, into which it hath been translated, that by my version it may not lose its lustre: It is the fecond Example, which he faw himfelf, and which is very remarkable, viz.

Cum quatriduum extremis & irritis conatibus partus divexata Bernhardina Arnolda fuisset, Stephani Massicault e Nangevillo pago qui inter Estampas, Puissethum & Pithuveras situs est, uxor, atq; in extremis constituta, implorato meo per mari-

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maritum auxilio, cum de Sectione consilium audisset, wel reclamante marito, animo confirmato hanc in se experiri avide cupit : Idg; ita subito post intellectum consilium meum, ut nollet Ambrosii Nigri adventum expectare, quem, tanquam in hac re exercitatum, missurum me eram pollicitus, cum ob gravissimum morbum, quo tum detinebar, mibi adesse non liceret : Sed opera Johannis Lucæ, juvenis tonsoris, usa, qui tum, ut etiam nunc, Bunonii in parvo pago vicino habitat, qui dextre Incisionem banc, sibi licet novam, An. 1556. die ipsius Paschatis in multorum prasentia peregit; cujus rei aliqui, imprimis vero ipse, testimonium perhibere pessunt. Incisio (exemplum boc præcepti loco habeatur.) à dextra abdominis parte, transverso digito infra umbilicum, & ultra quatuor digitos ad latus ipsius incipiebat; inde rectà ad pudenda ulg; progrediebatur, ablg; tamen re-Etorum Abdominis musculorum lasione; tribus enim digitis superne a recto

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recto musculo distabat, inferné vero paulo minus. Musculorum, ut & Peritonai factà incisione, absq; tamen magna hæmorrhagia, Uterus conspicuus se obtulit, quem etiam separatim incidit, facto satis magno vulnere, que fætui viventi, ut & secundinæ, facilis per vulnus piteret exitus. Postea, labia vulneris non Ga-Aroraphia, sed commune vulnerum sutura, quinq; punctis consuit, non quidem uterum, sed musculos & peritonæum; uti spsemet observari, dum ejus solum rei gratia, cum convaluissem, ipsim inviserem. Sed postbac sepius in ipsa id commode observavi, dum berniam percurare conarer, quam deinceps semper babuit, vel ob suturam minus recte adhibitam, vel quod minus diu in puerperio reman-Met; quadraginta enim solum diebus lecto se continuerat. Sesquianno autem post, priori marito defuncto, cum Petro Chanclan nupsisset, qui etiamnum superstes, rursus concepit, & feliciter naturali modo filiam. enixa est, quæ etiam secundas nup-N tras

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tias contraxit, & Nangevillæ habitat; quo loci plures adhuc hodierna die fide dignos hujus rei testes est reperire.

There are alfo two Chirurgions of our Town, who do atteft, that this *Cæfarean Operation* was performed in their time in *France*, of which both women did happily recover; as you may fee by their own atteftation here fubjoined.

Master Anthony Gloriand. I do hereby certify what I fare An. 1630. when I (erved Monsieur la Serre, fworn Master Chirurgion of the Town of Calais, that my Master was sent for to deliver the Wife of Monsteur Purot; but finding such a tumor between the part and the conduit of the matrix, that he could not make use of instruments, nor of Dis. hand, refolved, to fave the child and the mother, to use the Cafarean Incifion; which he did accordingly in the presence of Monsseur de Gout du Pin, Phylitian of the faid Town; in which operation the faid La Serre did fucceed

Dblerbatious. 39 Succeed very well; for both Mother and Child remained alive for some time.

To this I fhall add another Example, recited by Mr. John Girault, fworn and very famous Chirurgion at *Paris*, in the 74 ch. of his Annotations upon the French Chirurgery of Jacques Dalechamp, Doctor of Phyfick, and Professor at Lyons, concerning an happy Cure, by which both Mother and Child were preferved by the Cæsarean Cutt; viz.

The 12th, of May 1628. Madam Mary des Auxnaix, Wife of the Sieur Jacques Jouan, Sadler in the Town of Loudun in Poictou, was happily brought to bed of a Son, the third time, by the Cafarean Section, and that by the industry and dexterity of that very Expert Master Jacques, Master Chirurgion of the faid Town, and great Operator and Lithotomist, for this art was at that time very well known through all France. And, which is more, I have been credibly informed, that the faid Master Jacques N 2

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Jacques had since delivered the said Dame by the same Cæsarean operation four times, since that which I have mention'd; which makes seven in all; but that she died of the last.

> Your affectionate Collegue and Friend

Pierre Guenellon.

Having thus difcourfed, on what occafion the *Cæfarean Incifion is* practicable, ufual and neceffary, and proved the ufe thereof by divers commendable Examples, as alfo well confidered the reafon of the fame; it will be proper, further to examine, when there is a neceffity, not only after what manner this operation is to be performed, but alfo in what parts of the body; and laftly to confider, what danger or inconvenience may be expected therefrom.

It will then be neceffary first of all to examine the Anatomy of the Containing parts of the belly, and particularly that of the Womb. Of this may be confulted Adrianus Spigelius, and

and other Anatomists. See Fig. 2; in which,

AAAA, are the separated comon Integuments of the Abdomen.

MMM, The white Line.

O, The Navel.

BBBB, The Line called Semilunar by Spigelius, where about the tendons of the oblique Muscles of the abdomen take their beginning.

EE, The obliquely afcending muscle in its place, whose fibers run upwards.

DD, The spine of the Os ischium, The Common Integuments then, that must be cut thorough in this Operation, are the upper skin, the skin, the fat, the fleshy membrane, and the muscles of the belly: The innermost and last tegument of the Containing parts is the Peritonaum, investing all the Bowels of the lowermost venter.

Of the *Contained* parts of the Belly none is cut but the Womb, to fetch out the Fruit and Secondine.

That the *Containing* parts of the belly being wounded, although it N 3 thould

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fhould happen that a good part of the bowels did fhoot out, (they being unhurt,) may without any great danger be healed, is fo notorious, and fo well known by daily experience, that I think it fuperfluous to enlarge upon it; concluding with the words of Galen: Mediocré foramen angustiori falubrius effe, ut libere intrudantur intestina.

Nor need you apprehend any great hæmorrhagie in the cutting of these muscles, in regard that in the place, where the Incifion is made, there run few or no great veins or arteries. Nor need you be concerned, what will become of the extravafated blood; for it may be conveniently discharged by the opening of the Womb. Nor is there cause to fear any Convulsions, feeing that the opening is made in the midst of the right muscle, and not in its beginning or end; for in the middle of it there are none of the fmall nervous fibers. Nor need you be afraid of the largeness of the wound to be made in the Womb, becaufe upon

upon the Extraction of the Fruit she is immediately (according to her nature) drawn in again; whereupon the wound is foon healed, the circumjacent parts much contributing thereto : For the effusion of blood of the Womb is not more in this way of Delivery, than in the other that is natural: And in cafe it should happen to be too great, it may eafily be remedied by convenient and known means, both for stopping the flux of the blood, and for cleaning and heal. ing the faid wound; always taking great care that nothing remain behind that should be brought away. But that after the cure of these wounds, by the cutting of the Omafum there commonly follows an Hernia or Rupture, that cannot well be cured, is a thing that must be patiently endured, and eafed by fuch bands as are usual in that cafe ; confidering, that this is a fmall inconvenience in respect of so great and difficult an operation; without which neither the Mother nor the Child could N4

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could poffibly be faved alive. And we know, that in Cutting people of the Stone, the wounding of the Bladder is much more dangerous, troublefome and grievous; which faves but one body : whereas in our operation two are preferved, which elfe muft be infallibly loft.

Moreover, it fometimes happens, that this operation must be performed near the Navel, which is a more dangerous place than that where ufually the Sectio Cafarea is made. And in that cafe the Dead Fruit, and the putrified bones thereof have fometimes been extracted, and yet the Mother recover'd; witness Scephanus Marialdus of Bourdeaux in Jua Historia de Partu prodigioso, qui visus est in agro Bardiniano near Bourdeaux, An. 1595. which operation was performed by that very expert Chirurgion Jacobus Noierus.

The like happened alfo in my time, when I was learning the practife of the Art of Chirurgery that a pu-

a putrified Fruit was, by Nature's cooperation, extracted out of the right Gut.

Albucasis an Eminent Physitian and Chirurgion among the Arabians relates, c. 76. an odd cafe, which I cannot forbear to transcribe hither. I bave, faith he, seen a woman, in whole belly was a child, and the was then got with child again. And this second Fruit dyed likewise. After a considerable time she had swelling at ber navel, which rising more and more, at last burst, and yielded purulent matter. Being called to her. I was long employed in that cure; I laid at length a strong Drawing plaister over the place, whereby it was 6 open'd, that one day there came forth bone, and some days after, another. I was amaled, knowing there were no bones there : But well considering all, I found, that they were bones of a dead child. Having therefore learned the true Cause of the disease, and consequently the right way of the Cure thereof, I extracted many more bones

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bones from thence; whereupon the woman did pretty well recover, and lived a good while after; though out of the opening there run alwaies some matter.

Franciscus Rosetus recites three examples more of this nature, which Ambrosius Paræus hath taken notice of in his 24th Book of Generation.

Fabritius Hildanus relates a strange example of a Burgundian woman, about whose Navel there was cut out a putrified child, An. 1609 by Mr. John Marchandet, Chirurgion at Salines.

Alexander Benedictus, Chirurgion of Berne in Helvetia relates in his 25th Book, cb. 33. fuch an other remarkable cafe of a Venetian woman, which having been deliver'd of a perfect child, there remain'd another child in her Womb, which was dead; which coming to be putrified, was for the most part expelled the natural way; but at length Nature making three openings of her belly, there

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chere came forth out of the biggeft of the three the whole skull of the dead Fruit; and after that the other bones came forth from time to time. Whereupon the woman by admirable help of Nature recover'd.

A. 1663, the 10 th. of February, there was fent me from Brugges in Flanders, by an intimate and veracious friend, a Note concerning a very experienced Phyfitian called Dr. Sonnius, who had performed this Cafarean operation feven times upon his own Wife, with very good fuccefs, both Mother and children remaining alive.

Whence appears fufficiently both the practicableness and great usefulness of this Incision for faving of lives, notwithstanding the difficulty and danger which accompanies it : concerning which that faying of Hippocrates must take place; viz. Extremis morbis extrema & periculosa remedia sunt adhibenda.

Yet Ambrosius Paræus, a known Author, and Jacques Guillemeau, are of 43 Dedico-Chirurgical of opinion, that this difficult Operation ought not to be used, as you may perceive by their own words; because they twice miscarried therein, and besides, knew three other women, that alfo died under the same. Let this be so; the five children mean time were preferved, which was no small matter. But hear what he saith himself.

Some are of opinion, that such a Cafarean Section may and ought to be practifed (the woman being alive) in case of an highly difficult Travel : which I cannot advise to, having twice tried it in the presence of Monsteur Paré, and seen it practised by Messieurs Viart, Brunet, Carbonet, very expert Chirurgions, who left nothing undone that could be done by dextrous and methodical Masters: Iet notwithstanding, of five women upon which this Operation was made, not one escaped. I know, it may be said, that some have been saved that way. But suppose that to be so, the Opera=

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Operation is rather to be admired than imitated. One Swallow makes no Spring, nor one Experiment a Science.

The Preparatives requisite to this operation are, as follows : The Mother and the child being yet both alive, if I should be called to such an Operation, I should first of all confider all circumstances, to conclude, whether this Incision were necessary, and whether neither the woman nor her Fruit could escape death without it. and whether they had not endured too much by fome imprudent or un-skilful Midwives, nor the Mothers body too much hurt by their ill mamagement : For, if a woman should "hance to die after fuch an Operaion, then the Operator would be lamed, although their former indifretion and ignorance were the caufe inof her death. Having then well confidered and examined the ftrength of the woman, and prepar'd all neceffaries for the Operation, viz. an Emollient Clyster to discharge the bowels.

Medico=Chirurgical 50 bowels, and a good cordial to fortifie the Woman, (I mean a glass of good Wine;) as also having taken care that the make water for the emptying of her Bladder, and then having ready a very good Rafor, and another good cutting knife; a pen with Printers Ink to mark the line of the Incifion, (which line must first be dried up;) four or five needles with three-angled points, ftringed with washed red-scarlet filk, and three or four filver needles(fuch as are used in the cure of a Hares-mouth,) likewife ftringed with filk ; three foft fponges; feveral doubled compresses of foft napkin-cloth, and a napkin doubled up four fold, to be put round about the belly after the wound is done up; besides, two broad swathes, each 6 inches broad, to wind about the belly for stopping the blood, and above all, a strengthning and fanative remedy, wherewith the wound is first to be cleansed and washed, before it be stitched together : To which is to be added a proper Blood-ftanching

SI

ing remedy, wherein there is to be no vitriol nor any other corrofive ingredient, for that would hinder the coalition of the wound : laftly, a good wound-balfom to anoint and bind up the wound with.

The means which I would chufe to perform this cure with, as to the ftanching of blood, and cleanfing the wound, are the following : First for cleanfing;

B. Rad. Confol. major, Saffaperil. ana 38. Herb. Agrimoniæ, Altheæ, Artemisiæ, Rorismar. ana m. j. Flor. Meliloti, Lavendulæ, Rosarum rubrarum ana m. s. Sem. Anisi, Fænic. ana 3ij. Castorei Ji. Fiat omnium decostio in wvino rubro, usq; adtertiæ partis conumptionem.

Then, for Blood-stopping;

R. Farinæ Volatilis ziß. Boli armeni zß, Gypsi zij. Resinæ, Olibani ana ziß. Sang. Dracon. zi. Omnia subtilissimé pulverisentur & misceantur.

Laftly, for a Wound-balfom; R. Ol. Olivarum lib. &. Terebinth. Ziij.

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Ziij. Rad. consolidæ major. Tormen: til. an. Zij. Herb, Trifol. odorat. m. j. Flor. rorismar. Centaurii an. m. S. Hyperici m. j S. Croci Zj.Contundantur simul cum oleo, vitro includantur, S calore solis per 40. dies digerantur ; postea exprimatur liquor, S servetur in usum.

Those that cannot get this Woundbalsom made, may fafely use the oil of Hypericum, with the oil of Copiva, and equal parts.

All this Apparatus being at hand, I should then perform this Operation in the manner following;

First of all, having implored God Almighty's bleifing, I should defire the Patient to lie upon her back, near the edge of the bed, tor the more convenient accels to her, getting two strong persons to hold her and to keep her leggs close together, and laying a great pillow under her head; then I should pitch upon that fide of the belly, right or left, which I thought the foundest, taking care not to meddle with that fide which may be affected by fome di-

Dblerbatious. 53

distemper of the spleen or liver : Yet if there should be some rupture on ' one fide already, in that case Celfus and Paulus Ægineta do advise to make the opening in that place where fuch a rupture is, becaufe they would not have the Patient eudure fo much pain, as he needs must in the difficult healing up of two ruptures. This done; I should with Ink mark along the belly the line of the Incision, to the length of half a foot, which is the ordinary bigness of the wound requisite in this operation; and the traverse lines drawn over the streight line, serve only for this end, that in the fowing up no mistake may be committed, foralmuch as the crofs lines must exactly correspond with one another. See Fig. 3. where A, the Navel.

BB, the Direct Line of the Cafarean Incision, half a foot long. CCCC, the Transverse lines, drawn over the direct line.

But all these Circunstances need not when the Mother is dead, and O the 54 Dedico Chirurgical the child supposed to be yet a live. For, in this case, I only chuse that place which I judg to be most convenient and safe for delivering the child and the after-birth with most speed.

To proceed then; having pitch'd upon the place, between the Navel and the Os pubis, going two or three inches beneath and on the fide of the Navel, and as much from the lower part, to avoid rhe tendinousness of the Muscle, I should then make the Opening according to the length of the belly, first cutting the belly quite through with a rafor into the very fat, and making the wound fo big as is requifite, confidering both the condition of the child and the Mother; and then advancing further, and cutting through the Muscles of the belly, and the Peritonaum, underneath of which the Womb will prefently appear, which is then to be open'd in the middle with great caution, that fo the Fruit and the appendages thereof may not be wounded. The opening being thus made, the

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a

the child and the after-birth, with the Navel-string, is to be dextrously taken out; and in cafe the child should be perceived to be faint, the Afterbirth is to be fprinkled with warm wine, and to be laid thus warm upon the child's belly to renew its ftrength. Yet, in cafe both Mother and child be alive, I should let alone the feparation of the child till the Mother were dreffed, or have a Midwife ready at hand, to take care of the child. Then immediately washing the Womb, both to ftop the bleeding, and to cleanse the fame with my aboveprescribed lavement; I should instantly proceed to stitch up the wound, not after the manner of the Gastroraphia, in which you take up by turns as well the fubjacent peritonaum as the upper skin, but after the way of flitching up an Hare-mouth; and this I should endeavour to heal up per primam intentionem Chirurgia, which is performed by that way of stitching, and the wound Oyl. But I should alwaies with a tent keep open 0 2

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a little place in the lower part of the wound, until the great danger and the ufual Symptoms were paft; and for the reft, employ fuch healing means, as are ufual in other fresh wounds of the belly.

But as to the Womb, which is not to be flitch'd together, the healing thereof is to be further'd by convenient fyringing, fuch as may not at first hinder the Lochia : But as to pessaries, they, in my opinion, can do no good in this cafe; becaufe they cannot convey the healing remedies fo deep as is the place of the Womb (which fyringes can do,) forafmuch as the opening of the Uterus is made in its upper part. If the peffaries be wrapp'd about with fine linnen rags, or with thin fheeps-gutts , they are the worfe for that, to give any help; if they be not, they prefently melt, and hinder also the paffage for the purification : Whereas by fyringing, the pain is mitigated, and inflammation prevented : Befides, that by the use of Syringes, the Womb

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57 is as 'twere bathed, warmed and ftrengthen'd ; and by it also the fuperfluous Sordes are expelled.

Concerning the Diet of the Patient, that should be of light and nourishing meat, I mean, good broath of chicken, pullets, or mutton, foft yolks of Eggs, and the like; in fhort, fuch as is usual in great ulcerations and wounds of the lower belly : Taking alwaies great care, that the benot too coftive; in which cafe the must be relieved by some emollient Clyster,

From this way of proceeding, Henor'd Friend, you may judg of those fad examples, which are daily before our eyes, of those child-bearing women, which not only themselves alone, but together with their Innocent Fruit, are miferably destroyed, Which affirmation of mine is confirmed by that famous Chirurgion, Guilielmus Fabritius Hildanus, in a place where he mentions what the Royal Law imports, faying : The Royal Law forbids to bury a woman that is deceased with a big belly, before the Fruit

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Fruit be cut out. And the learn'd in the Law call this the Royal Law, not only by way of excellency, but alfo becaufe'tis esteem'd, that the se: cond King of the Romans, Numa Pompilius, enacted it. Certainly, if this Law were observ'd every where, many children, which now by the death of their Mothers are miserably sufficiated and lost, might be saved, to the great comfort of their Fathers. 'Tis not in vain, that the Author of this Law adds : Those that do otherwise, seem to have killed the bope of life with the Fruit.

But then, though this Royal Law commands to open all big-bellied women, without any diffinction, as foon as they are deceafed; yet a Chirurgion is not fo firictly tied to it, as to obey it in all of them; becaufe there may be manifeft and palpable caufes to let it a lone. First, when he is fure that the child is dead, and that there is but one child. 2. That the Fruit is putrified and diffolved. 3. That there hath gone before a great flux of

of blood, together with the breaking of the waters, and that the Womb is discharged, and keeps only the Fruit . being without any motion; or when the Fruit is but very little, and come to no maturity. Which last was a cafe that I my felf lately met with, having been called to a French woman dwelling upon the Keysers-gracht in Amsterdam, to perform this operation. For, this woman had so extremely flooded both of blood and water, that she had voided (as she her self assured me) near a pail-full. Finding her pulse very low and faint, and the flux continuing, though not fo violent, I bid the Midwife to keep her hand continually upon the Patient's belly, and to be very attentive, whether she could perceive the least motion. But neither before the Mothers death, nor at her death, was there any motion; and being deceased, I found the Fruit fo little, and without all motion, that I affirmed it was dead, and very imperfect,

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perfect, and therefore needless to, trouble our felves with this operation.

These, Sir, are the Observations and Practifes of the Sectio Casarea, which I presume to present unto you; begging your pardon for my prolixity, and submitting all to your censure and correction. Given in Amsterdam the 10th of September 1662.

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Defervations. The Second Historical Observation OF THE PROCIDENTIA VAGINÆ UTERI, Or The Falling Down of the WOMB: Together with a Case of its EXTIRPATION.

A D D R E S S E D In a Letter to the Learned PAULUS BARBETTE, Doctor of Physick, and Practicioner in Amsterdam.

Sir,

Purposing to give you a visit by a Letter, I could not forbear to communicate to you fome cases which I thought worth observing; viz.

An. 1658. the 24th of December, I was fent for, to come to the house of one Thomas Carstens, Souldier under Captain Russ, living upon the Princen-gracht, over against the North Church, in the Prince's Hosgangb; where I was to view the said Soul-

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Souldiers wife, call'd Mary Jacobs, who had been troubled for four years with a Falling down of the Vagina uteri, which a certain Midwife had dreffed for two whole years as if the Womb it felf had been fallen out, endeavouring to cure it by replacing the fame by a ring of cork, one inch thick, and three inches broad round about, having a hole in the midst, of the bigness that a finger might go through : This ring being dipped in melted yellow wax, and by the Midwife applied about the part, was there kept a great while, till she found that she was not cured. Whereupon the Patient employed another Midwife, who undertook to reduce the fallen womb into its place by a Ball of white wax; but this proved more fuccefless than the former, the part hanging out to the bignefs of a pint glafs, of that fort which we call Romers. Nor can I think the putting fuch a ball as this into the body, fo good as the ring before fpoken of; for by means of the hole 111

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in the Ring, the Patient could have her Lochia pais, which were quite obstructed by the Ball.

The like Example I have met with in a Woman living upon the Herengracht, whofe Womb, as fhe thought, had alfo been replacing by fuch Waxballs; but this prov'd alfo unhappy. For I was at laft fent for, to deliver her of her mifery, which I alfo did, though with no fmall trouble. For this piece was as big as a mans fift, and having obftructed her lochia, caufed great pain, a fever, ftench and putrefaction; though, by God's bleffing, fhe was delivered of this child of Wax.

The like troublefome Symptoms befel the former woman, viz. great pains in her loins, inguen, and body, infomuch, that fhe could not lie on either of her fides, nor upon her back; neither could fhe fit up but with almost intolerable pain for feventeen weeks together, until her body burft open, rendring a ftore of fetid matter, and forcing out the Wax-ball, blacken'd

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blacken'd with the ugly flinking matter, together with the vagina uteri, (which they took for the uterus it) felf) being much contused and hurr, fome places thereof being alfo eaten out by the faid matter, there appearing two bruifed places where the ball had preffed; which yet were happily cured by the Midwife.

Some time after, another woman undertook to cure her with another Ring made of Cork, and dipt in melted wax, as had been employed by the first Midwife. Which Ring being applied again, the Pavient had cafe and reft for five or fix months; until at last by some strong motion or other, the vagina came to fall down again in fuch a manner, that it began to mortify and gangrene. The Doctrefs being fent for, and feeing how the cafe stood, laboured to pull to her the Ring, which was fast wedged in; but not being able to effect it, the made bold with her finger to pull it out piece-meal: Whereupon the part falling down, she laid a pap upon it, by which

which it fell out more than ever before, and beginning to be inflamed and to gangrene below, she did her best to put it up again by linnen-rags warm'd in Brandy, which fhe continued to do for three days together. But the woman finding this remedy altogether useles, bid the Husband of the Patient to go to the old mans Hospital, and thence to fetch some of those mens strongest Urine, and to boyl it up with Rofemary, and therewith to bath her body. Which was done ; but the Midwife never appear'd again; and the propendent part changed more and more its coulour, fo that now they were neceffitated to look about for other help ; which was, that they fent for two other Midwives, who being come, did their utmost to put the part again into its place; but when they had beflirr'd themselves fruitlesly for the space of three hours, at last they sent for me; who being come, found the woman in the condition above-defcribed ;whereupon I prefently advised, that the next and

66 Dedico-Chirurgical and best way of faving this woman, was to fever this prominent part, vulgarly supposed to be the Womb. This was the fame day put in execution, when I put this woman upon a Table, for the more convenient operation, in the presence of the learned and expert Arnoldus Tholinx; and Job van Meeckeren; and went thus to work : First of all I drew the propendent part to me as conveniently as I could, that fo I might be the better able to lay a linnen tape about the part, and to draw it close together, for fear of flooding that might enfue: Which done, the Extirpation follow'd, with little effufion of blood; whereupon I dreffed the body according to Art, and cleanfed it with due remedies, fuch as refift putrefaction and ftench : For example;

Rad. Altheæ Brioniæ, ana 36. Fol. Artemis. Absynth. Rutæ,

Lauri.

Lauri ana m.s. Flor Rofar. rubrar.

Lavend, ana Jiij. Coquantur s. a. in vino Rhenano, S colentur. Adde.

> Ung. de apio zjß. Melchelidoniæ zj. Misce, fiat unctio.

By which means this woman was at length happily cured, having after that, for fome time, her natural lochia : And fhe did live ftill in good health, at the time of my writing this Obfervation, viz. the 28th. of August, 1662.

Sir, that this was a finking and falling down of the innermost rugous tunique of the vagina uteri, is evident from these reasons;

First, because the Midwives, having handled this part much, and a long time, found it always to be in colour and smoothness like to the neck of the *uterus*, and not to the body of it.

Secondly, becaufe it could be fo eafily restrain'd and kept in by a fingle

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gle Ring, as we defcribed above, which the Womb it felf would have thruft out in fuch a length of time. Befides other reafons, to be met with hereafter.

The Caufes of this finking are internal and external. The Internal are, the grievous throws of the matrix; as when in time of travel the child is well turn'd, but the childs Head is bigger than ordinary, it comes to pass in such a violent labour, that the vagina uteri is fo press'd, and urged, that the ruge within are turn'd and firetcht over one another, and remov'd from the place to which they were grown. For, this I have much wondred at, almost in all deliveries where I have been prefent, that the rugæ uteri are so great a help to the uterus, in bringing the child into the world, and, which is more, that the Womb can exercife so great a force by means of the fame. For these rugæ being in a natural or ordinary delivery, well moistened with a lubricous water, do by their inbred force great-

greatly promote and further the iffue of the fruit : As you fee in Silkworms, by example, who in their progreflive motion first of all do fix their feet, but then by their rugofities and incifures advance, and are, as 'twere, propelled, just as one wave drives forward another.

Now when this happens in an unhealthy body, then ftore of flimy, waterifh, or other fuch like humors come to flow into it, whereby it finks more and more, and at length is fo enlarged and expanded, that by reafon of its bignefs it comes to be prominent out of the body.

As to *external* causes, it may be occasioned by the inconfiderate gripe of a Midwife, who, in stead of drawing to her the child or the after-birth, comes to lay hold on these *rugæ*, and to draw them to her, thereby caufing the *vagina* to receed from its fubjacents parts, and to fink down,

Concerning the caufes that are rendred by other Authors, I can hardly affent to them; fuch as are hard labour,

ftrong

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strong ou cry, vehement cough, the breaking and separation of the teguments of the Womb, a vain endeavor to go to ftool, falls and blows and knocks upon the belly, violent riding on horfe-back, fneefing, danfing, leaping with spread-out legs, holding in ones breath, taking great cold. All which caufes are not fatisfactory to me to make me believe the procidence of the Womb, when I confider the strong union of the fame with other parts ; though I deny nor, that fuch violent motions are very hurtful to those that are troubled with this accident.

Of this extirpation of the womb, divers confiderable Authors have written; and, which is more, divers women have lived a long time in good health without a Womb, if you will give credit to Paulus Ægineta, Foreftus, Zacutus; who alfo affirm to have feen, that a prominent putrified womb was cut off. See hereof Carpus, Mercurialis, Lazarus Riverius, Johannes Langius, Paræus, Baukinus, and others. And

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And if you pleafe to look upon the third Book of Felix Platerus, de uteri procidentia, corruptione Gablatione; you will there find a ftrange relation of a woman, whofe whole uterus hung out; which when it was altogether black, putrified and ftinking, there was fent for an old experienced Chirurgion, who when he came to touch with his hand the prominent womb, it inftantly like glue ftuck faft to it, without ufing any other fence to draw it to him.

But narrowly examining the matter, I cannot believe, that the womb it felf can ever come to be prominent, as vulgar Authors tells us, that in fevering the child from the after-birth the Womb hath fallen down with it. I am rather perfwaded, that fuch Writers have open'd very few women that have died in travel. For, if ever they had taken good notice of the bignefs and thicknefs of the Womb, they would never have written as they have done. I, who have frequently met with this cafe, fhall P 2 relate

Medico-Chirurgical 72 relate to you one of them at present, which hapen'd two years fince, of a woman, that not an hour after her delivery had her vagina uteri shot out to the bignefs of a childs head; which in the presence of two Midwives I reftored to its place. If this had been the womb it felf. I could never have fo eafily reduced it : For, the Womb in fuch a Young child-bearing women, as this was, muit be an inch and a half thick, feing that 'tis ordinarily in a healthy woman with child two inches thick, according to the condition of the Fruit; for, the bigger the fatus is, and the longer the Mother hath gone with it, the thicker groweth the womb; which is obfervable. Whence we may eafily collect, that fuch parts which in length of time have increafed in thickness, cannot fo fuddenly come to be leffen'd.

The other fign I took notice of on this occafion, was, that the womb must have been inverted before it could come out of the body; and if

if fo, I must have found it bloody, uneven, thick and spongious : But I found it contrary, viz. very smooth and even. And her *lochia* ceased almost quite, so that I was very well able to judg of this matter, as I have also been of all others, that ever I faw.

Now, as we have formerly thew'd, that 'tis a lazy nature to rely upon old things alone; fo'tis a rash one, to give credit to groundless and ridiculous novelties. For example; That the Mother (as they call it) gets into the throat of married women and Maids, is by thousands believed to be a truth; yea, that the string of the Mother is fast in the throat, and, that the vein of the Mother is alfo feated there, which fancy is craftily managed by a certain woman in this Town, who thereby miferably deceives many innocent women, and marvelloufly enriches her felf.

Yea the Mother can alfo (fay they) in fome women be translated into other parts of the body. P 2 Of

74 Dedico=Chirurgical Of which I cannot but relate here a pleafant story, of a woman that not long fince was troubled with a hardness in the left fide of her belly ; who by a fudden cough falling a vomiting, was made to believe, that fhe had vomited up her Mother or Womb, which being put upon a Table, was in roundness as big as an ordinary woodden Table-trencher, with a mouth in it, as they would have it; which yet did not ftir but when they threw a little fugar into it; and then it gaped, they faid. This might be believed, if that other were true, which is faid and recorded, viz. that a woman may conceive and form a fætus without the womb, to wit, in her stomach, and in other parts of her body. Of which we read fome examples in divers Authors; one of which is to be found in the Anatomia reformata of Thomas Bartholin. l. 1. de infimo ventre. where he saith; Extra uterum factam conceptionein & fatus formationem, exempla nonnulla testantur. In ventriculo ju-9120725

nioris uxoris cujusdam sutoris nefandi, conceptum fætum, Sper os exclusum, digiti longitudine, sed bene omnibus membris externis S internis conformatum, descripsit ex literis Romeleri ad Gothofredum Hofmannum Salmuth, nec de side bistoriæ ipsius dubitat.

I find alfo many fimple Midwives who on the ninth day after a womans delivery enjoyn her very ftrictly to lie ftill on her left fide; by which means they pretend, that the Mother or womb comes to return to her right place. To refute which filly fancies, it will be fufficient to confider the ftrong union of the Womb with the other parts of the body; whereby it appears, both that 'tis impofible, the Womb fhould fhoot out, and that the Mother fhould rife into the throat, or be the fubject of an extirpation.

We do not think it convenient now, to write of the riling of the Mother, hoping we shall have a better opportunity to discourse thereof.

P 4

76 Dedico-Chirurgical I shall only fay at prefent, that I am of opinion, that the womb cannot change place, no not fo far as to get to the stomach, or the dyaphragme, except in those that are hydropical, or have a mola carnea, or that are big with child, in whom the ftomach by the great fwelling is little by little preffed; whereby frequent reachings to vomit, and actual vomitions, and other indifpositions and illness are occafioned. For, if the ligaments and veins of the Womb should come to be fo much relaxed by the fuperfluous moifty humors, as to be thereby inverted, and fo to floot out of the body; it were then also very credible, that these ligaments could be as well ftretched out in the rifing of the Mother, as in its finking down : Which is not to be believed. But it may very well come to pass, that the womb being charged with foul blood and stale feed, from whence arife foul and ill-condition'd damps, these damps do swell the bowels, and occasion some rising, whereby

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whereby the Patient can breath either not at all, or with great difficulty; which maketh women think from the fwelling of the mufcles of the throat, that they are in danger of fuffocation. Where you may take notice, that Maids and Widows are most troubled therewith, and married Women least; a good Husband being the best remedy for this diffemper; as is intimated by John van Beverwyck in his third Book, ch. 6.

If it were poffible that the Mother could fhoot out, it would indeed be a very difficult and dangerous work to feparate it; for fhe is by its broad and round ligaments very firmly united to the bones, fo that they could not be fever'd from them but with very great pain; befides, that fhe is fo faftned to the Bladder and the *inteftinum rectum*, that they cannot but with great danger and mifchief be feparated. Hence that old faying;

Quid ergo superbimus, qui inter stercus & urinam nascimur. The

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The Vasa præparantia and seminaria are inferted in the womb and the vulva fo, that they cannot but with great pain, and much effusion of blood be difunited : Whereas I find in my practice, that in as many as I have met with, that prominent part, mistaken for the Mother, may be replaced with ease, and therefore am perfwaded, it is nothing elfe but a procidence or relaxation of the Vagina. For Women that are troubled therewith, are fometimes with child, as I have found it divers times, infomuch that in delivering fome Women, I have been often warned to be very cautious, by reafon forfooth, that the Mother was prominent; the meaning hereof being, that the Midwife would be as able to deliver fuch a woman as I, were it not that the Mother did hang out of her body. But would not this be an admirable delivery of a child, where the Womb should be prominent out of the belly ?

I know alfo feveral Women, in whom, when they were the fecond time

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time with child, this infirmity did first discover it felf in them at the time of child-bearing.

And this relaxation of the vagina is fometimes fo great, that it terrifies. But I make no difficulty to get it taken away by the hand of a dextrous Chirurgion. And the greater it is, the longer and flenderer the neck is, and confequently the feparation thereof the more eafy, without any great effusion of blood. And as the finking down of the vagina is fometimes fo great, that it comes to hang out of the body; fo it happens now and then in others, that it fubfides no further than to the valva, and in fome not fo far.

The Cure of this Infirmity is not fo difficult to a good Artift, but it may by a dextrous and difcreet hand be perform'd without confiderable danger; and it chiefly confifts in thefe two things; firft, in replacing the part; and fecondly, in preventing its falling out again. How difficult foever the cafe be, it is fometimes cured with

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with lying still, especially in young and healthy women, in whom the part is not prominent, who have not been long troubled with this infirmity. In which case I cure them with this astringent and corroborating fomentation, viz.

Re Rad. confol. majoris, Rubiæ tinctorum, ana zij.

Iridis, 3j.

Herb. Matricariæ, Salviæ, Pulegii, ana m. j.

Fol. Querci m. ß.

Glandium 3jß.

Flor. Rofarum rubrarum, Balaustiæ, ana m. E.

Sem. Cumini, Aluminis crudi ana 3ij.

Contundantur, S coquantur in vino rubro ad lib. iij. Colatura detur usui administrato fotu, applicetur Emplastrum.

The body being, after this bathing, kept truffed up, I lay over the whole belly this following plaifter done upon dreffed leather; viz.

Ligni

R. Rad. Bistort & Ziij.

Ligni Aloes, Berberis, Santali, citri antheræ, Cinnamomi ana 3ij. Flor. Camomæli 3is.

Thuris, Masticis, Castorei, Gallia, Moschata, ana 3j.

Ladani lib. j.

Picis navalis, Resinæ pini, ana 3ij.

Olei Mastichini Castorei ana lib. s.

Misce, fiat emplastrum secundum artem; uteri imbecillitati succurrit, procidentiam reprimit, fluxusq; immoderatos sistit.

But in ancient, women, if they have been long troubled with it, 'tis incurable. However it may be rendred tolerable in them, by fupporting it with a wax-ball, of the bignefs of a Duck-egg, or bigger, dip't twice or thrice in the melted emplastrum ad rupturas, prefcribed by *Fernelius*; in which ball must be pierced a hole, to difcharge the *Menstrua*; through which also must be thrust a copperwire, with a string fasten'd to it, thereby to draw it the more conveniently out of the body again. All

Dedico=Chirurgical 82 All which, Sir, I fubmit to your learned judgment, expecting your thoughts hereupon. Dat. Amsterdam the 8th of August 1662. THE

Dblerbations. 83 The Third Historical Observation

Concerning The CLAUSURAUTERI, Or The WOMBSHUT-UP. Together with

The Signes and Caufes thereof; as alfo the Manner of Opening and Curing the fame.

WRITTEN

To the Experienced Ruardus Rogierse Beerenart, Chirurgion in St. Anna-Land.

Worthy Brother,

H Aving wished you from my heart a most happy new year, I thought it not a miss, for the improvement of our Art of Chirurgery, to impart unto you an Historical Observation of a *Closed Womb*. The bebeginning of this year puts me in mind of that excellent Aphorism of *Hippocrates*, faying, *Vita brevis*, Ars longa,

84 Medico-Chirurgical longa, Occasio præceps, Experientia fallax, Iudicium difficile.

For, what knowledg I have of this cafe by fearch and experience, and by the reading and examining those Authors that have written of the fame. gives me no fufficient information concerning all the particulars I have noted therein. Some treating of the Womb, use only the general name of the womb, without making any distinction of its parts. Others divide it into three parts, the Bottom, the Mouth, and the Neck. Others into two parts only, the Bottom and the Neck. Whereby fome mistakes have been occafioned; fome writing of a closed womb, by which they understand a coalition of the carunculæ myrtiformes, which by a membrane in the first formation are grown together, fometimes having commerce with the clitoris; as may be feen in Observ. 16. of Fabritius Hildanus his third part : Where he defcribes the opening of the clofed Womb, using the name of Womb, whereas it was

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disrumperetur, aut disrumpi non posset. Who is it, that can hence understand Aristotle's meaning, whether he means the true mouth of the Womb, or of the vulva? and, whether he speaks de bymene imperforato, or of a coalition of the vagina? For he speaks of it very ambiguously, when he faith, Animalia uteros S vulvas intus omnia habent.

For thefe and other reafons, Sir, I could not omit to addrefs unto you what hath occurred to me by diligent obfervation, for the benefit of Chirurgery : Which, to underftand the better, as alfo, what infirmities are particularly applicable to each part of the Womb, and what are their Caufes, Signs, and Prognofticks, and how the cure of each part ought to be performed ; I divide the whole Womb into Four parts;

- The First, is the external part, called the Uulva.

The Second, the Vagina, extending it felf from the Uulva to the inner Orifice of the Womb.

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The *Third*, the inner Orifice of the Womb, beginning from the end of the *vagina*, and being that fpace between the *Vagina* and the Womb, by fome called the *Neck*.

The Fourth, the Womb it felf, which is the Soil of mankind.

He that hath a mind to be more particularly informed of these parts, may receive satisfaction by reading the Learned Severus Pinæus de Virginitatis notis, Graviditate, S Partu.

Of the First Part.

Now that Infirmity, which is called the *Clofed Vulva*, hindring the accefs to the *Vagina*, is nothing elfe but a Membranous Coalition of the four carneous monticuli, whereby the foreparts of the vulva are flut up; fometimes very clofe, fometimes having commerce with the *clitoris*, and then impeding the difcharge of urine: In which cafe I would warn all Midwives, to fearch and view carefully the parts of any new-born Q_2 child

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child, to fee whether they be as they should be. Which may cafily be done by well washing and cleansing the child; and when thereupon they find any thing amiss, or any part closed, that should be open, to give notice of it to the Father or the next Relations, that so an intelligent Artist may be sent for to cure the defect.

This defect is caufed fometimes by the fuper-abundance of feed or food, fometimes by fome accident, whereby parts have been thrust together in the womb.

Concerning the Signs, it may eafily be perceived by the Eye or Touch, as alfo by the childs making no water. And this is to be well heeded, that fo the child may be helped by times. Of this cafe I have met with many examples in my practice, which have been happily cured by the fole dexterity of the hand: Of which I fhall only alledg one Obfervation, in which the manner of this cure will appear.

An. 1659. the 27th of September, I was fent for to a certain place, to fee a child of a year old, that could not well

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well make water, (though now and then it did;) for it never came away but drop-wife. Here I found the vulva overgrown with a tough film, comprehending the clitoris, and thus obstructing the natural passage of the Urine; being alfo united to the four carneous monticuli, without any opening left, but a very small one in the lowest part of the vulva, into which I could not but with difficulty get in my stilet. The Urine hit against the film, and then being beaten back, it run into the vagina, and there stayed, till by the latelymentioned small opening it came to leak or drop out. The Parents being inform'd, that the child was born with this defect, and this not to be removed but by art, as also that it could be done no otherwife but with sciffers, or a curve lancet, there being no other more convenient means for its cure; and it being alfo reprefented to them, that they were not only to confider the present inconvenience of the child in being hindred from making Q_{3}

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making water, but alfo that which was to come, the child being grown to years of maturity : They feeing the great neceffity of the cure, did agree it fhould be undertaken immediately; whereupon the learned Arnoldus Tholinx was called to be prefent at the operation, which was performed in manner following :

The child was put in the lap of a servant, who held its legs afunder upwards, (for the cafe was fuch, that it needed to be opened from beneath upwards, thereby the more fecurely to free the passage from the membranous concretion;) and after the partition was made with a pair of fciffers, I dreffed as well the upper as the lower edg of the wound with thick flat tents (that they might not eafily fall out,) anointed with a cooling and skin-making ointment; in stead of which, other Chirurgions, may make use of the unguentum diapompholygos, desiccativum rubrum, or the like. Here is always care to be had, that in the separation the open-

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opening be not made too fmall; to the end that afterwards there arife no new difficulties in a womans delivery. Great caution is alfo to be used, not to hurt any part of the Bladder. Laftly, care is to be taken; that what hath been once parted, may not grow together again.

ond Of the Second Part.

The Second part of the Womb, the Vagina, which begins from the parts of the vulva, and reaches to the inner orifice of the uterus; which part we also frequently meet with closed up, and over-grown with a tough membrane, yea fometimes in the very midst of it grown together (after a hard delivery) by an ulceration; fometimes alfo thus closed, as to have a hole left in the middle for the difcharge of the menses, as also for the admission of feed : As we shall have occasion to prove by the Example of a Woman that was ingravidated, after she had been hurt in a former 04 de, 93 Dedico-Chirurgical delivery by the bones of the childs head, thrust one over the other by a too violent compression.

Concerning the first clofure in this part, I am perfwaded, that fome Anatomists have taken it for the bymen: About which have rifen feveral disputes between some famous Anatomists, and particularly between Eustachius and Columbus; some affirming to have feen it, others denying it, as Andreas Laurentius; some maintaining it to be a membranous skin; others, carneous; othere, nervous; some, cribrous; which others deny : Some effectm it to be natural, yet in some bodies much thicker, harder and tougher than in others : Others, on the contrary, holding it, when found any where, to be unnatural ; to which last opinion I give my fuffrage, fince I could never find it, though I have very attentively looked after it.

However, those that have this defect, are by the Latins call'd imperforate, or velate. This hinders, first

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first of all, the discharge of the Men-Strua: Secondly, Conception, and if it be not such, as to hinder that, it lets at least the delivery of the child, as I have observed in one of my former Observations, where I speak of the causes, which require the Cæsarean Section.

The caufe hereof is double, natural, or accidental. The natural is, first, when a body is born with it, and is closed up before with a membranous skin; which may eafily be removed by a skilful Artift. Secondly, when by a difficult and dangerous delivery (which happens most in young women deliver'd of their first child) the vulva is hurt; or when the child, though well turned, is deads in which cafe, when in fuch tender bodies no confiderable throws do follow, and fo the child remains for fome days flicking in the birth, the wrinkles of the sheath are by that violent pressure inflamed, and unskinned, and being by the sharp corners of the skul-bones shov'd over one ano-

Bedico Chirurgical 95 another, forely wounded : In which cafe, if the Midwife do not well look to that particular, but only take care of cleanfing, it will come to país, that these parts will be inflamed, mortified, and ulcerated : Which hurt being by the benefit of nature cleansed, the parts are made capable to be glued and closed together by their flimy dewand moift warmth; whereby then this paffage is perfectly flut up. It may also be caufed by a wound given by fome instrument; as also by some carneous excrescence, as happens in the Lues venerea, fometimes also there grow hard tumours in that paffage, which they call Condylomata; and these do obstruct the iffue of the child.

Those then, who in the midst of this closure have a little aperture, do not want the flux of their menstrua; and they may also be got with child, though they cannot be deliver'd of a child but by the Casarean incision. Of these Celsus writes, lib. 7. cap. 28. And Avicenna Saith, Quibus

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bus os uteri conclusum est, aut non concipiunt, aut in partu moriuntur; guando scil. in eadem membrana est foramen perpusillum, per quod uterus semen trabit, sed infans egredi non potest.

The Signs, by which it may be made known, whether they be imperforatæ in this part, are, First, when they complain of grievous pains in the lower belly, and in the loins, on that fide where the broad Ligaments of the womb are connected with the os ileum. Secondly, when they have a pale unhealthy colour, and at the time of the new Moon are apt to vomit phlegm mixt with blood, and want their menses. There are fome who come first to know this at the time of their marriage, by the inconvenience they find in the conjugal embraces. But it may alfo be known, if there be cause to fufpect it, by an expert Chirurgion, or a knowing Midwife, as also the manner of proceeding in it.

The Diversity of it, and the Cure, shall 96 ADedico Chirurgical fhall be here treated of in three Obfervations; to which we fhall only premife this Note, viz. That the more this defect is outwards, the more conveniently can it be cured; and, if it be from Nature, it will admit of an eafier cure, than if by an Accident.

OBSERV. I. Of a closed Vagina, caused by Nature.

A N. 1660, I was fent for by a young woman of 20 years of age, who, with the knowledg and confent of her Mother, had promifed marriage to a young man, who feem'd to have an intention to recede from the contract. Whereupon the Mother of the young woman expofulated with him, and faid; Now you have defloured my daughter, you, like a difhoneft man, intend to defert her. The Midwife, to know whether the young man had reafon or not, in that he

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he pretended to the Mother, her daughter was not as she should be, asked our advice herein. We having declared, that the matter must be examined, and the Mother and Daughter have fubmitted to our advice, gave, upon due fearch made, this anfwer, That this young woman could never be a wife, quod effet imperforata, unless the would yield to be opened by Art. Whereupon the Mother concluded, it was best to let the young man remain unmolefted until she had reason to prefs him further. Now the cafe was found to be this; The whole sheath was perfectly closed before with a very tough and thick membrane, which could not possibly be removed but by Art. Some days after, I was fent for, together with the famous Doctor, Paulus Barbette; and we were told by the Mother, that she would give way her daughter should be helped by fuch means as we should judg best; Which also was put in effect the very next day in manner following. Forafmuch as the young woman shewed her self resolute for enduring this

Pedico-Chirurgical 99 this operation, I let her remain in her bed, her head lying low, and both her knees on high; putting a couple of cushions under her loins, thereby fomewhat to raife her body, that fo we might the more conveniently put fome thing under it. Then with our hands holding the parts afunder, I conveyed, as dextroufly as I could, my crooked incifion-knife to the upper end of the membrane, cutting it through downwards, to wit, towards the intestinum rectum, going in a direct line from the upper to the lower part; because, if I had gone the contrary way, from below upwards, there had been danger of hurting the bladder. This opening was no fooner made, but there isfued forth store of a dark bloody matter, to the quantity of near 30 ounces; which we judged to be a foul collection of her menstrua; admiring, how these gathered sordes could there lurk fo long without inflammation, pain, fever, or the like accident. I guels, that there were made

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made additions from month to month, by little and little, because such a quantity could not be collected in a month or two. And 'twas alfo wonderful, that there was fo little ftench; and that the perfon was in good health. The discharge continued fome days after the opening, but not in fo great quantity : After the opening made, I conveyed a peffary into it, made of a dryed spunge, moistned cum oleo mucaginum and mastichini. The place being now widned by the fpunge, I introduced the next day into it a convenient peffary of yellow wax, moiftned with oil, putting a thick compreffe together with a band before her body; not to be undone but for making of water, and for cleanfing the vagina by convenient fyringation. Which was continued until her perfect recovery, attained in a fortnight.

In fuch a cafe, there may also be used a hollow pipe of filver or lead : But no Artist is strictly bound to this or that, but is to use things according as he fees occasion. OB-

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OBSERV. II.

Of a closed Vagina, caused by a Gangrene.

IN the year 1659, being sent for by a Midwife, to come to a certain young woman who was inclined to marry, there being a good opportunity prefented to her; but had been deluded by the Midwife whom she employed to cure her : I went to her, and understood, that all their bathings, anointings, Gc. had been to no purpose; that she had been with child once before, and to hide her felf from her acquaintance, had retired her felf into that part of our Country, which is called Waterland, and flay'd there till fhe was deliver'd ; in which delivery she had for the space of five days endured very hard labour, wherein the child, though well turn'd, died, and the fheath of her Womb was forely wounded. This foreness of the Vagina came from the continual pressing on the ruge uteri, which there

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thereby were mortified and gangren'd; and at last, the woman having had by the benefit of nature her lochia; the remaining ulcerations in healing up grew together, and fo caufed a pertect clofure ; whereupon being become imperforata, she never had her menses any more. Which was the cause that she demanded my help, which I readily afforded her after this manner : I first put her in a due posture ; and then having by my ordinary speculum vaginæ dilated her body, I did with a crooked Lancet, tied fast to my fore-finger, open it from the upper part downwards, forth-with inferting into it a pessary, to hinder the parts sever'd from going together again; and I had care (as is always necessary) at least fo much to widen the fheath, that the woman being in travel might have a convenient passage for her child. But behold ! this woman some time after being unwilling to use the peffary any longer, and confident of her being R

Dedico=Chirurgical 102 being well again, contrary to our advice, marrieth her felt, and ten months after her marriage falling into labour of a well-turn'd child, could not poffibly be delivered, because she had fuffer'd the former feparation, which I had made, to joyn too foon by the unfeasonable removing of the peffary. Which confirained me to widen in again in this labour before the could be deliver'd : But by the fever which furven'd, as also her pain, and other Accidents, which the had endur'd by her long labour, her ftrength was weaken'd to that degree, that the was not able to refift the power of her Evil, but died a few days after. She was much to blame, that being in travel she fent for me no sooner; which, if it had been done, fhe might in all humane appearance been deliver'd of a living child : But those that were about her, not knowing her condition, managed her as a woman that had never been in travel before. On which occafion I shall warn all those that fall into fuch misfortunes. to

Dblerbations. 193 to lay aside their shamefac'dness, and plainly to lay open their condition, and to follow the advice and remedies of good Artifts. other, 3 deducre was no ful-

OBSERV. III.

rem opcaing to be deliger d the nat

Of a Sheath not quite closed, occasion d by a wound given by a child.

TN the year 1658, I was defired to deliver a woman of a dead child, who had already been two days in labour. This woman was exceeding hot and in a violent fever; yet fhe wanted no throws nor ftrength; which made me think it advisable to defera while her delivery, and to make her take a powder ad fætum expellendum. But the Midwife would not agree to this delay, but defired, that I would receive a more particular information of the cafe; whereby I come to understand, not only that the child was dead, but alfo that the woman was in great danger, by the fore preffure, and striving, to be wounded

R 2

104 Medico Chirurgical ed by the bones of the childs skull thov'd over one another; for, they had already perforated thechilds head: And, though there was pain enough in the Mother, yet there was no fufficient opening to be deliver'd the natural way: Which made me refolve to deliver this woman by Art, as I alfo did with good fuccefs. And vifiting her fome days after her being deliver'd (as my custome is to do in fuch cafes,) I found her pretty well, fhe finding no pain in making her water, and having her lochia reafonably well. Whereupon I preferibed her a good diet, which might be nourishing and cooling; and admonifhed her Nurfe, in cafe any pain should befall her Mistrefs, to let me know it betimes. And thus the woman was at laft cured

Yet four months after, fhe fent for me again, and complain'd, that fhe was not as fhe fhould be, being *imperforata*; (which fhe had learned by her husband :) Informing me withall, that there was a fmall aperture in

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in the middle, as fhe had found by putting the end of a tin-spoon, (which fhe shewed me) into it. So I found, that the vagina about the middle was by a thick membrane corrugated and grown together, yet fo as that there was left a hole in the midle, through which she had discharged her lochia and menses. I offer'd her my help, which she faid she would accept of, if it could be done without incilion. Which being impoffible, and fhe having no mind to undergo my way of cure, I was difinified ; whereupon flie spent much money upon divers Midwives, and feveral Empiricks; till at last the fent for me again to have my affiftance, fince fhe was with child again, and gone half her time. But not knowing any other method to help her, than what I had propofed to her formerly, fhe shew'd her unwillingness again, and dismissed me the fecond time. Since which time I could never learn, where fhe is, and in what condition, dead or alive; though I have inquired after her. R 3 Mean-

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Mean-time, I am assured, that she could not be deliver'd, except that passage was enlarged, or by the Casurean Incision.

It may be demanded here, why the former womans vagina was perfectly closed, and that of the latter not? I answer, that the former womans evil was caufed by a Gangrene, at which time of feparation the Womb could be deliver'd and purged ; and after the ulceration (not being hindred by the flooding) could much better come to a coalescence. But the other wound was a solutio continui, whereby nature had more conveniency to make it prefently grow together, before the purgatio per lochia was quite ended, which alone did hinder, that it could not heal up, in the middle; whereas the other ulceration was in the former woman in progress of time purged; and fo not being impeded by any lochia or menfes, had the conveniency to coalefce, and to heal up together.

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Of the Third Part.

Which caufe treat pain both in

Proceeding to the third part of our Division of the Womb, which is that they call the Neck of it, beginning from the inner end of the vagina, and being that fpace which is from that end of the vagina to the fundus uteri it felf; we are to know, that this Neck is very narrow, and comes to be that very close, and even to close that a thin stilet will not pass into the bottom of the Womb : By which infirmity the Womb remains fhut ; and 'tis caufed by fome cold humors, stale feed, or stale Menstrua, whereby this neck comes to be fwelled together, when they are compacted upon it. Hereof speaks Happocrates in his 54th Aphorzsm, when he faith, Quibus os uteri durum est, iis connivere os uterinecesse est. For, at the time of the menftrual purgation it sometimes comes to pafs, that Nature only difcharges her felf of the thinnest blood, and retains the groffer and thicker part; whence R 4 D DELLI

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whence it comes alfo, that lurking winds remain gather'd in the womb, which caufe great pain both in the belly, and in both fides thereof. In fome women this Neck is fo hardned. tapering out, and funk down; that sometimes I can do them but little good by emollient and difcutient fomentations, nor by anointing remedies; but am forced in that cafe to enlarge it by means of the Radix gentiana, Medulla sambuci, or even by a prepar'd and dried fpunge, having been first moistned in melted white Wax, and fqueefed in a Prefs, to make of it convenient pessary's, according to the exigency of the cafe : By which means the Neck of the womb can be disclosed and widened, and made to have its due purgations.

Now being thus widened, there may eafily be inferted in the opening an Inftrument turned of Silver, Ivory, or Horn, in the fcrew-affhion, but having one end fomewhat thicker than the other, and the upper end being like a great Clyfter-pipe; within turn'd

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turned hollow and pervious: Of which I have caufed (on this as well other occafions) to be made many, and of different fashions, fome bigger and thicker than others; to have them in readinefs upon occasion.By this means, Nature may disburthen her felf of viscous matter, corrupt blood, and other fætid sordes ; especially if she, being made aware of the conveniency of discharging her self, is affisted by coughing, laughing, fneefing, and striving. The Patient may, without any inconvenience, when the faid inftrument is inferted in the part, carry the fame, and go about with it, for a constant discharge of the Womb. So that 'tis much better to make use, in this cafe, of this prepar'd instrument, whereby it may be constantly entertain'd, than to haften the cure by the violence of a knife.

However, I shall for the improvement of Chirurgery propose a question, viz. Whether one may not widen fuch a hardned and tapering close protuberancy of the Neck of the

110 Pedico-Chirurgical the Womb (caufing fuch mifchiefs) by a little crooked knife, when it cannot be effected by any fc. mentation, anointing, syringation or the like means; and that after the manner used by antient Masters in wounds made by shot, thereby to extract out of the narrow and now enlarged wound fome pieces of the fracture, or a splinter, or the bullet it felf; or after the way ufed by the Speculum vagine, as we have shew'd in the former observations especially, fince we have heretofore fhew'd. that the wound of the Uterus, which is necessary in the Casurean Section, is not mortal, much lefs this; as alfo that in that operation there is no fear of a great effusion of blood, contraction of nerves, or fever. Which would give us hope of lefs difficulty in opening the Neck in cafe of neceffity.

For answer to this Question, it is well to be noted, that I readily allow this enlargement by fuch a knife to an expert Artist, in case that the hard

Observatious. 111

hardned and tapering protuberances are little fenfible at the touch ; but when there is an hardness accompanied with a sharp pain, and there appears a thin, fluid, and foetid matter, with a blackness upon it, then 'tis not advisable to meddle with it; for then the evil is incurable.

Of the fourth Part.

Concerning the Fourth part, which is the very Womb it felf, the foil of mankind; in it may grow a Mola, being a preternatural tumor, whereby the Womb is obstructed and kept from being discharged of its natural purgation, and hindred alfo from conceiving. Paulus Ægineta, 1. 3. c. 69. Reckons the cure of a Mola amongst the cures of other hardned fwellings of the Mother. Aristotle and Galen fay, that it is an imperfect and ufeless piece of flesh preternaturally grown in the Womb, which fometimes stays with the Patient the first month; fometimes the third and fourth

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fourth, fometimes until fhe comes to die. Of these *Mola's* the little ones, if they be not grown to the womb, nor have any communication therewith, are easily cured.

Jacques Guillemeau speaks of one true Mola, grown fast to the Womb, and perceived by the Patient to have some life and motion; and of four false ones, in which is perceived no motion at all.

The true is a Carneous fubstance, having veins and arteries difperfed through it felf, but without any bone or skull; of a hard round thape, fometimes moving, and being indeed a false conception.

The *false* ones arc, the Aqueous, Windy, Cutaneous, and fuch an one as confifts of divers humours.

Dr. Nicolaus Tulpius in the 19th Ch. of his first Book, writes of a Mola imaginaria.

Most Authors are of opinion, that they cannot be bred but by the conjunction of a Man ; as being produced, in their opinion, by foul menstruous blood,

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blood, and corrupt and unfound fperm. The figns of them are, a tumified Belly accompanied with emaciation; a clofed Womb; a dejected appetite; naufeoufnefs, and reaching to vomit; ceffation of the menfes; fwelled Breafts; as alfo oftentimes pain in the loyns; fo that fuch women in the beginning doubt not of their being with child; though in time they do find it otherwife, as when they go beyond their time, or are difcharged of it by nature when 'tis yet fmall.

Touching the Cure required for it, 'tis the fame with that which is ufed in the expelling of a dead fruit, or with the manner of bringing away the fecundine, or a remaining Head of a child : which ways of curing are fufficiently deferibed by feveral Authors, as *Hieronymus Mercurialis*, Jac. Primerofus, Rodericus a Caftro, and others. But when this Tumor is fastned to the Womb, then 'tis incurable ; though divers Authors have written of it. For 'tis true, you

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you may by inftruments extract a piece, whereupon follows a Flux of blood, with lois of ftrength; but, if they be firmly united to the body of the *uterils*, they are never perfectly brought away, and then do in time grow on again, and ftick to the Patient as long as the liveth. Such a Patient I have now in hand, who now and then loofes of it even a good piece of flefh, though it grows again, and fometimes the falls fo copioufly a bleeding, that the lofes in a manner all her ftrength, and is in danger of dying away.

And this is, Sir, what I thought good to prefent unto you for the improvement of our Art of Chirurgery, expecting hereupon your judgment, as knowing the great knowledg and experience you have in thefe matters.

us, Jue. Primerolaus, Rodericus

PROUPD CIVERS

fre, and others, but when this

is faimed to the Wond.

Deferbations. 115 AN APPENDIX OF Two OBSERVATIONS.

OBSERV. I. Of the happy Cure of a Toung Child's Fundament, which was almost totally closed.

In the year 1646, we cured a Child four Months old, which had its fundament almost quite closed, having only left a very small opening, out of which the Mother was forced with her fingers from time to time to squeese the excrements, though she could but press out the thinner part, the grosser and thicker remaining still in the guts, and causing a great intumescence and diffension in the

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the child's belly, accompanied with a fever, anguish and pain, infomuch that at length hardly any thing could be brought away by squeeling, yea the fundament came by the great diftenfion to be quite shut up. We therefore delaicd no longer the opening of this fundament, making with a lancet a small aperture in the middle,& duly widening it with sharp sciffers on both sides : Whereupon there followed immediatly great ftore of excrements that had been hoarded up, and the belly began to fink confiderably, and the reft of the symptoms to cease. Upon this good effect, we put in thick flat wiecks, dipt in the unguent of Tutia, which is very drying, and very useful to prevent bleeding : And by this means the child, which was a girl, was fully cured in a few days. We used in this case no leaden pipe, as they commonly do; for the fundament thus open'd as we did, could by putting in the wieks be fufficiently kept open.

The like Opening was fuccesfully perform'd by Mr. Roger Beerenart in the **Observations**. 117 the Nysel-sluys, on a child, whose fundament had been wholly shut up.

OBSERV. II.

Of a little child with a closed Fundament, whose opening was endeavour'd in vain.

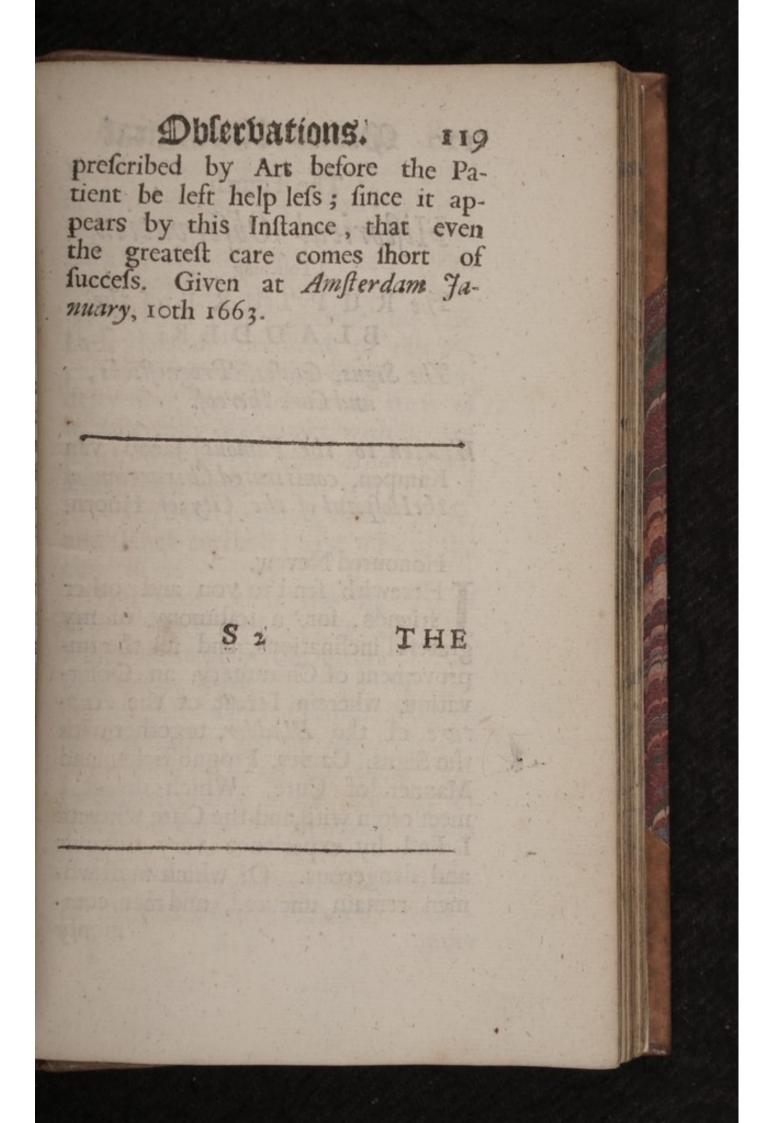
A N. 1643. my Master was called to come to a child, born in the Eenboorn-fluys with a fundament quite closed, and having already lived two days in great anguish and pain. He viewed the place, and fearched where it might be most conveniently open'd; and then with a broad lancet made an opening one inch broad, and two inches deep. But what care foever he took, he could. not light upon the intestinum rectum, and was forced to leave the child helpless, endeavouring only to heal up the wound again, and expecting what nature would do alone. Natura enim deficiente, deficiunt Medici. The 14th day after the child's being born

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being born, the news came that it was dead, and that the Parents were very defirous the child fhould be open'd, as it alfo was in the prefence of Dr. Franciscus Deleboe Sylvius, now Professor of practical Physick in the University of Leyden.

The child's belly being open'd, we found the entrals of it found; but it had only one kidney, lying in the middle of the belly, and the intestinum rectum terminating directly in the bottom of the Bladder, fo that the excrements, which naturally are fent out by the Fundament, were here difcharged into the Bladder; and thefe Excrements increafing fo much in quantity, that the urine could not fufficiently diffolve and thin them, to void both together by the ureters, the Bladder was thereby exceedingly inflamed, and a violent fever raifed, which could not but kill the child.

Here I must exhort all Students of Chirurgery, to take very great care in the fearch of fuch detects of nature, and to try all means pre-



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The Fourth Historical Observation Touching

The RUPTURE of the BLADDER;

The Signs, Causes, Prognosticks, and Cure thereof.

Written to the Famous Jacob van Kampen, constituted Chirurgion of the Hospital of the City of Hoorn.

Honoured Nevew,

I Herewith fend to you and other friends, for a testimony of my grateful inclinations, and for the improvement of Chirurgery, an Obfervation, wherein I treat of the Rupture of the Bladder, together with the Signs, Causes, Prognosticks, and Manner of Cure, Which defect I meet often with, and the Cure whereof I find by experience very difficult and dangerous. Of which most women remain uncured, and men commonly

Oblerbations. 121 monly die. I have not been able, notwithstanding my most diligent inquiry, to find any Authors that have written of this defect, which might give me any instruction about it; parhaps partly because this cafe hath feldom occurred to others, partly because from an excess of modefty they have forborn to treat of it, efpecially when met with in women. To fupply this desideratum. I shall now impart unto you what I have observed touching this Rupture, and what method I have used in the cure of it

You know, that the Bladder of urine, which I fpeak of, is that veffel, which is made by the Author of Nature for a receptacle of the fuperfluous ferofities which from the kidneys are fent thither, and are there collected in the form of Urine, and thence excreted according to the exigency of nature, if the be not hindred by this defect.

This Bladder is feated in the middle of the under-belly, called by Anato-S 3 mifts

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them fomewhat fwell, and fo the better to keep the band upon the belly : For, here can nothing be used but compresses with a fit binding-band about the body, feeing it must not be dreffed but once in 36 hours. The Patient is to cat nothing but nourifhing, drying, and pain-allaying meat, to wit, roafted Mutton, or Pullets, newlaid Eggs. Naples-bifcuit, Makeroons, Marcepain, dried Cherries, Morello's, and the like. For drink (which muft be very fparing) he is to drink Greekwine, and good old Red-wine, and white Marseilles-meath, Gc. The band or drefs is not to be opened but as was faid above, and unlefs it be for a weighty reason, and to let the Patient make water : which must be done with great caution. And the Patient must keep himfelf quiet in his bed, lying on his back, with his belly fomewhat raifed, and fo continuing till he be healed.

But in cafe that the Bladder is burft in fuch a manner, that 'tis not poffible to get at it, and to heal it, then it muft be

Oblerbations. 123 orbicularis Sphinster, the propelling muscle; but is by D. Gerardus Blasius not counted a muscle, but a carneous membrane; as you may see in his Syntagma Anatomicum Johannis Veslingii. 'Twill be needless, to fay here any more of the Anatomy either of the Neck of the Bladder, or of its fubstance, or veins, Arteries, Nerves, and of it's use; what has been already faid, being sufficient for our purpose.

Now then to begin with the Signs of the Rupture of the Bladder, you may note, that it is perceived, first, both by the Eye and the Touch; as also by having received an extraordinary knock or blow upon the belly; and when one cannot make water, nor hath any inclination for it; and when his belly comes to fwell with pain and diftenfion, and 'tis not possible to bring away any urine by the inftrument called Catheter. And particularly in women, when they find their urine to leak through the vagina, and to come away 4

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way against their will; causing in the vulva great pain, burning and fmart, the urine also having an odd fmell, like that which comes from those that are leaking after they have been cut of the Stone. and having on the bottom of the urinal most commonly a stony and chalky matter, mixed with fome fibrofity. And ordinarily fuch perfons have more pain in making water than after it, like those that have ulcers in their bladders; as, on the contrary, those that, have the Stone in the bladder, feel the greatest pain before they come to make water, unless the Stone be accompanied. with an ulcer; for then they are also pain'd after they have made water. The cause whereof is, that the angular stone by a pressure of the Urine is caried forwards, and by little and little finks again to the bottom of the bladder, and so causes pain also after the water is made.

But to go yet furer in the knowledg of the Bladders rupture, I do

In

Oblerbatious:

in that cafe fearch with two Catheters, conveying the one into the ordinary urinal paffage of the Bladder, and the other through the vagina into the rupture or burfling, going as far as into the Bladder; and I bring both the Catheters together, fo as to perceive them by the contact and found.

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You may alfo come to the knowledg of it by applying the *[peculum vaginæ*, having therewith fomewhat widen'd the body, fo that you may plainly fee with your eyes, and feel with your fingers the rupture; as we fhall hereafter explain in the Cure.

As for the *Caufes* of it, they are of two forts; Internal and external. The *Internal* are, either a Stone, or a ftony accretion to the Bladder, clofed up in a membrane of its own; or, the robuftnefs and vigour of a child, ftriving with all its might to come into the World; or, the fulnefs of the bladder with urine, and its inability to refift fo great a force both of the Mother and child, by reafon of its thinnefs.

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nefs. The *external* are, a violent blow, fall, or knock; as alfo the ufe of much humidity in hard labour, or of ftrong diureticks; violence likewife ufed by an unskilful Midwife in the lifting up, as they pretend, of the os pubis.

As to the first Inward cause, viz. the ftony accretion to the bladder, included often in a membrane of its own, or sometimes communicating with the membranes of the bladder : I have met with feveral fuch cafes, and been obliged to take away the skin with a pair of fciffers, feeing it was befet with much ftony matter and accretions. It may also come to país, that, in cafe there be a formed stone in the bladder, included in a membrane of its own, fuch a ftone, by the preffing and force of the child, to which it is put in the time of labour, is broken in pieces : For, most women that I know to have been troubled with this evil, have by the rupture of the bladder discharged a stony and chalky matter, mixed with fome gravel.

Dblerbatious.

vel. For, although the Stone hath no communication with the membranes of the bladder, or is not grown to them, yet it may by the urine, and its great preffing on, as alfo by ftrong diureticks, come to fhoot forwards; fo that the Bladder in a hard labour not being able to yield, and being preffed by this calculous fluff, is at length wounded and broken; whereby is caufed a fharpnefs of urine, now lying between the *vagina* and the bladder, which acrimony firft produces rawnefs and pain, then ulceration and leaking.

Now that there grows fometimes a ftony matter to the neck of the bladder, as well as there grows a ftone in the bladder, many can witnefs together with me. For we often find it in the cutting of the ftone; as alfo, that it lies clofed up in a membrane of its own, and communicates much with the bladder. You may alfo fee hereof the Medicinal Obfervations of Jobannes Schenckins, lib tertio de Vefica urinaria: As in Obferv. 269. where he

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he faith, Lapides vesicæ non-nunquam, novo exemplo, concluduntur involucro cutaneo, qui ob id cathetere explorari minimè possunt. And in Observ. 270. where he proves, Calculos aliquando vesicæ adnasci & adhærere. And Hollerius de morbis internis, l.1 c.49. Mercatori cuidam omnia calculi vesicæ signa aderant. Cathetere probari non potuit. Mortuo, duo magni calculi inventi sunt; singuli unciarum duarum semis, membrana inclusi nterq; sua.

And Ambrofius Pareus in his 17th. Book, the 36th. Chap. faith; In cafe that the flone is very firmly faftned to the bladder, and cover'd with a membrane, then can it hardly be founded with a catheter, and the Chirurgion will alfo lacerate the bladder, if he thinks to draw out the flone; whereupon commonly enfues a gangrene, convulfions, and death it felf.

Amongst the *external* causes, we did comprehend a violent blow, knock or fall, received especially when one hath not made water a great while **Obletivations. 129** while before, and fo hath the bladder full, which then muft needs burft. This may particularly come to pafs by a fudden yerking out of bodies, as of a cable to the utmost extended, or a Cap-stone fuddenly flying back, Sc.

And that it may also befall women in labour, is apparent, becaufe that fome of them being very dry, do greedily drink, whereby the bladder comes to be highly extended : Now the child striving with great force to come into the world, the Bladder is thereby in great danger to burft, especially if diureticks have been used to hasten the birth; unless by a Catheter the bladder have been first discharged : For which reason, Physitians are wont to prefcribe clyfters, thereby to empty the Intestinum rectum; which is of good effect, if use be made of them time enough, before the child be come to the birth, and is as yet not advanced with the greater part of its body out of the womb into the vagina

130 Medico-Chirurgical gina. For, when a fætus is already come to the birth, then are Clyfters useless, though fomentations and anointings may then stand in good stead. And here are great mistakes committed by many Midwives, who, when they are at their wits end, talk of Clyfters, and think that they may be used in all cases without delay, turning the good use of them into a great abuse; whereas by an untimely application thereof both the Mother and the child are fo incommoded and tormented, that whatever is near it (especially if the fætus be lusty and ftrong) must burst and break; instead of the advantage, which the feafonable use of a Clyster may carry with it.

And, (to note that by the by) fome will not fuffer a skilfull applier of Clyfters give a Clyfter to a woman in travel; as if they could do it as well or better. But I have found by fad experience, not long fince, that delivering a woman of a dead child, I found the Clyfter-pipe fticking

Dblerbations. 131

ing in the child's breast after it was come into the world : Whence it appear'd, that this Clyfter, by the ignorance or impudence of the pretending wife Midwife, had been conveyed into the vagina it felf, perforating the breft of the poor child, in stead of being conveyed into the intestinum rectum; the Phyfitian also finding, that the Clyster had produced no effect at all.

I must therefore intreat and exhort all Midwives, that the child being well turn'd and come to the birth, they take great care not only of what the travelling woman drinks, but also of her body and strength, and that they put no violence to it, especially about the os pubis; for thereby this may eafily bruife and wound the neck of the bladder. This not being observ'd, it often comes to país, that often women after their delivery cannot hold their water, but must let it pass against their will; which is an unhappy thing.

Bur

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But to proceed to the *Prognofticks*; I affirm, that a Bladder burft in a woman by an *internal* caufe, is moft commonly curable; but, when caufed by a fail, blow or knock, mortal, efpecially in men.

The wound is more dangerous in the bottom of the bladder than elfewhere ; where it is joyned to the *vagma*, the danger is not fo gaeat.

And as the wound made by an internal cause is not fo dangerous, as that which comes from an exter. nal; fo that which is the effect of an Ulceration, is lefs dangerous than that of a Rupture. And how difficult the cure of the latter muft be, is easie to conjecture by its membranous texture : And when it happens to be in the bottom of the bladder, 'tis then altogether incurable, because then there arise immediately sharp pains, inflammations, a fever, and convulfions. For the bladder, which else is a repository of the urine, doth now let it flow through all the belly, where being gather'd together, it fwells

Oblerbations! 133

I wells it exceedingly, and by its acrimony corrodes the bowels, and extinguishes the natural heat, as it happens in Dropfies: Whence the miferable Patient must soon die. An example of which occurred to me in the year 1645, upon the Gelders Key, in a young man, who being come home drunk at night, and gone prefently to bed with a full stomach, when he awaken'd in the night, and met neither with chamber-pot, nor any thing else to make water in, resolved to pifs out of the window, and thereupon thrufting against the window as he thought, he thrust open the door of an upper room in a pack-house; where, being yet between fleeping and waking, and not able to hold himfelf when he began to make his water, fell down headlong with his belly upon the threshold of the house-door, whereby the bladder, not yet fully emptied, came to burft : Whereupon, as foon as this fad cafe came to be known, he, who had no relations to take not tice of him, was carried into an Ho-T spital.

118 Medico Chirurgical fpital, being in an high fever, and fadly complaining of great pain in his belly, which was much fwollen and diftended, without any defire to make water. This poor Patient could be relieved by no remedy, whether inward or outward, nor by any Clyfter; neither was there a possibility of drawing any urine away. by a Catheter; fo that he died the 14th day after his fall. The corps was opened by M. Rogier Beerenart, in the prefence of the Learned and famous D. Samuel Coster, and we found his belly full of water, and the bottom of the bladder quite burft; though the rest of the entrals were found, being only fomewhat corroded by the sharpnefs of the Urine.

But now, if the Bladder come to burft near the neck, there is no doubt but that by reafon of its mulcular fubflance it may be cured; or when that happens about the SphinEter of the Bladder, or above the os pubis; of which you may fee an example in Nicolaus Tulpius, l. 4. c. 29. of his Objervations, where **Oblervations:** 119 where he faith: Miles plumbea glande itsus doluit impense in imo ventre, ob effractum pubis os, vesicam summe dilaceratam, cujus tamen vulnus, præter mentem aphorismi 17. 1.6. ad cicatricem cum foret perductum, non minxit propterea liberius; sed reddidit nihilominus urinam cum summa difficultate.

This Cure therefore in our cafe, muft be undertaken with great care, and the Chirurgion is obliged to confider, first of all, the ftrength of the body, and take alfo good notice, when the woman had her laft *lochia*, and in cafe fhe be of a fanguine or other conflictution, prefcribe her accordingly, upon the advice of a good Phyfitian, a good diet, and heedful regiment of life: And *then*, duly difcharge her body as well by purging as bleeding, if the cafe doth fo require.

The Operation it felf is performed in manner following : The Patient is laid on a Table, towards a good light, and have the upper part of the body T 2 covered,

136 Dedico=Chirurgical covered, and the lower part fecured with fwathing bands, as is usual in the case of cutting persons of the Stone. This done, 'tis necessary with all fpeed to widen the body by means of a speculum vagina, according as occafion shall require ; and then to make raw and bloody the edges of the ulcerated vagina, where with the lacerated part it is joyned to the bladder, and as little as is poslible to approach the bladder: For the vagina is first by the ulceration, and then by the edges fo united to the lacerated Bladder, by the providence of nature, that being but a very little and duly taken off, and flitched together again, the cure may be performed with great eafe. The refection or taking off is made by a pair of well-cutting small pincers, or by fciffers, or fome sharp little knife, or the like proper instrument, as the Mafter can beft manage on fuch an occasion. But I have found, that nothing is better than a small pair of cutting pincers; but they must be as fliarp as is poffible, that they may not caule

Obserbations. 137 caule any contusion in the cutting: And hereby the edges of the lacerated part is a little pared off, and rendred raw and bloody; and they must instantly be stitched together again; but not by filver or gold-needles, as is usual in Hare-mouths, but by stitching-needles made of a ftiff Swans quill, cut fine and fharp; which I chufe by reason not only of their flexibleness, but also of their causing lefs hurt to the neighbouring parts before their being conveniently defended; and these needles must be thredded with red Carmelyn stitch-filk. Such needles as these being bent, they will of themfelves become streight again. This being done, the stitched wound is to be moiftned with fanative balfom, by me defcribed in the 6th. Historical Obfervation of the 2d Part; and the fame wound is to be swathed about with two or three great flat ----moistned in the warmed Balfom-oil, and you must fill up the belly with convenient spunges, moistned a little with oil of fweet Almonds, to make T 3 them

122 Dedico-Chirurgical them fomewhat fwell, and fo the better to keep the band upon the belly : For, here can nothing be used but compresses with a fit binding-band about the body, feeing it must not be dreffed but once in 36 hours. The Fatient is to eat nothing but nourishing, drying, and pain-allaying meat, to wit, roafted Mutton, or Pullets, newlaid Eggs. Naples-bifcuit, Makeroons, Marcepain, dried Cherries, Morello's, and the like. For drink (which muft be very fparing) he is to drink Greekwine, and good old Red-wine, and white Marseilles-meath, Cc. The band or drefs is not to be opened but as was faid above, and unlefs it be for a weighty reason, and to let the Patient make water : which must be done with great caution. And the Patient must keep himfelf quiet in his bed, lying on his back, with his belly fomewhat raifed, and fo continuing till he be healed.

But in cafe that the Bladder is burft in fuch a manner, that 'tis not possible to get at it, and to heal it, then it must be

Oblerbations.

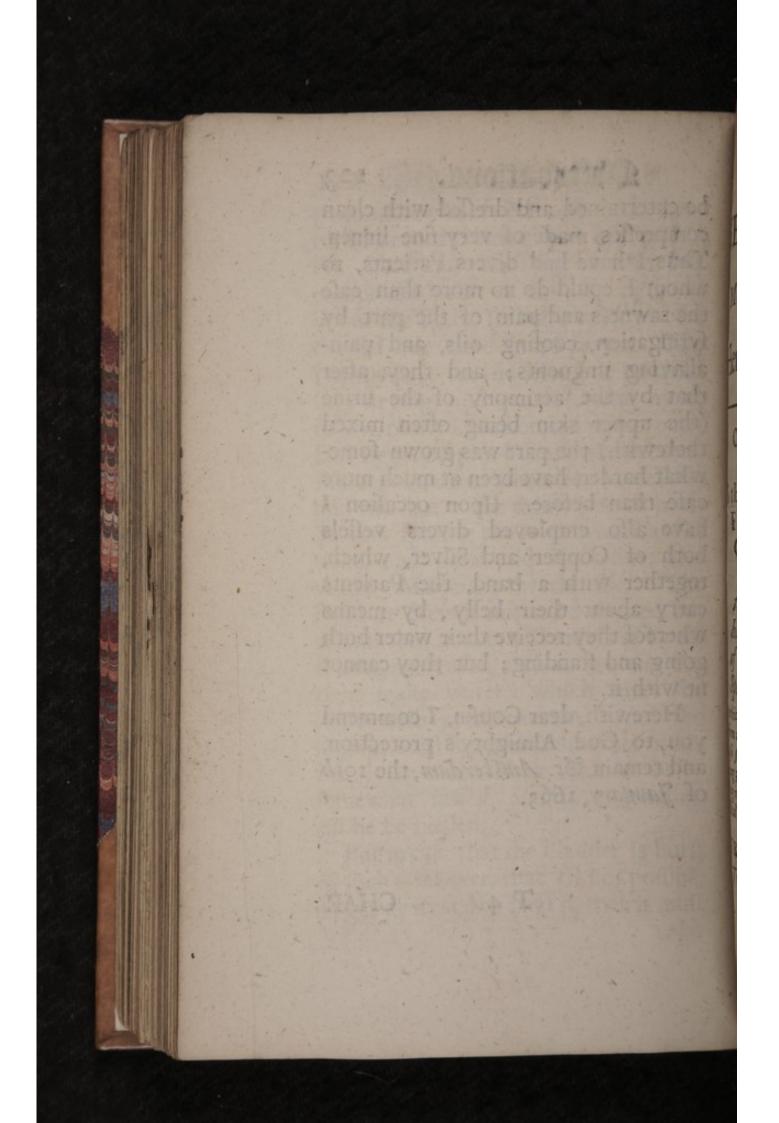
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CHAP.

be entertained and dreffed with clean compresses made of very fine linnen. Thus I have had divers Patients, to whom I could do no more than eafe the rawness and pain of the part by fyringation, cooling oils, and painallaying unguents; and they, after that by the acrimony of the urine (the upper skin being often mixed therewith) the part was grown fomewhat harder, have been at much more ease than before. Upon occasion I have also employed divers vessels both of Copper and Silver, which, together with a band, the Patients carry about their belly, by means whereof they receive their water both going and standing; but they cannot fit with it.

Herewith, dear Coufin, I commend you to God Almighty's protection, and remain, &c. Amsterdam, the 10th of January, 1663.

T4



THE SECOND PART OF THE Medico-Chirurgical Observations OF

Henry van Roonhuyfe.

OBSERVATION I. WRITTEN

To the Learned and Famous Dr. de FOY, alias LUC, Chirurgion in Ordinary of the Lords the States General, and Principal Chirurgion to all the French Regiments which have been employed in the fervice of the United Netherlands, in the Spanish War.

In which Observation is not only clearly proved the firm union of the dura mater to the skull, but also shew'd the modern Use and Abuse of Trepanning; the Abuse proceeding from the slight knowledg in some Chirurgions of the Anatomy of the Head and the parts thereof.

SIR,

YOur acceptable Letter of the 28th November, 1656. came well to 126 Medico=Chirurgical to my hands, being an answer to my laft, written to you, wherein I reprefented unto you, that by feveral Diffections of Animals, to wit, Calves, Sheep, Dogs, Pigs, and others, I was fully affured, that the dura mater in Animals is always fo firmly fastned to the caviry of the cranium, that without violence it cannot be fever'd from it: Which I have also found in divers skulls of men, opened by me; fo that now I am fatisfied of the manner, how the faid membrane flicketh to the skull, viz. whether it be only firm and close to the futures of the Head; or whether (as I think) it invefts and flicks clofe every where to the inner fides of the skull? Which is a difference yet contested amongst Anatomists and Chirurgions. The famous Chirurgion Fabritius Hildamus in the 7th Observation of his first Part, faith thus : Inciso & perforato, dura mater ubig; cranio firmissimé adhærere inventa. But this great Mafter held this to be preternatural, together with Constantinus: For, he faith

Observations. 127 faith again ; Dura mater connectitur futurarum ope, tum ut pensile & erectum teneat cerebrum, tum etiam ut per suturas egressa pericranium procreet. Spatium inter suturas recté natura liberum religuit, ut vacuum quoddam esset inter duram matrem atg; calvariam; bas nimirum ob caufas. Primo, ne quicquam ipsius Cerebri fystolæ ac diastolæ obstaret. Secundo, ne venæ S arteriæ, per extremum duræ matris sparsæ, levi aliquo ictu in Cranio facto rumperentur. Postremo, ut ruptis in dura matre venis, sanguis non inter duram ac piam matrem, sed inter duram ac cranium effunderetur, G perforato cranio facilius extraheretur. Hic est or dinarius natur & ordo. Nos contrarium in uno atg; altero obfervavimus.

For these and other reasons, Sir, I have taken the liberty to write to you concerning this matter, that I might have your opinion in it, whether you are of my mind, or not, touching the close union of the *dura mater* to the skull, or not. Now by yours of the faid

144 Dedico=Chirurgical faid 23th. of November I find, that your and my fentiment in this point do agree, to wit, that the dura mater doth every where closely adhere to the cranium within, fo as not to be separated from it but by force; no otherwife than paper is pasted on to a piece of Glass. For the communication of which opinion of yours I return you many thanks, being ready to recompence that favour to the best of my power. Meantime you speak to this matter with a diftinction, in these words: Ad propositam tuam questionem, Utrum dura mater interiore parte cranii ubicung; locorum firmiter adhæreat, Vir Chavissime & Amicissime? Respondeo, cum bac distinctione scilicet, quod in superiore, anteriore, posteriore, & lateralibus partibus, secundum tuammet opinionem firmiter adhæreat, sed guod circa os cuneiforme sit laxissima. Huie meæ affertioni potes fidem adhibere. Which, if it be fo, the body, wherein 'tis found, hath been for fome days dead, the humidity of the brain ha-Ving

Dblerbations. 145 ving made that membrane laxer, and forced it from the cranium. For in the body, whereof I speak, I sound it not fo, though I did very attentively confider it : But, according to the famous Spigelius, Processibus ossis cuneiformis crassa cerebri membrana adnascitur. Et secundum Thom. Bartholinum, dura mater valide basi ejus adhæret, ut inde ortam aliqui putaverint : Et secundum Adrianum Laurentium, dura bæc meninx basi calvariæ adhæret firmiter, nisi qua parte sita est Glandula pituitaria, lib. 10. c. 7. So that, Sir, I find in this particular your opinion different from that of these excellent men. But what shall I say other than that I hope in time to find the truth of this matter; concluding with Jacobus Berengarius, Carpensis, lib. de Fractura Cranii, bis verbis : Nunc autem de signis separationis dura matris a cranio dicamus; sed, antequam de istis signis agam, dico, quod non possum non mirari, esse aliquos Authores S non paucos, qui tenent, duram matrem semper distarc a cranio, exceptis com-

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commissurarum locis, in quibus omnes conveniunt, quod ibi sit allıgıta; sed illi sunt in puro errore, quales quales etiam sint, quia purum loquuntur mendacium.

The 14th. December 1656. I faw, with the Phyfitian Paulus Barbette, the body of a young man lately deceafed, whofe whole neck was full of fcrofuls; and his body being opened, the whole mefentery was fcrofulous, and the vifcera of the Breaft likewife. Having the opportunity of taking off the cranium, (which we did in the prefence of the Experienced Phyfitians, Francifcus Verschagen, and Matthaus Sladus, and divers Chirurgions of our City, who are all ready to bear witnefs to the matter of fact) we proceeded, as follows;

First, having cut crofs-wife, to the very bone, the skin of the head, and duly taken it off, we faw'd the cranium thorough from before to the hind-part, together with the Brain it felf, making first with the faw a gentle fection thorough the front-bone, until the

Oblervations.

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the fecond table was almost cut through; and then with the point of a sharp knife cutting through the dura mater, that so it might not by the faw be difordered: For it is of all the membranes that cover the bones, the thickess, toughess; and, according to the faying of Spigelius, crassa membrana, crassiorem ac duriorem babet substantiam, non tantum si cum sua conjuge conferas, sed cum reliquis universi corporis membranis.

The skull together with the brain being thus fawed thorough, I took it off carefully; for the tender and thin pia mater is by many fibers and arteries fastned to the dura mater (to the end that the Brain might the better have its motion) which therefore is to be taken off with care. This done, I fliewed to the By-standers what I intended, and every one of them did separate and tear off a part of the dura mater, that fo they might fee with their own eyes, and feel with their own hands what I faid, and bear witness to the truth. One part of that

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that membrane being fevered, we referved the reft for the coming of the famous Anatomist and Physitian Francifcus Sylvius; but he coming too late, having been kept away too long by bufinefs, the By-ftanders and Spectators related unto him what they had found, viz. that the dura mater did closely invest the inner fides of the cranium; having been hitherto by great Anatomists, as Spigelius and Laurentius, effeemed for a membrane enwrapping the Brain: Et tamen inter partes continentes annumerari potest, quia dura mater cranio est alligata, & maximum esset periculum de separatione ejus; imo impossibile est quin lædatur. Quid amplius dicam, quam quod agris possit mortem inducere 2

Now, if Trepanning be thought unneceffary, and the, dura mater be naturally united to the cranium, then certainly is the Decufforium to be rejected; and if it be effected neceffary, then is the faid Decufforium yet more unufual; for then one may conveniently

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veniently enough discharge the matter from the *dura mater*, when the Patient comes to close his nose and mouth, and so drives the included wind from the Breast to the Head.

So that the dura mater hath no other property; than within totally to invest the cranium, and to defend the motion of the Brain from the hardnefs and inequality of the skull-bone, that fo the Brain may not be hindred in its operation, or be put to any pain; (the motion thereof confifting in a Systole and Diastole.) Whence it may be understood, that the instrument, called Lenticulare, hath no other use but to raise and to lay even the edge of the cranium lying underneath, and to remove that unevenness of splinters that may perhaps have been occafioned by boring; but not to prefs on from beneath the dura mater, for a more convenient discharge of the fubfided matter, as is daily practifed by the Decusforium, as they call it. This being fo, it highly deferveth to be well confidered, in what cafes

150 Dedico-Chirurgical cafes Trepanning is necessary, and when not. For a concussion of the Brain causeth the same symptoms that a crack or fracture of the skull doth; and in this latter case, Trepanning, in the modern vulgar practise, is made use of, but often without any benefit; nam dura matre alligata maximum est periculum de incissone cranii, imo impossibile est quin lædatur meninx, quia firmiter adbæret cranio.

For first, when in this case you employ the Trepan, and that with care, (as I have feen it frequently done) there follows neither coagulated blood, nor purulent matter, but often 5 or 6 drops of good blood, caufed by the taking out of the bone bored round. In this cafe the cranium is forced from the dura mater; whereby grievous accidents are occafioned, and the Patient caft into the danger of his life. This is a very troublesome point for Chirurgions. For there are many, that take only their measure from the discharge of the blood which they fee come up; and

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and then they perfwade those that are concern'd, of the necessity of Trepanning. Whereas I, on the contrary, should in that cafe judg it unnecessary; for then the vulgar Chirurgions will, after the old way, go to work with cleanfing and abiterfive means; whereas, in my judgment, there should be employed no other than fuch means as give a cherishing warmth, and are anodyne and incarnative. But yet I am willing to fubmit my opinion to those that shall by reafon and experience instruct me better.

Secondly, the Trepan is often used in cracked or broken brains to no purpose : And in this case the ordinary Chirurgions have nothing to alledg for the necessity of Trepanning, but that the extravalated blood of the veins comes to prefs upon the dura mater; which indeed fometimes is true; but then there is fomething to be confider'd which is of more importance. For, fince in a crack or fracture of the skull the extravalated V 2 blood

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blood ouzes more through the wound, along the fracture, inwards, and fo leaks upon the dura mater, than that the arteries within, diffused through the membranes of the Brains, should come to break; why should we not refolve, by convenient fomentations, and by warming, discussing, repelling, and anodyne means (fuch as may be prepared with certain roots, herbs, flowers, and feeds) to draw out fuch blood as by the crack or fracture is leaked and got in, and thereby to diffipate and wafte it; as is done in great concuffions of the Brain, and big tumours and boyls of the head, in which the fymptoms are as grievous as in a broken skull ; witnefs, together with me, the excellent Chirurgion Arnoldus Tholinx, in a cafe which not long fince befell the Child of a Master of a Ship, that was fallen down from the upper deck of the Ship to the bottom thereof, being the height of 11 or 12 foot. Here the Trepan having been judged neceffary, upon the dangerous accidents en-

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enfuing, and by us proposed as such to the Parents of the Child, but by them refused; we employed nothing but convenient fomentations, and proper ointments, and the like; by which means the Child was happely recover'd, to the great instruction of my felf, and the benefit of others.

Observe hence, that sometimes there do follow fuch accidents, and yet the Patient is cured without Trepanning. The fame is attested by the Learned Jacobus Beringarius lib. de fractura Cranii c. 35. In these words : In illo qui fuerat ense vulneratus capite in cranio, erat fractura feré capillaris, major tamen, S intro penetrans, sine panniculi læsione. Circa decimum diem vidi accidentia separationem monstrantia: Statim ergo volui os incidere, & fifsuram ampliare; sed ille nunquam voluit permittere. Processi igitur in cura cum attrahentibus, & semper per rimulam illam exiit notabilis saniei quantitas. Cum ei imperarem, ut impelleret à pectore ad caput aerem, aut-

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safflando notabilis saniei quantitas exist; semper tamen babuit febres, S rigores, S inquietudines, ad quinquaginta fere dies.

That Patients may be cured of cracked and broken skuls without Trepanning, Experience teacheth, and Petrus Forestus attests it in his 32th Book; and that by refolving and diffipating remedies. And Lanfrancus tract. 2. c. 1. de Vulneribus capitis relateth, that he hath obferved more men cured by Medical remedies, than by Chirurgical trepanning; Adding, that he useth no instrument for the taking out of bones, but in two cafes; the one when the skull is fo broken, that the broken parts lie and lurk under the whole and found parts ; the other, when a fragment, feparated from the skull-bone, comes to prick and wound the dura mater. In which cafes, be faith, the removing of fuch fragments ought to be immediately indeavour'd. The fame is noted by Vidus Vidius of Florence, in his Exposition of the trea-

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treatife of *Hippocrates de morbis Capitis*; where he relates of a famous Chirurgion at *Rome* in his time, call'd *Perufius*, that averred, to have obferved by long experience more people recover'd without the help of the trepan, by difcutient remedies and ointments, than by cutting the skin and boring the skull.

To reject trepanning altogether, is not my delign nor meaning, because it is sometimes absolutely neceffary in great Fractures of the skull, where some point or other of the bone doth wound the membranes, and fometimes passes into the Brain it felf; or when one bone is shoved upon the other : But to be fo precife, as to use the trepan the second or third day, is not neceffary; for it may be defer'd with more benefit to the fixth or feventh day, and in winter yet longer; secundum Avicennum. qui inquit, oportet ut non tardetur æstate ultra 7 dies, in byeme vero ultra 10. And I fay with Nicolaus, that the bone is not to be removed but V 4. upo

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upon urgent neceffity ; forafmuch as the Patients are often recover'd by Topicks, without taking away any of the bone ; which Phyfitians thought could not be done. And if within ten days the fymptoms fhould come to diminifh more and more, I fhould then yet longer defer trepanning, and endeavour by the advice of a good Phyfitian to cure the Patient by other means; as you will be further inflructed in the obfervations hereafter following.

In the use of trepanning I have often found, that no fooner is the trepanned bone taken out, but there follow immediately five or fix, more or lefs, drops of blood; which is not blood extravalated by the fall or blow; but, in my opinion, from the *dura mater*, fome finall orifices of veins or arteries terminating in that place.

Again, it comes also to pass by a concussion of the Brain, made by a blow or fall, that some or other of the veins of the membranes, terminating in the skull, come to let out fome **Oblerbations.** 157 fome of their blood, which in a few days comes to change its hue : In this cafe the trepan is highly neceffary. And then you fhall feldom find good blood under the *cranium*, but on the contrary an ugly matter, drawing commonly to a green : which I have often obferved in the Trepannings performed by the experienced Chirurgion Roger Rogierfe Beerenart.

Now then, when a difcreet Chirurgion cannot avoid trepanning, I fay, that that vulgar instrument, call'd the Decussorium, is by no means to be used any more; for by it you will be apt fooner to pull off the dura mater from the skull, than make the matter to come away the better. For, if you take good care, the trepan would take away the shavings of the bone without caufing any splinters, unless the boring be not made every-where and equally deep, or that part of the bored bone by imprudence be forcibly broken out; and then the instrument, call'd Lentica-

158 Dedico=Chirurgical ticulare, is employed to make even the inequality, caufed by the force of taking out.

The other benefit, which they propofe to themfelves in preffing down the dura mater, is, that the purulent matter may have the better iffue. To which I answer, that the dura mater very firmly investing the inner fides of the cranium, it is beyond all doubt, that the fanious matter, or the coagulated blood, will not fink further nor lower, than the weight or plenty of the faid matter or blood by its gravity shall permit. Rejecting therefore the Decuforium, I fay, that, if that were not to as have faid, the matter would come to fublide at leaft to the first vertebra of the neck, and lower too; and it would not fo much caufe fuch grievous symptoms of a broken cranium, as of a wounded Spinal marrow.

Nor ought the City-Chirurgions, because of the report they are to make for the information of the Court of Justice, take off the brain-pan a-

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ny more after the received way, which is, by a decuffating cut unto the very bone, and after they have (according to the old method) fever'd the membrane of the faid Pan, by fawing the skull round about, and then using a flat crooked Spatule, to loofen the dura mater, and to fever it from the futures, to which it is every where fast, and fo forcibly rearing the Brain-pan from the faid dura mater, by which means the fmall orifices of the Arteries, terminating in the calvaria, come to be torn off, to the great mischief of the Patients; For the Calvaria cannot be well taken off this way, but you will find fome drops of blood spilt upon the dura mater, and also between it and the pia mater. To avoid which danger & mischief, I must needs prefer the former method to this; yet without imposing upon any experienced and difcreet Masters of the Chirurgical Art.

This is, Sir, what I thought good to prefent you with for a New yearsgift, returning you many thanks for the

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the honour you have done me, and begging your judgment upon these confiderations of mine; promising you also at the same time, that I shall be no sooner come back to the Hague, but that I will seek an opportunity of conferring more largely with them, particularly about this Question, viz. An Hydrargyrum per se excitet factorem in Ptyalismo nec ne? Written in Amsterdam, the 18th Decemb. 1656,

But fince I have by my daily Pra-Etice been hindered to difcourfe with you more nearly, to prove that Quickfilver in a ptyalifm doth not of its own nature raife a ftink; I fhall acquaint you, that I had an occasion to write of this fubject to Dr. Wilhelmus Pifo; whence you may fufficiently understand my thoughts about it, not doubting but you will take them in good part, as follows;

Clarissimo Doctissimoq; Viro Dom. GUILIELMO PISONI Med. Doctori Expertissimo S. P. D.

HENRICUS à ROONUYSE.

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VArias easq; jucundissimas, rem Medicam spectantes, sententias, exhibuisti, dignas sane non solum omnibus aliis, sed S mihi ipsi inquisitione ulteriori. Hinc dies nottesq; impendere necessarium omnino duxi, si non ad omnia, saltem plæraq; eorum, quæ exercitii gratia proposuisti, vellem satisfacere. Quæstionum illarum præcipua est: An Hydrargyrum in Ptyalismo per fe fætorem excitet, nec ne?

Ego posterius probabile censeo, adeoq; Hydrargyrum nullum per se excitare fætorem existimo.

Primo, quia minerale est frigidæ ac humidæ naturæ, secundum Fernelium; ac in nervosis corporis partibus, nullum excitans symptoma, per multos latitare potest annos: In Ptyalismo verò ulcera ab humore excitato fiunt, cujus acrimonia exulcerantur gingiva, lingua, partes g; aliæ. Quoties enim corporis extremitates unguento inunguntur Mercuriali, toties ad nobiliores interiores estremitates Hydrargyrum fertur, ad Intestina nempe, Stomachum, Cor, Hepar, Sc. mediantibus vasis san-

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Sanguinem continentibus, maxime venis; in quibas omnibus vel fermentationem novam humoribus corruptis inducens, vel eam quæ jam adest promovens, halitum S malum odorem excitat; S hinc est, quod si pravi hi venenatiq; humores ex visceribus interioribus vasisq; expelli nequeant, Lipothomia, Febris, Anxietas, Cardialgia, Vomitus, Diarrbæa, similiaq; symptomata, proveniant; per os autem si expellantur, ob acrimoniam, quam babent, ulcera ac deinde sætorem excitant.

Secundo, in Ptyalismo ulcera quo majora, eo major fætor; qua de causa non Hydrargyrum sed Olcera fætorem parere liquet; sordida enim Olcera fætorem parere liquet; sordida enim ulcera suos, (ut alia excrementa) babent fætores.

Tertio, Hydrargyrum per abvum st exoneretur, æger in diarrbæam incidit, S cum Ptyalismus excitari non potest (ut in quibusdam sit) nullum nisi ab bumore peccante, in visceribns segregato, babebis sætorem : Sed non ab

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ab Hydrargyro; quod arte Chymica ita fixum reddi potest, ut nullam in corpore operationem exerceat, nisi quod sudorem moveat: Ac in ea operatione Hydrargyrum nullum excitare setorem potest; ut nec in iis, in quibus Hydrargyrum per urinam expellitur, ut aliquando observavi,

Quarto, idem Pilulæ ex Hydrargyro crudo factæ docent, quæ bilem aliorumg; bumorum acrimoniam domant, compescunt, eosq; sensim, nullo ventriculi incommodo, expurgant; quod in Iliacz passionis curatione videre est, secundum Marian. Sanct. lib. de Casu. Quod si minerale illud probe præparetur, & sublimatione, calcinatione, solutione, similive modo in esfentiam redigatur, excellens evadit Theriaca, Josepho Quercetano teste. Idem singulari ratione in essentiam reda-Etum, Auri essentia simile esse, quidam contendit; homines quasi ad juveniles annos revocandi virtutem ipsi assignando, dum scil. virtute mirabili eos ab omnibus putridis venenatifq;, mortem accelerantibus, bumoribus liberat. Vir-

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Virtus hydrargyri, per artem præcipitati, quanta sit, videre licet apud Palmar. 1. de Elephantiasi, quem bis verbis concludit: Omnium remediorum Elephanticorum vires Catharticum nostrum Metallicum superat, acrem omnem ac feram humorum omnium qualitatem ac malignitatem mirè obtundens, ac nihilominus adeo blandè alvum solvens, ut pueris & prægnantibus tutò dari possit. Constat illud ex Auro ac Hydrargyro sic permixtis, ac longa maceratione immutatis, ut vim Catharticam assesses

Quibus ex rationibus Hydrargyrum in Ptyalifmo nullum excitare fætorem, fatis constare puto. Vale, vir Doctifsime, & me tibi commendatum habe. Dab. Amstelodami è Musæo meo, d. 15 Junii, 1658.

Tuus

Henricus Roonhuyfius.

OBSER

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OBSERV. II. Of Wounds in the Head.

1663. in the month of Fe-. bruary, the Professor Gerbardus Leon. Blasus together with me, opened several bodies, in which he shewed, that the dura mater was every where fo firmly closed to the skull, that we caused the Spectators to tear off several parts of it; desiring them, that, if any of them in this laceration could find any place, where it was not closely united thereto, he would let us know it; we being affured, it would be found in all bodies, as we have faid. The manner, we obferved in opening these Heads, was this: After that the skin was taken off the ordinary way, the Brain-pan was fawed round about, and afterwards through the fawed bone the dura mater was cut thorough with an Incision-knife; and then taking off the faid Brain-pan, we found, it fluck fo fast to it, that in the taking it off, the X

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the whole falx, together with the glandula pinealis, remained firm to it. Those who do still doubt of the truth thereof, are defired, for their statistaction, to enquire into it after the statistathe statistabetter to confider the operation of *Trepanning*. We shall now add an Observation or two about grievous Wounds of the Head, of which the Patients have been happily cured without the use of the *Trepan*.

One of them is this: An. 1662. I met with two fad cafes near the fame time; one of them was the child of a Brasier upon the New ditch, which had fallen down 18 or 20 steps, and by this fall received a wound in the left fide of the Head, and with it no flight contusion. Being called, I found the child fenflefs, vomiting, and invaded by all the grievous fymptoms that a broken skull is wont to occasion. The other child was in a Celler upon the first Harlemer-fluyfe, which likewife had tumbled down from the top of the flairs to the bottom. Being fent

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fent for fix days after, I found by the tokens, especially the fore contusion, which over-fpread more than half the Brain-pan, and the pain in one particular place, that there was a crack in the skull. Yet I proceeded in the cure of these two children after my ufual method, but with a very watchful eye; and, by God's bleffing, I recovered them both; preferibing them a good diet, and making use of the enfuing fomentation :

R. Rad. fænic. Sarsaper. petrosel. an. 31j.

Herb. Beton. m. j.B. Anagallis, rutæ, artemisiæ, an. m. B.

Flor. Melilot. p. iij. Lavend. p.ij. Semin. Cumine 3iij. Fænic. & baccarum bauri an. 3].

Contundantur & coquantur in vino rubro; fiat s. a. Fomentum.

With this the Head was fomented. twice aday; and after the fomentation, this Liniment was used, viz.

R. Ol. Myrtill. Laurini, an 3ij Balfami sulphur. 3j. Mesce, fiat linimentum. X 2

And

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And after that the Head (the hair whereof was all fhaved off) had been warmly anointed with this liniment, we employed this following Plaifter.

R. Ceroti ex cumino 36. Emp. de Betonic. 313. Misce, f. Emplastrum.

By the ufe of which fanative means the fymptoms daily diminifhed, care being had, that thefe children might conftantly have their bodies foluble; by all which they were well cured. I could recite divers other Examples; but thefe, I think, may fuffice for a pattern, withing they may without prejudice be followed.

As to the defcription of the Cerotum ex cumino, that was left me by the highly experienced Mr. Jacob van Roonbuyle, Chirurgion at the Hague, who in his time used it in all contufions, doing thereby very confiderable cures in cases of dangerous wounds. Which therefore, for the publick good, I shall here communicate, viz.

R. Ce-

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R. Ceræ flavæ, Emplastri diacalcitheos an. lib, S.

Ol. Myrtıllorum, Rofaceum, an. ziij. Laurini zij. Baccæ Myrtillorum zij.

Seminis Cumini subtilissime triti zvj. Fiat s. a. Emplastrum,

wher to be giv

OBSERV. III. Of a Wound in the Head.

inded place of the head to be i

1662. the 10th Decemb. being 1. fent for to come to Martin Jacobson a Woodmonger, who, having rid upon the Ice after the manner of this Countrey, had unawares been run down by a fled, fo that he fell back fo forcibly, lighting with his head on fome thing that was uneven, that from that concussion of the brain, accompanied with a fracture of the skull, he immediatly became speech- and fenfless, and was taken with a continued vomiting. Being brought home, where I came, I found him yet vomi-X 2 ting,

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ting, with little fenfe, feverifh, the hindpart of the head fwollen and bruifed, and great pain in one place; fo that thefe and other fymptoms fuffered me not to doubt of a fracture of the skull. Whereupon I took from him, by way of revulfion, 8 ounces of blood from his right arm, and ordered an emollient Clyfter to be given him, and the wounded place of the head to be fomented twice a day with the following fomentation, warmed and applied with woollen rags;

B. Herb. Beton. m. js. Artem. Abynth. Lauri, an, m. j. Flor. Melilot. Lavend. an. m. s. Seminis cumini zj. Concif. ac, contus. coquantur in vino rubro, ad lib. s. colatum; detur pro fomento.

The fomentation being done, the pained place was anointed with this liniment,

R. Ol. Myrtil. 38. Rosarum, castorei, an. 3ij. Misce, fiat linimentum.

The next day we joyned with us the Phyfitian Arnoldus Tholinx, who having

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having very ferupuloufly enquired into the circumftances of this cafe, and the prefent condition of the Patient, ordered to go on in the method begun, adding thereunto a Purging fyrup, and the day after, a convenient Apofeeme, and fome other neceffary medicaments.

The 7th day the Patient began to complain of great pain about his Ears, which was accompanied with a defluxion on his Eyes, and a lofs of his smell. The 8th. day he loft his Hearing. The 10th. day he was fomewhat better, and the Fever began to abate. The 12th. day he discharged fome coagulated blood by ftool; whereupon the pain of his Ears grew lefs, and the running of his Eyes ceafed, and his Hearing began to return to him. Afterwards, by continuing the fomentation and anointing, the fwelling and the pain of the head abated from day to day; but then he complained of intolerable pain in the Backbone, which obliged us to apply the fomentation and anointing to that X 4 part

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part alfo: By which means the pain funk lower and lower, unto the very os coccygis. After which he felt most pain in his Legs; but this alfo ceased by little and little; fo that he was totally recovered, his fwelling only excepted.

complain of great pain about his Ears,

fmell. The 8rb. day he loft his Hear-

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THE

Dblerbations. 173 THE SECOND OBSERVATION Of the Cutting of Hare-mouths;

In which Is related the Manner of the Operation, and Cure,

Addressed to the Experienced ROGIER ROGIERSE BEERENART Chirurgion at Amsterdam.

Dear Collegue and Brother,

The intimate friendship that is betwixt us engageth me to impart unto you fomething confiderable of this argument, both for the exercife and improvement of the Art; hoping that by your learned and pradical knowledg I may receive back again fomething that may further inftruct me in this matter. Now, touching this Cafe, though it be not unknown to most Chirurgions, yet many of them are unskilful in the right method

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thod and manner of proceeding therein; of which we fee many fuch fad inflances, that would make one prefer the not cutting of children at all, than occasion by wrong operations fuch marks, as render them hideous to be look'd upon.

Touching therefore the Cutting of Haremouths, every Chirurgion is not fit to perform it, for divers reasons, (wherein Jobannes Tagaultius confents with me in Generali fua & compendiaria Chirurgorum institutione :) 1. There is required a steddy hand, without shaking, for the execution of flie work 2. There needs an affured confidence to cut an innocent child with a knife. 3. There is requisite a good fight, and a ready judgment, whereby, as foon as the incifion under the Nofe is done, care may be taken, that the flux of blood may not caufe any impediment for accomplifting the operation. 4. The operator must have a good refolution not to be put out by the child's crying; as alfo good skill to judg, how much each lin

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lip must lose, and which of them is to lose most; lastly, to order it so, that the stitches of the cut-pieces of the lips may be exactly adjusted together.

And 'tis true, that this Operation is to be performed with difpatch; yet fo as to remember the faying, Sat Cito, fi fat tuto. And to be flort, there is required in it a Lions heart, and a Ladres hand; or, according to Job. Tagaultius,

In Chirurgo sit audax & intrepidus animus in rebus tutis ac necessaris: In dubiis vero ac periculosis, non admodum præceps.

You, Sir, that have feen me perform many of these operations, can bear me witness, I have not miscarried in any of them, for which I thank God; of which I now intend to deliver some Observations.

The Upper-lip being cloven, it is a great deformity, fometimes laying open one tooth, fometimes two or three teeth of the upper Jaw. And fometimes it is double-cleft, there remaining

176 Dedico-Chirurgical maining only a piece between both, which, unless it be callous, needs not to be taken away; but it falls out fometimes, that it hath fuch a communication with the upper Jaw, as to be alfo, together with the palat of the mouth, parted altogether in two, and then to hinder the child's fucking; one fide of the upper Jaw-bone standing out with a tooth or two, more than the other, without the lips: So that, when a part of the upper lip is deformed fo as to refemble the upper lip of an Hare, we call it an Hares-mouth, an Hare having always the upper lip cloven.

This deformity is caufed by fome fright and a ftrong fancy; which puts me in mind of a Chimney-fweepers wife, dwelling at the Hague, and big with child, who feeing a begger at her door, fhewing her his Arm without a hand, was thereby fo furprifed and frighten'd, that falling, a few days after, in labour, was deliver'd of a child with a curtail'd arm, and wanting a hand. And Fabritius Hildanus in his 5th Obfervation of the 3d Part, relates

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177 relates another Example of a monstrous birth, brought forth by the force of the mothers imagination without a prepuce, and that only becaufe the had heard with a furprise a full and punctual narrative of the Jewish circumcifion.

And generally, that Frights and ftrong imaginations of a woman with child are the principal Caufes of Monstrous births, daily Experience teaches; and there are few Monfters born but the caufes of them may be referred to those lately affigned. Yet we would not have this understood with an exclusion of the more hidden and Divine caufe, whofe operations many times surpasse our Understanding. As for Example, when it happens, that a woman, being very near her time, is furprifed and frighted by the fight of a man or woman wanting a limb, to wit, a hand, arm, or legg, and is 8 or 10 days after deliver'd of a child wanting fuch a limb; this certainly is very wonderfull, the furprisal and fright having happen'd 10

178 Bedico-Chirurgical to near the time of her delivery : For, what becomes of the limb that's gone, or who can give an account of the manner how this extirpation is made? On the contrary, when it comes to pass, that from the faid caufes a limb is added, who can understand, that that can be done without a new Conception? Though an account may be given of the Monstrosities that are made in the first formation, viz. either from the deficiency or redundancy of the feed, or also from frights and terrors supervening upon the first conception. If the time between the first conception and the entire formation of the fætus (I mean, as to the shaping of what is effential to all the parts thereof,) be confider'd, 'tis the common opinion, that that is effected in 42 dayes; though Hippocrates makes a diffinction in reference to the fex, affigning 30 days to the entire formation of a male, and 40 or 42 to that of a female; others affigning 45 days for the longest time, and 30 for the shortest. Mean**D**blerbations. 179 Mean-time Laurentius 1. 8. de formatione fætus, vita et partu, faith very well : Quis primus fit conformationis dies, quis item ultimus, folus qui fætum plasmavit novit Creator. So that, in the received opinion, the Fruit must be perfect or imperfect in that time; if the feed be deficient the fætus is imperfect; if superabounding, it may have 3 or 4 Arms or legs, or the like.

But to return to the operation of cutting Haremouths, we must first take notice, that it is more dangerous to perform it upon grown than young perfons; though the dextrous and experienced M. Peter Rogiertse have performed it with good fuccefs upon a person of 28 years of age. And the younger fuch Haremouthed childern are cutt, the better it is, even whilft they are yet fucking; unlefs they be fick or weak : Mean-time there are those that cannot fuck, viz. fuch as have their upper jaw cleft with the palat of the mouth. Add, that this operation is more conveniently

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ently and more fafely performed in Summer then in Winter, in regard that warmth conduces to the fpeedier healing up of the wounds : And upon the fame account, 'tis better in Spring than in Autumn.

Now, Sir, as to the manner of the operation, and the Cure, I shall here relate unto you two confiderable cafes of *Hare-mouths* which had both of them the upper jaw split : other cafes need not to be here difcoursed of, as being common enough, and of no difficult operation and cure.

I fay then, that the Operator is above all to obferve the flate of the Patients health, and whether he be well fed, and of a good conflitution; or whether he be fubject to any Scorbutical or other difeafes, efpecially if it be a full-grown perfon. He is alfo to confider well, whether the defect be curable or not, before he proceed to the operation, that is to fay, whether the lofs of part of the lip can be helped by the Re-union. And this you are to be fatisfied of before you

Dblerbations. 181 you undertake the work : For, fometimes the upper jaw is with the lip parted in two, and there is a wide gap; though fometimes in this very cafe a Cure is made : And if in this cafe the remaining part betwixt both lips be become callous, it must then be taken away, otherwife not. In the operation it self, you are to chuse a very clear and lightfom place, and to put the child that is to be cut, in the lap of a difcreet perfon, and to have a man standing behind, to hold the head of the Patient conveniently, whofe hands must be carefully tied up with fwaths to keep them from striving. Care also is to be had, that the child do not sleep 10 or 12 hours immediately preceding the operation, that fo it may be the better difposed to sleep presently after it. Further, you will do well to have ready a glass of wine or some other good cordial for the child to take in case it should faint upon the loss of blood. There must be also at hand a bason of luke-warm water_

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water, a couple of fpunges, fome wieks, compresses and bands. Then take a sharp incision-knife, with which the flesh of the cheek lying under the upper lip, as also the flesh of the nose, may be conveniently fever'd.

And with a pair of sharp scillers you are dextroufly and nimbly to cut away the edges of the gaping lips, as far as is neceffary. You ought also to have ready a small pair of cutting pincers, if need be to take away some prominent part of the jaw-bone when 'tis cleft in two: As also 5 or 6 filver needles, well wrought and three-angled, thredded with red carmefyn stitch-filk, therewith to stitch and unite it together as foon as the needle is passed through. So then, the lips must be immediately stitch'd close together with three needles, of which the first must pass through as close under the nose as is possible; for by the means of this flitch there is least danger of bursting out, first perforating with the needle that lip which

Oblervations. 183 which gapes widest. The next needle is to pais through the most fleshy part of the gaping lips; where the fervant that at the incifion was holding the head, must with his hands prefs the cheeks from behind forwards to the nofe, that fo the stitching and fastening may be the more commodioufly performed, and there may also be the less danger of breaking out. The third stitch is to be made in the lowermost part of the lips; where care is to be had, that both the fides may be taken as even as is -possible. The needle must pass through at least a great straws bredth from the edge of the gaping lip, to prevent laceration and burfting out; and it must come out at the opposite fide with the fame bredth. Each thread alfo flicking in each needle is to be laid about it once or twice, to fee whether the flitches come right and even ; which is to be done as nimbly as you can, moiftning the filk in luke-warm wine with a foft spunge, and laying the stitches very close by means of the filken-Y 2

184 Dedico=Chirurgical filken-thread, turn'd too and tro about the needle. Which done, you are forthwith, b means of your cutting pincers, to nip off very close the extant points of your needles, that they may not stand out, least they should cause some ulceration. After this, you are to moiften the flitches with fome Balfamick oil, by which means they may serve for wieks, laying on them a flat wiek, likewife moiftned in the fame oil. And fastning on the fides of the cheeks a flicking and wellanointed plaister in the form of a collar stuffed with wooll, you are thereby to prefs the cheeks towards the nose, and then bind it over with a comprefs, a little cut out about the nofe: Providing alfo on one fide of the cap a fmall band, thereby to fecure, as hath been done by the plaister, the aforefaid flitches. Care is to be had mean-while, that the Patient may have liberty to fetch his breath, and to fuffer no ftoppage of his noftrils; giving him from time to time fome fyrup of violets to lick with a feather, and

Oblerbations. 185

and very nourifhing meat to eat. And in cafe the child have loft much blood in the operation, and be thereby much weaken'd, then the matter is to be recommended to a skilful Phyfitian.

The next day the dreffing is not to be medled with, except the band be remov'd out of its place. But the day after, it may be renew'd, taking care, that there be one to hold the Patients head again, and forcibly prefs the cheeks forwards, as was done at the incision ; at the fame time loofening the middle-stitch half way, and the other stitches from some of their turns, and veering them; whereby all ulceration will be prevented, which otherwife by the streight lying of the threads might be occasioned : At which time also you ought with your pincers to nip off very clear what may appear extant of the needles. The third time, the middle-ftitch may be removed, and the other stitches are to be more veered 3 or 4 turns, and the drefs to be ordered as before. The fourth Y 3

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fourth time, if you perceive the place, where the middle-flitch hath been made, to gape no more, nor the undermost, by the use of the syrup, than you are to draw out the uppermoft stitch under the nose, and to take again great heed thereof. And if the fourth time you do not much apprehend the childs crying and frowardnefs, you are then also to draw out that, or at least loofen it more; for I never let the stitches lie till the 6th. time, unlefs the children be very troublesome and froward. The flitches then being taken out, the part is prefently to be dreffed again as before. By which method, I blefs God, I have cured many in four or five days.

I fhall only admonifh all young Chirurgions, to view and to confider well this deformity before they meddle with the cure of it, leaft they make it worfe than it was. And here they ought principally to take care, that the edges of the Lips may be duly and fufficiently taken away, fo that nothing may remain behind, and they, being

Oblerbations. 187

being still bloody, be immediately stitched together. But you need not let any blood run out, as Jacques Guillemeau would have it in the fecond Chapter of his Chymical Operations. For, methinks, there runs out blood enough against our wills. But to give you more clearly my method of performing this operation, I shall set down a couple of Observations and Cases, wherein I my self have practifed the same.

OBSERV. I.

Of a Hare-mouth in a young Child , fuccesfully cured.

A N. 1661, the learned Abraham Slingerland, Chirurgion at the Hugue, gave me a vifit, and advifed with me about his child, born with a very unfightly Hares-mouth, asking me, whether I had any hopes of curing ? I fatisfied him by proposing to him the manner thercof, and na-Y 4 ming

188 Dedico=Chirurgical

ming divers I had cut in this City. The occasion of his Childs deformity was, that his wife being with child was frighten'd with the out-cry of a fellow, wont to come from Scheveling, and to cry about the streets of the Hague, Prawns. His wife was brought to bed, some weeks after, of this Child, that had its upper Lip gaping in the middle a fingers breadth, up to the partition of the Nofe; the left fide of the Nofe and Lip being with great deformity drawn in and awry; and the upper Jaw-bone together with the Palat-bone split in two, which made the great tooth and the upper Lip stand out, to the horror of every beholder. Now, having got ready all the means for the operation and cure, (described above,) we first implored the bleffing of Almighty God, and then proceeded, in the prefence of the Famous Francis vander Schagen, and the Learned Matthaus Sladus, Phyfitians of this Town, and of M. Rogier Rogierse, and M. Afia Wyma, and other Chirurgi-

Oblerbatious: 189

rurgions, after this manner: I put the Child in anothers lap, to hold it, and there was another to hold its head; and then immediately using my little cutting-knife, I listed up the left lip, and thrust my knife an inches breadth into it, with one cut cutting through the flesh of the cheek at once toward the Nofe, and prefently the other fide likewife, fo that the Nofe was feparated from the fubjacent other parts, whereby I got fufficient room. Asd having with my cutting pincers (made for it on purpose) taken away the prominent Jawbone, preffing the lips together by the cheeks, as much as was poffible, and caufing them to be kept together by him that held the head; I went on in making the lips raw by steady and sharp sciffers, presently introducing through the bloody lips the upper needle, as close to the nofe as I could, and with the other two needles stitching the lips evenly together. This done, I dried away the blood of the Childs mouth, and washed

190 Medico-Chirurgical washed it out with a little wine, giving it fomewhat to drink, and letting it breath a little. Then having duly closed the stitches, and laid them about with the filk in the needle, moistned with the balsom-oyl, I put upon it a flat wieck, fecuring the drefs with plaisters and small bands, to leave the nostrils free. This done, I gave the Child a cordial, and fome nourishing meat, as also some Syrup of Violets to lick, and fo to anoint as 'twere the wound from beneath. The next day nothing was done as to the drefs; but the third day, the middle needle was fuccesfully taken out, and the part dreffed as before. The fifth day the lowermost needle was taken out; and the fixth day the uppermost was taken out; and the tenth day from the operation, the Child was freed from its drefs and plaifters, and went away in a good conditiand with the ot.no

The words of the Mother, parting from me, were thefe; I came to you with a Monster, and now, God be praised

Dblerbations. 191

praised, I go home with a well-shaped Child, Farewel.

OBSERV. II.

Of a Hare-mouth, happily cured in a Child.

N. 1662, I cut the Child of Chri-A stopher Groenwegen, Reader at Uytwick, in the Country of Altena, whofe deformity was every way alike to that of the former Child; which alfo was the reafon of his coming to me, having understood and feen I had fo fuccesfully cured the Child at the Hague. This Child was fourteen weeks old, but could not fuck. The operation was performed in the prefence of the Physitian Paulus Barbette, and M. Rogier Rogierse Bernaart. Having taken away the most prominent part of the upper Jaw-bone, and parted with the knife the fubjacent Cheekflesh, to fit it for our purpose, and having further with my sciffers made

192 Dedico-Chirurgical made the lips raw, I flitched them together with three filver-needles, nipping off the extant ends of these needles with my cutting pincers. The third day I took away the middlemost needle, and dress'd the wound as above related; and the fifth day I took out with good fuccess the two other needles, so that the child was well the fifth day, which was the fifteenth week of the Childs age, and the tenth day it was carried home in perfect health.

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Defervations. AN OBSERVATION Of a WOUNDED NERVE And Its CURE.

Written to the experienced Hubert Cock, Chirurgion at Woerden.

Worthy Friend,

I Could not omit to communicate to you this following Obfervation; viz. In the year 1662, the 14th of July, I treated a certain woman, called Elizabeth Adrians, living upon the Bickers Ifland, who fweeping the houfe, and taking up in her hand what fhe had fwept together, fqueezed a pin, hidden amongft it, into her hand, whereby a Nerve or Fibre was fo wounded, that thereupon follow'd a Fever, great pain, and an inflammation and fwelling of the whole hand; which accidents, part-

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194 Bedico-Chirurgical ly by her own knowledg, partly by some remedies of unskilful friends she endeavoured to cure. But all proving fucceflefs, I was at length called to her, which was the fourth day after those accidents had befallen her. Being come to her, and having been inform'd of the cafe, I prefently dreffed her hand with fome topical remedies, and withal prefcribed her a good diet, as is necessary in all wounds in the nerves; not omitting purgative and other medicines, yet forbearing venxfection, because she was but thin and lean of body. I applied my felf to remove the pain, and to abate the inflammation and the afflux of humors. by widening the wound in the hand, and thereby, and by other means, to give vent to the humors rnnning thither. For, the worft thing that can happer to a Fiber or Nerve, is the smallest wound, viz. a simple puncture by some sharp instrument, or by glass, or fish-bones, or the like, by reason of its great sensibleness, whereupon prefently fome grievous accidents enfue; and

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and this being the cafe here, the humors, there gathered together, had bred a fwelling about the middle-joint of the little-finger, whole muscle was also wounded. This we endeavoured to mend, but in vain. Wherefore affifting nature by fuppurating remedies, when the place affected broke, I found, the ligaments had been fo pierced thorough, as to rot off and fcparate, yet without corruption of the bone; and the middle-joint, upon the removal of the drefs, fell out of it felf: Which notwithstanding, the finger, after the wound was healed up, remained competently stiff, to my wonder, nor found the Patient any hindrance in working with that hand; by Nature's goodness the Nerves and Fibres drawing the outermost joint towards the lowermoft.

ANSWER.

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ANSWER.

To the foregoing letter; containing a Relation of a Cure performed upon a young woman, out of whose thigh a great piece of the bone was separated, without shortning her leg, or hindring the motion of her going.

Written to the Experienced Henry van Roonhuyse, Chirurgion in Ordinary to the City of Amsterdam.

Worthy Friend,

My manifold bufineffes will, I Mhope, be fome excufe for my tardy anfwer to your laft letter, in which you were pleafed to impart unto me that odd cafe of a pin run into a nerve of a hand, whereupon, by the afflux of humors, and a fwelling caufed thereby, the ligaments of the little finger, between the outer and **Obscriptions.** 197 and lowermost joint, were so rotted away, as that the middlemost joint was fallen out; and yet the Patient, upon the healing of the wound, not hindred in her working; Nature's bounty having been such, as to make the Nerves and Fibres of the furthermost joint draw towards the lowermost.

We have here in this Town alfo a woman, whofe middle-joint of the middle-finger was fo bruifed between a door, as to be broken to pieces, and, after that all the pieces were in time come out, the fore-joint, by the fhrinking of the nerves and fibres was fo conveniently drawn towards the hindmoft, that fhe hath been able for many years to do her work. But to let this pafs, I fhall communicate to you a cafe, not long fince happen'd, which feems more wonderful to me.

An. 1652. in the month of July, I was sent for to come to the house of Lambert Pontsen of Zeyst, a Corn-Merchant, to dress a daughter of his, Gysseltie Lamberts, of eight years of

age,

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age, that had always been very healthy and found, as, by God's bleffing, the is now again. Coming to her, I found her upon her bed, having her left leg fo fwelled from her hip to her foot, that her thigh was as thick as her middle, and fo all over, that in divers weeks it could not be feen where the fuperfluous humour did abound, and yet the colour of it was fo natural, as that of her other thigh. Now, according to the received practice, the weakest part is first of all to be fuccoured. Wherefore her leg being more burthen'd with ferous humors, than troubled with outward pain, I endeavoured first of all to difcharge her body, as well as I could, from those humors, hoping, that her leg would thereupon be disburthened likewife, as it also did. For the whole became confiderably thinner, especially about the knee, and an hands-bredth above it, yet most on the outfide. Which feeing, I concluded, that there must be the root, whence had proceeded all the reft; and accordingly I endeavour'd by

Dblerbations. 199 by the fittest Discutient means to discharge the outward parts : Whereupon not only the knee grew thinner, but also the ligaments, and confequently the moving parts were fo dried and corroborated, that she was able about the tenth week to go without a stick; which gave her great hopes of recovering her perfect health in a fhort time; but from that time I began to perceive a little speck, appearing at first of the bigness of a field-bean, and of the colour usually feen in veins burft. This broke in the 13th. week, yet letting out nothing but an aqueous matter. The opening was three inches broad about the joint of the knee, on the outward fide, between the two muscles, called fle-Etens tibiam biceps, and quadrigeminorum quartus; though about this place I can hardly count them for perfect muscles, because they do more refemble finews or tendons; which hindred me to make the aperture bigger: Nor could I at first by any means get with my founding instru-7. 2 ment

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ment to the bone; though foon after I lighted upon the way, by the coming out of a little piece of separated bone; which quite deprived me of the hopes of a fhort cure. Having declared unto the Parents and their relations that were prefent this difficulty, they forthwith fent for fome of the most learned Physitians from several of the chiefest Towns here-about; with whom having confulted divers times, they agreed almost all in this, that there was no hope of fully curing this accident, unless the place were cut up as far as was neceffary, to the very bone, that fo the place corrupted might be cauterifed, by this means to dry up the putrifying humidity. I acknowledged indeed, that this would be a very good means to prevent the fur. ther progrefs of the bones corruption; but forafmuch as this young woman was fleshy and pretty fat, the epening must have been made, by conjecture, about three inches deep, before I could have come to the bone; and this would have made the cauterifation

Oblerbations. 201 rifation difficult, as the opening would have been dangerous; forafmuch as the afore-named parts could not have been passed without wounding them. And let the cauterization be made never fo warily, if there be fuch parts as fibres and nerves, ferving for motion, though they be not touch'd, yet they will by the approached cautery be dried, and fhrink, and fo lofe the perfection of motion. To this I added, that after all was done to the outer-fide what could be done, yet we were not fure, that the fhin-bone was not corrupted within, where the cutting was yet lefs fecure than without, by reason of the great veins and arteries. These my considerations were well received by the Learned Dr. Ifbrand Diemerbroeck, Professor of Phyfick at Utrecht; and it appeared foon after, that they were not unnecessary : For there also broke out a hole on the in-fide, out of which prefently came forth little bones; whereupon we all were glad, that we had not taken the former way. Mean-time the aforefaid Y 2

202 Medico-Chirurgical faid Phyfitian prefcribed the Patient a good diet, and enjoyned me to take care of the external Chirurgical part; as I also did for about a year together, during which time there islued many little bones; yet I could not cure her all that while, though I employed many applications. The Parents, being very eager to have her cured, did resolve to make use of other Phyfitians and Chirurgions, difmissing me, in hopes to light upon fome other perfon, that might recover their daughter without cutting or burning; and accordingly they enquired after able perfons in most of our Towns, and in Brabant also; but all in vain : For, during the fpace of near nine years, this isluing of little pieces of bone continued. And forafmuch as in fuch cafes as thefe all forts of people, the ignorant as well as the skilful, are forward to advife, the Parents did fo far confider me, though their daughter was not then my Patient, as to fend for me to hear my judgment of the respective advices

Dblerbations.

vices that were given them; declaring, that if it should still be necessary to proceed to cutting and burning, no other person should be employed therein but I: Which was done at last in the tenth year, after this manner;

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After I had in the two last years now and then founded the part, I found at the very first that I felt the bone, which at first was three inches deep; but in the last year of all the bone was got to near outward, that nothing but the skin remained over it. And some times I used things to make the openning wider : fo that I got-in feveral pincers, with which I held fast the bone; yet without being able to move it any more than if it had been the whole bone; fo firmly, was it wedged-in between the callus grown within the ambient fibres and the skin, which had thruft it outwards, whereby it came to pafs, that she was not able in 18 months to bend her legg. She growning at length impatient, and unwilling thus to fit and fleep any longer with a leg always Z 4

204 Pedico=Chirurgical alvays firetcht out at length, which was accompanied with great pain, fo that some times she could not go at all; fhe did, with her Parents and Friends consent and approbation, fend for me again, and made use of me as her constant Chirurgion, as I had been before. She herfelf was very refolute, declaring, that she would patiently endure all what should be thought necessary and ft to be done. Whereupon I did first of all widen the opening by tumifying remedies, fo that in a few days I became fatisfied about the manner of the polition of the fragment, though I could not yet come to know how big it was, which latter circumstance obliged me to make the aperture wider; to which the Patient readily confented upon my affuring her, it might be done without danger. This then being done as was required. I then needed no more to make use of any founding instrument, but could then fatisfy my felf by my fingers, which informed me, that, where-

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whereas I and many others had fancied it to be a great flat flice of bone, I now found it to be a round piece coming out of the whole Shinbone. Whereupon I introduced into the hollow of the bone one cheek of a very ftrong pair of pincers, as deep as I could ; the other I fastened without, and fo having squeesed them together, I tried whether I could turn it, which I found I could do : And then I prayed her to have patience for a little while and to be couragious. promifing her to give fhortly into her own hands the fragment of the bone that had fo long troubled her ; which foon after I did accordingly (God be praifed,) with little effusion of blood. The faid fragment was as thick and long as appears in Fig.4; which I have caufed to be drawn with great exactness, as to the thickness, roundnefs, hollownefs and length, representing also the parts eaten out, of the corrupted bone. Mean time I keep by me the piece it felf, to shew to the Curious.

Now

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Now, though the bleeding was not much, yet it hindred me from feeling frome thing elfe ; which made me fill up the whole cavity quite full with fhavings of rags, to drefs it the better. The next day having open'd it and taken out all, I felt with my fingers, how all things were within, and I then found two fmall pieces of bone more, which the day before had been broken off from the great piece ; which could perfectly be feen, by joyning them to it : And thefe were the two laft bits that came forth.

Here it may be faid, that, feeing this Fragment, taken out, hath on both ends fuch points and tags, there muft needs be fuch others in the thigh-bone, corresponding to them; and why were they not feit too, there being fuch room for it. I answer, that 'twas not so here, because nature had filled up those vacuities with a *callus* so perfectly, as if never any bone had come forth thence, and both ends were so neatly joined together by

Oblerbations. 207 by natures contrivance, that Art could not mend it. So that She hath here effected both the separation, and the union; which is the more to be wondred at, because the Patient had lain little a-bed during the greatest part of the time that the hath been afflicted. with this accident; only when a little piece of bone got loofe, that pricked her; then the was constrained to keep her felf quiet. She went up and down, as well as fhe could, to the very day that I took out the great fragment, coming out of her bedchamber into the room where we were, which was more lightfome. The faid fragment being taken out, she remained fitting upon a cushion, and towards evening went from her chair to her bed. What applications were further made to render the cure compleat, I shall, for brevities sake, pass by. As to her prefent condition, the is, by the goodness of God, so well, that she can firetch out and draw-in her leg, and can walk on it as well as on the other, for two or three hours together;

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ther; and both legs are of the fame length and thickness, so as that hardly any difference can be perceived between them. I am,

Woerden the 28th. Octob. 1662.

SIR, Your friend to Serve you HUBERTUS COCK.

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TOOK OIL

Advertisement.

THe Remedies that are required to discharge the Gout, are now to be had of Moses Pitt, at the Angel in St. Paul's Churchyard, Bookseller, mith a paper to instruct those that are defirous to learn the way of Burning with Moxa, and to shew the manner thereof; in case there be any body that shall think it not clearly enough delivered in this Book.

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