An inaugural dissertation, upon the three following subjects : I. An attempt to prove, that the lues venerea was not introduced into Europe from America : II. An experimental inquiry into the modus operandi of mercury, in curing the lues venerea : III. Experimental proofs that the lues venerea, and gonorrhoea, are two distinct forms of disease / by James Tongue.

GPO 16—67244-1

INAUGURAL DISSERTATION, &c.

ERRATA.

.....

Page 3, line 5 from the bottom, for *facully* read faculty.
—— 11, —— 12 from the top, for *nagivators* read navigators.
—— 20, —— 9 from the top, for *virgæ* read virga.
—— 21, —— 1 ————, — *Argetata* read Argelata.
—— 21, —— 8 ————, — *præpuctium* read præputium.
—— 27, —— 5 ————, — *expensive* read expreſſive
—— 27, —— 10 ————, — *haw* read hawe.
—— 30, —— 7 from the bottom, for *dictur* read dicitur.
—— 31, —— 15 from the top, for *oxpresses* read expreſſes.
—— 31, —— 20 ————, — *teræ* read terræ.
—— 32, —— 3 from the bottom, after Oxford inſert the word concerning.
—— 47, —— 6 from the top, for *treat it as it* read treat as it.
—— 52, —— 5 from the bottom, for *salavia* read ſaliva.
—— 55, —— 10 ————, — *gastic* read gaſtric.
—— 70, —— 2 from the top, for *that the dogs* read that dogs.

Wherever *Sauchez* occurs read Sanchez.

AN

INAUGURAL DISSERTATION,

UPON THE

THREE FOLLOWING SUBJECTS:

I.

AN ATTEMPT TO PROVE, THAT THE LUES VENEREA WAS NOT INTRODUCED INTO EUROPE FROM AMERICA.

II.

AN EXPERIMENTAL INQUIRY INTO THE MODUS OPERANDI OF MERCURY, IN CURING THE LUES VENEREA.

III.

EXPERIMENTAL PROOFS THAT THE LUES VENEREA, AND GONORRHOEA, ARE TWO DISTINCT FORMS OF DISEASE.

By JAMES TONGUE,

OF MARYLAND;

Honorary Member of the Philadelphia Medical and Chemical Societies.

"No man ought to surrender his own judgment to any mere *authority*, however respectable."

Priestley on phlogiston.

PHILADELPHIA:

PRINTED FOR THE AUTHOR.

1801.

AN

INAUGURAL DISSERTATION,

FOR

THE DEGREE

OF

DOCTOR OF MEDICINE;

SUBMITTED TO THE EXAMINATION

OF

THE REV. JOHN EWING, S. S. T. P. PROVOST,

THE

TRUSTEES AND MEDICAL FACULLY

OF

The University of Pennsylvania.

ON THE

EIGHTH DAY OF JUNE, 1801.

TO

BENJAMIN RUSH, M. D.

Professor of the Institutes of Medicine, and Clinical Practice,

IN THE UNIVERSITY OF PENNSYLVANIA;

MUCH RESPECTED SIR,

WERE the ſubjects which I have choſen for the inaugural fruits of my ſtudy in medicine, treated in a manner ſuitable to their importance, I could then, with ſome degree of pleaſure, offer them to your peruſal.

Before departing from you, under whom I have ſtudied, and from whom I have received my principles in medicine ;—I beg you to accept this diſſertation, as a ſmall but ſincere tribute of gratitude and eſteem, for the many advantages and attentions received during the ſtudies of

Your Affectionate Friend,

And Obliged Pupil,

JAMES TONGUE.

TO

BENJAMIN SMITH BARTON, M. D.

Professor of Materia Medica, Natural History, and Botany,

IN

THE UNIVERSITY OF PENNSYLVANIA,

A MAN

EMINENTLY DISTINGUISHED

FOR HIS GENIUS AND LEARNING,

This Diſſertation

Is reſpectfully inſcribed, as

A ſmall Teſtimony of Eſteem

And Gratitude,

By his ſincere Friend,

JAMES TONGUE.

INTRODUCTION.

IT will be thought preſumptious that the author, a mere tyro in the ſcience of medicine, ſhould attempt to write upon three ſubjects, which have, for centuries, agitated the medical world.

If there be no information afforded in the following pages, he will, at leaſt here, be on a footing with many of his ſuperiors.

It would be impoſſible, in the compaſs of a diſcourſe like the preſent, to enter minutely into each of the different ſubjects embraced in this diſſertation. It would require years inſtead of the few weeks which are allowed to the candidate, to write a theſis; and a mind pregnant with information, inſtead of one which can only be in its infancy.

The firſt part of this diſſertation; muſt neceſſarily conſiſt in a collection of ſuch facts, as he has been able to procure.

Moſt people, have ſuch an averſion from being experimented upon, particularly with the venereal virus, that it has prevented the ſecond part of this diſſertation from being treated in ſuch an ample manner as could be wiſhed.

I cannot forbear mentioning here, that the experiments contained in the following pages, were made with the greateſt care, and related with the ſtricteſt fidelity; yet I am ſenſible, many inaccuracies mayhave eſcaped; which thoſe will moſt readily excuſe, who have experienced the difficulties incident to ſuch reſearches.

I.

AN ATTEMPT TO PROVE, THAT THE LUES VENEREA WAS NOT INTRODUCED INTO EUROPE FROM AMERICA.

The origin of the diſeaſe, now called lues venerea, has been a ſubject of much debate among moſt medical writers. The greateſt part of theſe inform us, that it was brought by Columbus and his companions from the Weſt Indies, between the years 1494, and 1496, *merely* becauſe it happened to rage with great violence in Europe, ſhortly after the return of thoſe nagivators from their firſt voyage—like the yellow fever, no perſon willing to give it birth, fruitleſsly ſeek for its origin in ſhips and ſailors, that have arrived from foreign countries.

The proofs of thoſe, who have given this origin to the venereal diſeaſe, are all equivocal, and much greater counter demonſtrations muſt be adduced, before the ſcale will preponderate on that ſide of the queſtion; though now it appears to be the moſt prevalent opinion, as ſcarcely a book on this ſubject can be opened, but we are informed that this diſeaſe was introduced into Europe from America.

To find out the preciſe time of its firſt appearance, would perhaps be as fruitleſs as the ſearch after the philoſopher's ſtone. The limits of this diſſertation will not admit me to enter into ſo minute an inveſtigation of its origin, as could be wiſhed.

We will offer here a few remarks upon one of the oldeſt books we have in exiſtance—namely, the Bible. *

It has been ſaid by ſome authors, that "the ſore boils wherein Satan ſmote Job by God's permiſſion, from the ſole of his foot to the crown of his head," was the venereal diſeaſe.

In ch. 20. v. 11. he ſays,—"his bones are full of the ſin of his youth, which ſhall lie down with him in the duſt."

It has been ſaid that the following verſes lead us to believe that David had the ſame diſeaſe. Pſalm 38. v. 3. "There is no ſoundneſs in my fleſh, becauſe of thine anger; neither is there any reſt in my bones, becauſe of my ſin."

* No perſon will think there is the leaſt impropriety in making the following quotations from the bible. The ſame cauſes exiſted then as exiſt now for the production of this diſeaſe; and in thoſe times, other diſeaſes exiſted which were a thouſand times worſe.

V. 5. " My ſores are putrified and corrupted, becauſe of my fooliſhneſs."

V. 7. " For my loins are filled with a loathſome diſeaſe, and there is no ſoundneſs in my fleſh."

It is ſaid in Eccleſiaſticus, ch. 19. v. 3. as follows,—" And he who joineth himſelf to harlots, will be naught. Rottenneſs and worms ſhall inherit him."

The following verſes, we find in the 15th chapter of the book entitled Liviticus, commonly ſaid to be written by Moſes. They are part of a law given by him in order to prevent a diſeaſe from ſpreading, which appears to have been a true gonorrhœa.

" Liviticus ch. 15. v. 2. " The man that hath an *issue of seed* ſhall be unclean."

V. 3. " And then ſhall he be ſubject to this evil, when a filthy humour, at every moment, cleaveth to his fleſh, and gathereth there."

V. 4. " Every bed, on which he ſleepeth, ſhall be unclean, and every place on which he ſitteth."

V. 5. " If any man touch his bed he ſhall waſh his cloathes; and being waſhed with water, he ſhall be unclean until the evening."

V. 6. " If a man ſit where the man had ſitten, he alſo ſhall waſh his cloathes; and

being waſhed with water ſhall be unclean until the evening."

V. 7. " He that toucheth his fleſh, ſhall waſh his cloathes ; and being himſelf waſhed in water ſhall be unclean until the evening."

V. 8. " If ſuch a man caſt his ſpittle upon him that is clean, he ſhall waſh his cloathes ; and being waſhed with water, he ſhall be unclean until the evening."

V. 9. " The ſaddle on which he ſitteth, ſhall be unclean."

V. 10. " And whatſoever has been under him, that has the *issue of seed*, ſhall be unclean until the evening. He that carrieth any of theſe things ſhall waſh his cloathes ; and being waſhed with water he ſhall be unclean until the evening."

V. 11. " Every perſon whom ſuch a one ſhall touch, not having waſhed his hands before, ſhall waſh his cloathes ; and being waſhed in water, he ſhall be unclean until the evening."

V. 12. " If he touch a veſſel of earth it ſhall be broken ; but if a veſſel of wood, it ſhall be waſhed with water."

V. 13. " If he who ſuffereth this *disease* be healed, he ſhall number ſeven days after his cleanſing; and having waſhed his cloathes,

and all his body in living water, he ſhall be clean."

V. 16 " The man from whom the *seed* of *copulation* goeth out, ſhall waſh all his body with water ; and he ſhall be unclean until the evening."

V. 17. The garment or the ſkin that he weareth ſhall be waſhed with water ; and he ſhall be unclean until the evening.

V. 32. This is the law of him that hath the *issue* of *seed*, and that is defiled by *copulation*."

We ſee that the diſeaſe of the Jews, called the *issue of seed*, as deſcribed in the preceding verſes, was contagious to the greateſt degree, and alſo propagated by *copulation*.

To prove that this was a gonorrhœa, it is only neceſſary to obſerve that this diſeaſe has till very lately been ſuppoſed to conſiſt in a flow of ſemen.* Hence the word gonorrhœa is derived from the Greek words γονη genitura ſemen and ῥεω fluo, i. e. fluxus ſeminis. And upon looking into this part of the Greek bible we find the word γονορῥοια i. e. *seminis genitalis*

* Aſtruc, a late writer defines this diſeaſe to be a diſcharge of ſemen from the uretha.—See his deſcription of it, vol. 1.

profluvium, which is tranſlated in the bible *an issue of seed.*

It is ſaid by one of the prophets, "Fly the perſon afflicted with the *Judham* as you would a lion."

Judham being an Arabian word which ſignifies an inveterate degree of the venereal diſeaſe; cauſed by improper treatment*.

The inhabitants of Indoſtan have, time immemorial, made uſe of the word *Khorah* to ſignify the ſame thing.†

The venereal diſeaſe has been known to the inhabitants of Indoſtan *time immemorial*, by the name of the *Persian fire.*

This diſeaſe has been attributed by them time out of mind to the Perſians, as the Europeans have attributed it to the Americans, the French to the Neapolitans, the Engliſh and Germans to the French, &c. This diſeaſe certainly exiſted among the Greeks and Romans‡.

The diſeaſe to which the Scythians were ſubject according to *Herodotus*, and alſo according to *Hippocrates*,† who have both nam-

* See Aſiatic Reſearches, vol. 2, and Swediaur's maladies ſyphilitiques derniere edition a Paris, 1798. Tom. 1.

† Ib.

‡ Hippocrates wrote 460 and Herodotus 404 years before the chriſtian era.

ed it *morbus fœmininus* (Swediaur ſays)ſeems to have been a true gonorrhœa.* The laſt of theſe authors, (Hippocrates), ſpeaks of defluctions from the private parts, exulcerations, tubercles in the groins, large ſpreading ulcers, abceſſes and ſuppurations, mutilations of the bones and nerves.†

In his book "*de morbis mulierum*" he makes mention of the ſuppuration of the inguinal glands, and he attributes it to the ſuppreſſion of the menſes, which we now know, will not cauſe a ſuppuration of thoſe parts.

Juvenal, in Satyre XI, who wrote in 128, and *Martial*,lib. viii, and ix, who wrote in 100, ſpeak of ulcers in the genital parts, as diſeaſes produced by impure coition.

Plutarch,‡ in his life of Otho, about the middle of the firſt century, ſpeaking of Tigellinus, ſays that he was afflicted with ſeveral diſeaſes, which he had contracted by converſing with lewd women.

In *Pliny* the ſecond, lib. 6, Epiſ. 34, (who wrote in 97) we find a diſeaſe of the falling off, of the genital parts, which was regarded

* Voyez. Swediaur, derniere edition, a Paris, 1798.

† He ſpeaks of theſe in his epidemic diſeaſes.

‡ Vol. 8. p. 303.

as incurable, "Maritus ex diutino morbo cir-
" ca velenda corporis ulceribus putreſcebat."

Diascorides, (who wrote in 50) recommends remedies againſt rhagades, condylomata, maligna ulcera, vulvæ tubercula, genitalium et vulvae exulcerationes."

Sextus Placitus, papyrienſis parabil. medicament. ſcript. antiq. ſpeaks of remedies againſt "bubones ſeu tumores ad inguina, carbunculos in veretro, ficos in ano, rhagades, phymata, callos in veretro."

Galenus (opera per I. Cornar.) who wrote in 200, ſpeaks of phymoſis, paraphymoſis, rhagades, condylomata, bubones, phymata purulenta, acrochordones, &c.

Bishop Palladius, who lived in the fifth century, under the reign of Theodoſius, junr. relates the following curious anecdote of a hermit named *Heron*, who had always led a very virtuous life.

From the Greek of *Palladius*, it has been tranſlated into French, from which I have tranſlated it into English.

" At laſt *Heron*, ſeized by the influence of evil genius, and tranſported as if by a devouring fire, could not remain confined to his cell. He ſetsout all at once for Alexandria: the deſign of God called him there, and ac-

cording to the proverb, drove a nail by the other.*

"Indeed he fell into the forgetfulneſs of his duties, that were to lead him, in ſpite of him, to his ſafety. He frequented theatres, horſe-races, and ſpent his life in taverns. From the exceſs of good cheer and wine, he fell into the abuſe of women, and the moſt dirty libertinage. Having reſolved to ſin, he had an habitual commerce with a dancer of pantomimes, and declared to her the evil, (or wound) that tormented him. In the mean while there came upon the gland of his genital parts, a carbuncle or anthrax (probably what we would call a chancre). The diſeaſe grew ſo bad in the ſpace of ſix months, that his genital parts were mortified and fell off." This is a ſufficiency of the anecdote for our purpoſe, and every body will think with me that it was a caſe of confirmed ſyphilis.

Celsus, (who wrote in the firſt century), in his book 4. ch. 31, ſpeaks of "nimia profuſio ſeminis ſine venere, et ſine nocturnis imaginibus. That is to ſay, a true gonorrhœa, which became at laſt fatal, in cauſing by degrees a

* That is to say, pride, by the humiliation of his fall.

conſumption. And in book 6. ch. 18, he ſpeaks of ulcers in the genital parts.

Guillemus de Saliceto, placentimus chirurg. lib. 1, ch. 42. (who wrote 223 years before the diſcovery of America) ſpeaks "De apoſtemate in inguinibus. Hæc agritudo vocatur bubo vel dragoncelli inguinis." And he ſays in the ſame ſentence, "et aliquando accidit homini in virgæ corruptio propter concubitum cum fœdâ muliere, aut ab aliam cauſam." Again, in ch. 48, he ſpeaks, "de puſtulis albis vel rubris, et de milio et de corruptionibus circa preputium, propter coitum cum fœda muliere, aut cum meretrice, aut ab aliâ cauſâ.

Guido de Cauliaco Gabalanus, doctor of phyſick and ſurgeon in the univerſity of Montpelier, chirurg. mag. (who wrote 133 years before the diſcovery of America) ſpeaks "de califactione et fœtiditate in virgâ propter decubitum cum muliere fœda."

Valescus de Tarenta, profeſſor of Montpelier, lib. 6. (Who wrote 93 years before the diſcovery of America,) ſpeaks. "De ulceribus et puſtulis virga." Again he ſays, "puſtulae virgae fiunt ſiquis coeat cum famina habente ulcus in matrice, quae contagio, ſitate ſua inficet virgam et in ea facit ulcus.

Petrus de Argetata of Bologna, Doctor in arts and phyſic, in his chirurg. lib· 2. who wrote 23 years before the diſcovery of America, ſpeaks ; "puſtulis quae adveniunt virgae propter converſationem cum foedâ muliere, quae albae ſunt vel rubra· Ex materiâ venenoſa, (ſays he) quae retinetur inter praeputium et pellem virgae cauſantur iſtae puſtrelae, &c."

Lanfranc of Milan, Doctor of phyſic who wrote in 1290· *Benedictus Gordonius*, who wrote in 1300, profeſſor of phyſic at Montpelier ; and *John* of *Gaddesden* an Engliſh ſurgeon who wrote in 1301, all ſpeak of the ſame affections of the genital parts as the preceeding writers·

The following is taken from a M· S· in Lincoln-College in Oxford * (written 63 years before the diſcovery of America)·

" Novi enim ego Thomas Gaſcoigne, † licet indignus, ſacrae Theologiae Doctor, qui hac ſcripſi et collegi, diverſos viros qui mortui fuerunt ex putrefactione membrorum ſuorum genitalium et corporis ſui ; quæ conup-

* See Beckett on the antiquity of the venerial diſeaſe, in the philoſophical tranſactions abridged by Eames and Martin, vol. 7.

† Chancellor of Oxford.

tio et putrefactio, ut ipsi dixerunt, causata fuit per exercitium copulæ carnalis cum mulieribus. Magnus enim dux in Anglia, scil. I de Gaunt, * mortuus-est ex tali putrefactione membrorum genitalium et corporis sui, causatâ per frequentionem mulierum, magnus enim fornicator fuit, ut in toto regno Angliæ divulgabatur, et ante mortem suam, jacens sic infirmus in lecto idem eandem putrefactionem regi Angliæ Ricardo secundo ostendit, cum idem eundem ducem in suâ infirmitate visitavit; et dixit mihi qui ista novit unus fidelis sacrae Theologiæ Baccalaureus. Willus etiam longe vir maturæ aetatis et civitate Londonii, mortuus est ex tali putrefactione membrorum suorum genitalium et corporis sui, causatâ per copulam carnalem cum mulieribus, ut ipsemet plures confessus est anti mortem suam, cum manu suâ propriâ eleemosynas distribuit, ut ego novi, Anno Domini 1430.

It is evident from what has been said, that there existed, long before the discovery of America, diseases of the genitals, similar from their description to the venereal disease, which was communicated in the same way

† John, Duke of Lancaster, called by the English, John de Gaunt.

that this diſeaſe is—and which certainly was the ſame diſeaſe.

The following quotation, is taken from the ſtatutes for the regulation of the public ſtews, eſtabliſhed at Avignon in 1347, by Jane 1ſt, queen of both the Sicilies and counteſs of Provence, (written 145 years before the diſcovery of America.)

Article 4.*

"The queen commands, that on every Saturday the women in the houſe ſingly be examined by the abbeſs and a ſurgeon appointed for that purpoſe by the directors, and if any of 'em has contracted any illneſs by their whoreing, that they be ſeparated from the reſt, and not ſuffered to proſtitute themſelves, for fear the youth, who converſe with 'em, ſhould catch their diſtempers."

In the chronicle of Cardamus we read that Ladiſlas king of Naples died in the year 1414, in conſequence of an infection in the genital parts communicated by his miſtreſs.*

It is ſaid that Alphonſus, likewiſe king of Naples, died in 1458 of an inveterate gonorrhœa; theſe words are related of him,—"anxi-

* Vide Aſtruc upon the Venereal, vol. i.

† See Sanchez.

us deceſſit, morbo inſuper immundo et pertinaci, involuntario ſcilicet inſenſibilique *ſpermatis fluxu*.*"

The venereal diſeaſe, appears to have exiſted in England, many centuries before the diſcovery of America, under the name of brenning or burning.

Mr. Beckett † informs us that ſtews were allowed to be kept on the bank ſide in Southwark under the juriſdiction of the biſhop of Wincheſter. He ſays there were anciently 18 of thoſe ſtews, but in the reign of Henry VII, they were reduced to twelve.

He has examined the records that relate to the regulation of theſe ſtews—The following are ſome extracts from them. "We find that as early as the year 1162 divers conſtitutions relating to the lordſhip of Wincheſter (being confined by the king) were to be kept for *ever* according to the old cuſtom that had been *time out of mind.*"

After mentioning ſeveral rules we find the following—"No ſtewholder to keep any woman that hath the perilous infirmity of burning."

* See Sanchez.

† See philoſophical tranſactions abridged by Jones, vol. 5, p. 381.

It appears that this brenning or burning had exiſted at a much more early period, as theſe regulations were only a renewal of ſuch as had been before eſtabliſhed time out of mind.

But to confirm this further—" I find, (ſays Mr. Becket) that in the cuſtody of the Biſhop of Wincheſter, whoſe palace was ſituated on the bank-ſide near the *stews*, was a book written upon vellum, the title of which runs thus, " Here begynne the ordinances, rules and cuſtoms, as well for the ſalvation of mannes lif, as for to aſchewe many miſchiefs and inconvenients that dayly be like there for to fall owte, to be rightfully kept, and due precaution of them to be done unto any perſonne within the ſame."

One of the articles begins thus—" De his qui cuſtodiunt mulieres habentes nefandam infirmitatem." It goes on then " That no ſtew-holder keep noo woman within his hous that hath any ſyckneſſe of *brenning*, but that ſhe be put owte unto the peyne of make it a fyne unto the Lord of a hundred ſheleyllings."

Mr. Beckett informs us this was taken from the original manuſcript which was preſerved in the biſhops court, ſuppoſed to be written about the year 1430.

John Arden Eſq. * who was one of the ſurgeons to king Richard II, and alſo to king Henry the IV, defines this brenning or burning to be a certain inward heat and excoriation of the urethra, which definition is ſufficient to inform us that it was a true gonorrhoea.

The ſame author (John Arden Eſq.) who wrote about 114 years before the diſcovery of America, ſpeaking of the cure for this burning, has the following words. "Contra incendium. Item contra incendium virgæ virilis interius ex calore et excoriatione, fiat talis ſyringia, (i. e. injectio) lenitiva. Accipe lac mulieris maſcularum nutrientis, et parum zuccarum, oleum violæ et ptiſanæ, quibus commixtis per ſyringam infundatur, et ſi predictis admiſcueris lac amigdalarum melior erit medicina.†

Mr. Buckett ‡ informs us that in an old manuſcript he has in his poſſeſſion, written about 1390, is a receipt for brenning of the pyntyl yat men clepe ye, ape galee. Galee being an old Engliſh word for a running ſore.

And in another manuſcript written about 50 years after is a receipt by a woman.

* See philo. trans. abrid. vol. 5, p. 383.

† Ibid. vol. 7.

‡ Ib.

It is certain that the diſeaſe, from the deſcription of its ſymptoms as given by the ancients, was often in an inveterate ſtate, for which they appropriated particular names, perhaps more ſignificant and expenſive than thoſe impoſed by modern authors. Thus, for inſtance, buboes in the groin they called dorſers, from their protuberancy or bunching out. And the venereal nodes on their ſhin bones, they called boon or bone haw; which gives us not only a juſt idea of the part diſeaſed, but in what manner it was affected; Hawe being an old Engliſh word for a ſwelling.*

We have ſeen the word brenning or burning mentioned as early as the year 1162, and uſed at different periods up to the time of the diſcovery of America; we will now proceed to prove it has been uſed by many writers ſince that time, to ſignify the venereal diſeaſe.

Andrew Boord, a Doctor of phyſic and Romiſh prieſt, in his book, entitled the breviary of health, printed in 1546, ſpeaks very particularly of this ſort of burning. One of his chapters begin as follows: "The 19th chapter, doth ſhew of the burning of an harlotte," and he ſays "That if a man be burnt

* See Phil. Tranſ. Abridg. vol. 7.

with an harlotte, and do meddle with another woman within a day, he ſhall burn the woman that he ſhall meddle withal." In his 82nd chapter, he ſpeaks of two ſorts of burning, the one by fire, and the other by a woman through carnal copulation, and refers the perſon that is burnt of an harlotte, to another chapter of his advice what to do, " if he get a dorſer or two."

Mr. Becket* ſays, in a manuſcript I have, of the vocation of John Ball, to the biſhopric of Oſſory in Ireland, written by himſelf, he ſpeaks of *Doctor Hugh Weston*, (who was dean of Windſor in 1556, but deprived by cardinal Pool for adultery) as follows, " At this day is lecherous *Weston*, who is more practiſed in the art of breech-burning than all the whores of the ſtews." Again, ſpeaking of the ſame perſon, he ſays, " He not long ago brent a beggar in St. Botolph's pariſh." The ſame author, ſays of him elſewhere; " He has been ſore bitten with a Wincheſter gooſe, and was not yet healed thereof," which was a common phraſe for the pox at that time, becauſe the ſtews were under the juriſdiction of the biſhop of Wincheſter. And we ſee, that they have been

* See Philoſo. Tranſ.

under his juriſdiction as early as the year 1162.

Simon Fiſh, a zealous promoter of the reformation, in the reign of Henry the VII. in his ſupplication of beggars, preſented to the king in 1530, ſays as follows; "Theſe be they, (ſpeaking of the Romiſh prieſts) that corrupt the whole generation of mankind in one realm, that catch the pocks of one woman and bear it to another; that be *burnt* with one woman and bear it to another."

William Bullien a phyſician in the reign of queen Elizabeth, in a book publiſhed, called the Bulwark of Defence, printed in 1553, brings in ſickneſs, demanding of health what he would do with a diſeaſe called the French pockes, health anſwers, "he would not that any ſhould fiſh for this diſeaſe; or to be bold when is bitten, to think thereby to be helped, but rather to eſchewe the cauſe of this infirmity, and filthy rotten burning of harlots."

What has been related, ſufficiently proves that the venereal diſeaſe exiſted in England, many centuries before the diſcovery of America, under the name of burning or brenning.

Delphini ſpeaks of having ſeen a man infected by the venereal complaint in 1491.*

Pintor, before he went to Rome, met with an old man, aged ſixty, in the ſame condition, at Valencia, in Spain. This happened before the year 1493.

J. Zacharius Platner, in his opuſcula, ſays, "Hoc extra dubium videtur, longè antiquam India occidua inventa eſt, aegritudines fuiſſe obſervatas, quibus nunc venerei opprimuntur.†

In a letter written by *Petrus Martyr*, in April 1488, we find the following words, *Petri Martyris Anglerii* mediolanenſis epiſt. 68. Ario Luſitano, Graecas litteras ſalmanticae profitenti, valetudinario.

In peculiarem te noſtræ tempeſtatis morbum, qui appellatione Hiſpana Bubarum dictur (ab Italis *morbus Gallicus*, medicorum Elephantiam alii, alii aliter appellant), incidiſſe præcipitem, libero ad me ſcribis pede. Lugubri autem elego calamitatem, aerumnaſque gemis tuas, articulorum impedimentum, internodiorum hebitudinem, junctturarum omnium dolores intenſos eſſe proclamas, ulce-

* See Sauchez. † Ibid.

‡ Voyez Swediaur. Tom. 2. Introduction, p. 16.

rum et oris fœditatem ſuperaddit in promis eloquentia, conquereris, lamentaris deploras, &c.*

If there be no miſtake in the date of this letter (which I dare ſay there is not) it is ſufficient to make every perſon believe that this diſeaſe was not carried from the Weſt Indies into Europe.

Helius Capreoli de rebus Brixianorum, lib. 12, written in 1492, (before Columbus arrived in Europe from America) after having in common with Pintor and Delphini, recited the calamities which they had juſt experienced, and which ſtill continued to exiſt, oxpreſſes himſelf in theſe words—" Ab inguine mulieribus, à glande viris ſœpius incepit; mox per univerſum corpus vagabatur: ſenſêre id malum præſertim incontinentes, contactu tamen inficiebat quoque vicinos, audivimus omnem ferè teræ orbem invaſiſſe genus id contagionis *morbum galli-*

* Sanchez takes notice of this letter, in his treatiſe upon the origin of the venereal diſeaſe, and it is dated in his book April 5th, 1489, he thinks is moſt probable it was dated ſome years after, but he is not certain, as Swediaur has written a good many years ſince the publication of Sauchez's treatiſe, and muſt have ſeen it; we may conclude, that he would not have quoted this letter, without being certain of its date.

cum, † nuncupatum quem hæc tenus, ut elephantiaſin ante pompeium magnum et aute Tiberium Claudium mentagram, Italia nun quam creditur eſſe paſſa."

From the preceding pages it is evident, that the genital parts of both ſexes, at all times, and perhaps in almoſt all countries, have been ſubject to the ſame diſeaſes as thoſe produced at preſent by the venereal or ſyphilitic virus.

The gonorrhœa of the Jews, the ulcers of the genital parts, the mortification of the penis, the ſwelling and ſuppuration of the inguinal glands, the different excoriations, the rhagades, &c. all deſcribed by the ancient Greek and latin authors. Its exiſtence in Indoſtan time immemorial by the name of *persian fire*. The carbuncles and falling off of the penis of Heron in the fifth century at Alexandria. The different venerial affections of the genital parts produced " propter decubitum cum muliere foedâ"—the caſes related by the chancellor of Oxford I. de Gaunt and Wills ; the different regulation of the public ſtews &c. are ſatisfactory

† It is notorious that venereal diſeaſe went by the name of Morbus Gallicus, for centuries after the diſcovery of America.

proofs of the antiquity of this diſeaſe. We will now proceed to ſay a few words more, in order to prove that this diſeaſe was not introduced into Europe from America.

Goncalo d'Oviedo, was the firſt and only author in thoſe times, (about the end of the fifteenth century) who aſſerted that the venereal diſeaſe was brought from the iſland of St. Domingo, during the ſecond voyage of Columbus, at his return, on the 8th of June, 1496. In his firſt voyage, d'Oviedo has not ſpoken of the venereal diſeaſe.* D'Oviedo was not a phyſician, and his authority, of conſequence, is of very little importance in deciding this queſtion. We are induced to believe that his aſcribing this origin to the venereal diſeaſe was altogether conjectural from the following ſentence.

D'Oviedo, qui, au rapport de Fallope, s'étoit infecté a Naples, fut aſſez ingénieux pour *conjecturer* que ſon mal venant des Indes occidentales, il trouveroit auſſi aux Indes le plus puiſſant ſpécifique ou la meilleure recette."†

It ſeems by this that the proofs, if they may be called ſo, of D'Oviedo are mere con-

* See Sauchez.

† Voyez recherches philoſophiques, ſur les Americains, par M. de Paw. tome premier. p. 17.

jectures. It is said that he discovered the guaiacum by which he was cured.

M. de Paw,* speaking of the origin of this disease has the following words. "Ce qui prouve, sans replique, que la peste Vénérienne est née en Amérique, c'est la quantité de remedes auxquels les peuples de ces contrées avoient eu recours pour en retarder les progres extrêmes: ils usoient de plus de soixant simples differentes, que le danger pressant les avoit forcés à connoître."

Upon such trifling and frivolous assertions do they attempt to prove that this disease was introduced into Europe from America. If we may be allowed to reason in the same way as M. de Paw, has done, this disease ought to have originated in that country where there exists its only antidote, namely mercury.

The venereal disease certainly did not exist among the aborigenes of America.

Professor Barton, has informed me, whose information on this subject is superior to any writer, that the Indians constantly say, that the venereal disease was introduced among them by the whites, and that they cannot cure the disease; but when afflicted with it,

* Voyez recherches philosophiques, sur les Americains, par M. de Paw. tom. premier. p. 17.

always, if poſſible, have recourſe to the whites, in order to be cured.

Petrus Pintor, who wrote a book in 1500, entitled "*De Morbo Fœdo et Ocultis his Temporibus Affligenti &c.*" ſays, this diſeaſe (meaning ſyphilis) originated in all the world at the ſame time, and aſcribes its origin to the influence of the ſtars, &c.—Is it poſſible that if the diſeaſe had been brought from the Weſt Indies, he would not have known it, and aſcribed it to that ſource rather than to the influence of the ſtars? Even allowing him to be ſuperſtitious, would he not have taken notice of opinions on this ſubject contrary to his own?*

Pintor, in the fourth chapter of his work, entitled "*Aggregator Sententiarum*," ſhows that the venereal diſeaſe exiſted in Italy eight days after the return of Columbus into Spain, from his firſt American voyage. He makes the following obſervation: "Talis Autem Epidemia in Urbe Romana Contigit, Anno 1493, menſe martii, poſt introitum ſolis in primum minutum Arietis."

Now the firſt return into Spain of Columbus, from St. Domingo, was on the 13th of March, 1493.

* See Sauchez.

Is it poſſible, that the venereal diſeaſe, in the ſpace of eight days, ſhould have been communicated from the coaſt of Spain, to Rome?

If this diſeaſe had been brought from America, would ſuch a variety of cauſes in thoſe times, (about the end of the fifteenth century) been aſſigned for its origin?—"As the fatal influence of the ſtars*."—"The baneful conjunction of the planets as Jupiter, Mercury, &c."—"The indiſpoſition of the air."—"From eating human fleſh."—"Lying with diſeaſed beaſts;" and a variety of others too tedious to mention.

Each of thoſe opinions, of its origin, is given by different authors and written ſhortly after the diſcovery of America—had there indeed been any poſſibility of this diſeaſe having been brought from the Weſt-Indies, would all thoſe authors have aſcribed it to ſuch viſionary cauſes as they have.

Aſtruc has taken much pains to prove that this diſeaſe was introduced into Europe from St. Domingo. He ſays, † that Columbus arrived in Cadiz from St. Domingo in

* See Aſtruc, on the venereal, vol. 1.

† See his book on the venereal, vol. 1. ch. 9.

1496, with two ſhips, on board of which there were two hundred ſoldiers infected with the *venereal disease*.

D'Oviedo, who has aſcribed the origin of this diſeaſe to the ſame ſource as Aſtruc, would certainly have availed himſelf of this fact if it were the caſe. He (Oviedo) has taken notice of the diſeaſed ſtate of Columbus's ſoldiers, and mentions that the "Indians * in conſequence of the ill treatment they received from the Spaniards, would not ſow the Indian corn, which was their only nouriſhment. A dreadful famine was the conſequence of this obſtinancy. The Spaniards to prevent their periſhing through hunger, were obliged to eat inſects of every deſcription; and theſe depraved aliments together with the extreme humidity of the climate, induced a general ſickneſs. In this ſtate, Columbus left St. Domingo, on the 10th of March, 1496, on his return to Spain, having on board the two ſhips under his command, two hundred and twenty-five ſick ſoldiers. D'Oviedo does not ſay a word of the venereal diſeaſe in this place; he confines himſelf ſimply to the above ſickneſs, as the following

* See Sauchez.

extract will ſhew—"The half of the crew periſhed, at ſea through hunger. The iſland was covered with the bodies of dead Indians, the ſtench of which was ſo great and peſtilential, as to diſeaſe both natives and Spaniards*."

It appears certain that the 200 ſoldiers, who Aſtruc ſaid were infected with the venereal diſeaſe, muſt have been diſeaſed from famine, and the peſtilence, as mentioned above.

If this diſeaſe had exiſted among the inhabitants of America, would it not have been mentioned by ſome of the numerous hiſtorians who have written upon this country; which we do not find to be the caſe.

The greateſt proof, (if I may ſo call it), that they have in aſcribing the origin of this diſeaſe to America, is, that the guaiacum is a native of the Weſt-Indies. This every body will allow is no proof at all.

The facts which we have related in the preceding pages, to prove that the venereal diſeaſe was not introduced into Europe from America, are ſo poſitive, that the moſt ignorant ſceptic cannot refuſe his aſſent.

* See Sauchez.

It is really ſtrange to ſee the inconſiſtency of the authors who have written upon this ſubject, nearly all of them ſay that the venereal diſeaſe was firſt diſcovered among the Indians; and *still* it is ſaid, that this diſeaſe was inflicted upon us, by the Supreme Being as a puniſhment for the unlawful gratification of our venereal appetites. It is univerſally acknowledged that the venereal propenſities among the Indians are in a very feeble ſtate.

Now, is it preſumable, that the Supreme Being, would inflict a diſeaſe upon a poor virtuous ſet of people, for the unlawful gratification of an appetite, which they ſcarcely poſſeſs?

Error is never conſiſtent with itſelf.

Before entering upon the modus operandi of mercury in the cure of the venereal diſeaſe; it will be neceſſary to make a few obſervations upon the venereal virus.

In thoſe ſubſtances, where it is impoſſible to know their nature by analyſis or ſeparation of their component parts; the only means we have to purſue, is to ſtudy ſcrupulouſly their effects, to compare them with thoſe with which we are beſt acquainted, to remark all their analogies, and to draw all the poſſible concluſions.

We have no correct knowledge of the venereal poiſon. We only know its effects, and that it is a morbid ſecretion.

It is generally ſaid that this diſeaſe was inflicted upon us by the Supreme Being, as a puniſhment for the unlawful indulgence of our venereal appetite. This is as foreign from truth, as it is unjuſt to our Maker. God has nothing to do with inflicting diſeaſes upon us. (With much reverence would I ſpeak it.) They are all the production of our careleſſneſs.

Does God cauſe a yellow fever, or is it cauſed by our negligence, in not timely removing the putrefying ſubſtances from our ſtreets? Does God cauſe a plurify or conſumption, or is it the effect of not accommodating our dreſs to the different changes in the atmoſphere?

I would rather ſuppoſe, the venereal diſeaſe was cauſed by copulating too frequently, thereby ſtimulating the vagina to ſuch a degree, as to make it take on an action capable of ſecreting this poiſon.

We know that when a ſtimulus is applied to any part, diſproportioned to its excitability, that it will cauſe a morbid ſecretion. This is ſufficient to account for the production of

the diſeaſe, without having recourſe to ſuch a ſuperſtitious, and arbitrary explanation.

The venereal poiſon when once formed, is taken into the blood-veſſels, and conveyed by this means to the different parts, which we ſee affected with this diſeaſe; acting by its ſtimulating quality upon thoſe, and in this manner producing the venereal affections, which we ſee in different parts of the body.

There are facts, which prove, beyond all kind of controverſy, that this poiſon is taken into the blood-veſſels.

An infected father, has communicated this diſeaſe to the fœtus, by the ſemen during a venereal act, the genital parts being in a ſtate of perfect health. As a proof of this I beg leave to make the following curious quotations.

"Un dragon de la garde du roi d'Angleterre étoit affecté d'un ulcére ſyphilitique dans la george, qui réſiſta longtems au mercure, pendant le traitment il cohabita avec ſa femme, qui n'a jamais eu accun mal ſyphilitique, et qui eſt encore eu parfaite ſanté. L'enfant qui fut le fruit de ce coït fut attaqué, quelques ſemaines après la naiſance, d'un ulcere ſyphilitique, á la george, dans le même endroit

ou le père avoit le ſien. J'ai vu le père et le garçon, ils ſont maintenant tous les deux parfaitment guéris.*"

" Je ſuis informé qu'il y a actuellement une famille règnante en Europe, dont tous les enfans ſont nés avec le germe vérolique dans leur corps, et dont aucun a ſurvécu juſqu'à ce qu'on ſe décidât à la fin d'adminiſtrer le mercure à l'animal qui fourniſſoit le lait pour la nourriture du dernier né.†"

Theſe are poſitive facts, that the venereal poiſon as well as mercury are taken into the circulation.

There are ſeveral caſes related of the diſeaſe being communicated by tranſplanting teeth from apparently ſound perſons. ‡

Beſides theſe, there are numerous and well eſtabliſhed facts, of ſmall-pox being communicated to the *fœtus in utero*, from the mother labouring under this diſeaſe. And may not this be the reaſon, why ſome perſons cannot have the ſmall-pox communicated to them after their birth.

Children have been born with ſmall pox, who have received it in conſequence of their

* Voyez Swediaur. Tom. 2. p. 10.

† Ib.

‡ See Foot on the venereal, 4to p. 472.

mothers labouring under the ſame diſeaſe, a ſhort time before their birth, and the matter obtained from the puſtules of the new-born children, has communicated the diſeaſe.*

This is ſufficient to ſhew that poiſonous ſubſtances are taken into the blood-veſſels, and conveyed by them to different parts of the body.†

An ingenious opinion has been given upon the action of the venereal poiſon by a Dr. Barthez‡ upwards of twenty years ago. He ſuppoſes that a morbific action, ſimilar to that excited by the ſyphilitic virus upon the genital parts, is produced in other parts, (as the throat) ſimply by ſympathy, without the virus being immediately applied; (and that mercury cures this diſeaſe by exciting a new or different action, in conſequence of which the diſeaſe is cured or ſuſpended.)

* See Foot, on the venereal, quarto, p. 468.

† Voyez nouveaux elemens de la ſcience de l'homme. Montpellier 1778, and Swediaur. Tom. 2.

‡ Mr. John Hunter has publiſhed this opinion as his own; whether it really belongs to him or to Dr. Barthez, the candid and unprejudiced reader will pleaſe to determine.

For ſympathy to exiſt any where but between minds, is a phœnomenon truly aſtoniſhing!

If this theory were true, the ſympathetic action ought certainly to exiſt in the throat, always while the genitals parts are affected; but this is rarely, if ever, the caſe.

According to this theory, the pains in the bones, the venereal nodes, &c. all ought to exiſt when the genital parts are moſt affected; but theſe affections we never ſee take place, until the diſeaſe has exiſted ſeveral months, or even years; and almoſt always when the genital parts are perfectly cured, or at leaſt, the diſeaſe has entirely diſappeared from them. If this theory were true, I would aſk, why we never ſee venereal ulcers firſt originating in the throat, in the mamma, or in other parts of the body, produce by ſympathy venereal affections in the genital parts; whereas, if this were the caſe, theſe affections ought uniformly to take place? Sympathy is always reciprocal. On the contrary, we ſee the different venereal affections never are ſo.

Is it poſſible that this poiſon ſhould act only by exciting a ſympathetic action, between the genital parts and the ſkin, the

roots of the hair, the throat, and the *bones*, while ſome other parts (which every body would think more capable of taking on a ſympathetic action), ſhould remain entirely unaffected by this diſeaſe?

I would aſk why, after having deſtroyed the venereal virus at its ſource; after having cured the original venereal ulcers, we ſhould ſtill ſee ſyphilitic affections in other parts of the body?

We have ſeen poſitive proofs that the poiſons of ſyphilis and ſmall-pox, are taken into the blood-veſſels, which is ſufficient to explain why different parts of the body are affected with this diſeaſe.

Nature never uſes two different ways when her work can be effected by one. My preceptor, Dr. Ruſh, has taught us to believe that all forms of diſeaſe are produced by the application of a ſtimulus diſproportioned to the excitability of the part, to which it is applied. In ſhort, to believe in the exiſtence of a ſympathetic affection, between the different parts of the body, where there can be no mind, is as erroneous as—

"——The poor Indian whoſe untutored mind,
"Sees God in clouds or hears him in the wind."

II.

AN EXPERIMENTAL INQUIRY INTO THE MODUS OPERANDI OF MERCURY, IN CURING THE LUES VENEREA.

.....

" Ici la faibleſſe de mon entendement m'arrete."

Blanchet.

.....

I AM now entering upon a ſubject, which to treat it as it deſerves, is a taſk truly difficult.

The manner in which mercury acts in curing the venereal diſeaſe, has always been one of the moſt inexplicable phœnomena in the ſcience of medicine.

As difficult as it is, phyſicians have not been deterred from forming many ingenious and beautiful hypothetical theories upon its action, in curing this diſeaſe.

To ſay that mercury cures the venereal diſeaſe by its weight, or by exciting a counter irritation to that produced by the venereal poiſon, or by producing a ſympathetic action; is ſaying no more than would apply to almoſt any article in the materia medica. Would it not be more rational to ſay, that the venereal poiſon affects the lymphatic

ſyſtem, more than any other part of the body; and that in thoſe veſſels it produces morbid excitement, in the ſame manner as any other ſtimulus produces morbid excitement in the blood-veſſels. Now mercury acting upon the lymphatics, deplete in the ſame manner, as the lancet does in removing morbid excitement from the blood-veſſels. In ſhort, mercury is to the lymphatics, what the lancet is to the blood-veſſels.

The following Experiments were made in order to aſcertain the manner in which mercury acts in curing the Venereal Diſeaſe.

First Series of Experiments.

EXPERIMENT 1.

I inoculated my fellow-ſtudent, Mr. Wootton, on the right arm, with ſyphilitic matter, which was obtained from a chancre about an hour before: the part gradually inflamed, and in the ſpace of four days, a complete chancre was formed.

EXPERIMENT 2.

At the ſame time, and with a portion of the ſame ſyphilitic matter, mixed with an equal quantity of calomel, I inoculated Mr. Woot-

ton on the left arm. There was no chancre, nor the leaſt inflammation produced.

At my requeſt, my friend Mr. Lee, made the two following experiments for me.

EXPERIMENT 3.

A girl about 18 years old, was inoculated with a portion of ſmall-pox matter, intimately mixed with calomel. It did not prevent her from having the diſeaſe in the uſual time and form.

EXPERIMENT 4.

Two children were inoculated with the matter of ſmall-pox, mixed with a gummous ſolution of mercury in the proportion of one drachm of quickſilver, and two of gum arabic. They both had the diſeaſe in the uſual time and manner.

EXPERIMENT 5.

I inoculated myſelf with pure venereal matter * mixed with an equal quantity of a ſolution of corroſive ſublimate of the ſtrength of one ſcruple diſſolved in an ounce of water, there was no chancre produced.

* This matter I knew to be pure, as it had produced a chancre in two perſons who were inoculated with it.

It is certain from the preceding experiments, that mercury being mixed with ſmall-pox matter, does not prevent that diſeaſe from being communicated, but by mixing it with venereal matter, ſeems to have a contrary effect.

To aſcertain how ſmall a portion of the ſyphilitic virus would communicate this diſeaſe, and to ſee how ſmall a portion of mercury would prevent it from being taken, I made the two following experiments.

EXPERIMENT 6.

I diſſolved about the ſixth part of a grain of ſyphilitic virus (obtained from a large venereal ulcer) in one ounce of water. I introduced about a fourth of a drop of this ſolution into the right arm. There was no chancre nor the ſmalleſt inflammation produced.

EXPERIMENT 7.

Into the above mentioned ſolution I diſſolved half a grain of corroſive ſublimate, and inoculated the ſame perſon, on the left arm; at the ſame time, and with the ſame quantity as mentioned in the preceding ex-

periment. Neither chancre nor the leaſt inflammation was produced.

EXPERIMENT 8.

I inoculated George Tavener, in the right arm with ſome of the venereal matter, obtained from the ſame chancre as mentioned above. A little inflammation was produced.

EXPERIMENT 9.

At the ſame time, and with ſome of the ſame matter, mixed with tartar emetic, George Tavener was inoculated on the left arm. Reſult the ſame as in the preceding experiment. *

Mr. Shaw, informed me that the perſon upon whom theſe two laſt experiments were per-

* The matter with which theſe four laſt experiments were made, was obtained from a patient who had been labouring under the diſeaſe but a few days, and it appeared to be in a violent ſtage, as in that ſhort time almoſt all the prepuce had ſloughed off. With this matter a great many experiments were made, and in no one caſe did it produce chancre when with or without mercury. This I ſuſpect was owing to the patient's having had applied a poultice to the part affected, which might have made the ſore change its nature, while it was under the influence of the poultice, ſo as not to ſecrete venereal matter, but on the contrary, only pus, as any other common ſore. We can as eaſily conceive that this may take place, as a patient labouring under a free

formed, took at this time, (while the inflammation exiſted) a purge of calomel and jalap. Could this have prevented a chancre from taking place ?

My friends Dr. Arthur, and Alexander May, aſſiſted me in making experiments with ſome of the ſame matter as mentioned in experiments 6, 7, 8, & 9. A chancre was produced in none of their experiments.

In Cullen's materia medica, under the article mercury, we find the following experiment related.

" A phyſician took a quantity of matter from a venereal chancre, and mixing it with a quantity of Plenk's gummy ſolution of mercury, he applied this mixture to a ſound perſon, but could not find that it produced chancre or any other ſyphilitic ſymptom." Dr. Cullen thought it very probable that the gummy ſolution might render the mercury inert.

To ſee if there were any foundation for the Doctor's conjecture, I made the following

flow of ſalavia (in conſequence of taking mercury) ſhould ceaſe upon the remiſſion of a paroxiſm of fever, or upon being ſeized with a diarrhœa. I have frequently ſeen ſalivation alternate with the paroxiſms of fever, at the city hoſpital, in time of the yellow fever of 1799, and twice with a diarrhœa in the ſame place.

EXPERIMENT 10.

I inoculated a perſon with pure venereal matter, mixed with an equal quantity of a ſolution of gum arabic, in the proportion of two drachms of gum arabic to 8 ounces of water. It did not prevent a chancre from being produced.

The following experiment has been made by a Dr. Harriſon.* He took the matter of an ulcer evidently ſyphilitic; and after having triturated it with the gummous oxide of mercury, he tried to inoculate for the ſyphilis with this mixture. The reſult was, that no infection was communicated. While the inoculation made with ſome of the ſame matter, not being mixed, produced an ulcer, and ſyphilitic ſymptoms.

Mr. Bell mentions, that "the matter of venereal ſores, when mixed with water uſed for waſhing them, has in various inſtances been ſwallowed by miſtake; but we have no inſtances of pox being produced by it." †

Mr. Hunter, mentions the caſe of "a gentleman who had chancres which diſcharged

* Voyez Swediaur derniere Edition, Tome 2. p. 245.

† See Bell on the lues venerea.

largely, uſed to waſh the parts in milk and water, in a tea-cup with ſome lint, and generally let the lint lie in the cup with the milk. A little boy in the houſe, ſtole the milk and drank it: but whether or not he ſwallowed the lint, was not known. Nothing happened that could give the leaſt ſuſpicion of his having been affected either locally in the ſtomach, or conſtitutionally."*

Mr. Hunter, alſo mentions, that "a gentleman had a moſt violent gonorrhœa, in which both the inflammation and diſcharge were remarkably great. He had alſo a chordee, which was very troubleſome at night; in order to cool the parts, and keep them clean, he had a baſon of milk by the bed-ſide, in which, when the cordee was troubleſome, he got up and dipped, or waſhed the penis. This operation he frequently repeated in the night. Under ſuch complaints, he allowed a young lady to ſleep with him; her cuſtom was, to have by her bed-ſide, a baſon of tea to drink in the morning before ſhe got up; but unfortunatly for the lady, ſhe drank one morning, the milk inſtead of the tea; but nothing uncommon happened, for at leaſt many months."

* See Hunter on the venereal.

The Abbé Fontana, informs us, that large quantities of the venom of the viper may be taken into the ſtomach without producing any deleterious effects ; but that the ſmalleſt particle of it when taken into the blood veſſels, produce death.

Why poiſons ſhould affect one part of the body, producing the moſt deleterious effects; and the ſame poiſons when applied to other parts of the body much more ſenſible, ſhould remain inert, has never been ſatisfactorily explained.

All ſecreted poiſons appear to be perfectly innocent when taken into the ſtomach ; but when taken into the blood-veſſels, produce diſeaſe or death.

To aſcertain if the gaſtic juice had any power of decompoſing or rendering thoſe poiſons inert, the three following experiments were made.—

EXPERIMENT 11.

I kept faſting 24 hours, a young dog, apparently in good health ; from his ſtomach I obtained a ſmall quantity of gaſtric juice, a portion of which, being intimately mixed with the ſame quantity of pure ſyphiltic matter,

was introduced into the left arm of a young negro lad; it did not prevent a chancre from being formed in the ſpace of three days.

EXPERIMENT 12.

At the ſame time, a ſimilar experiment was performed upon another perſon with the ſame reſult.

EXPERIMENT 13.

A portion of ſmall-pox matter, was intimately mixed with an equal quantity of the gaſtric juice, (as mentioned in the two preceding experiments), with this mixture two children were inoculated both of whom had the ſmall-pox in the uſual manner.*

We ſee by the preceding experiments, that the gaſtric juice, when mixed with the poiſonous ſecretions of ſyphilis and ſmall-pox, has no power of decompoſing or rendering them inert, at leaſt, when out of the ſtomach.

Poiſons not producing their effects when taken into the ſtomach can only be explained upon the principles of Dr. Ruſh.†

* Theſe three laſt experiments were made as ſoon as poſſible after the gaſtric juice was obtained from the ſtomach.

† He has ingeniouſly divided the body into ſeven ſyſtems; upon each of which, all the different kinds of ſtimu-

EXPERIMENT 14.

I inoculated on the right arm a man with venereal matter mixed with an equal quantity of a ſolution of the ſulphate of copper, of the ſtrength of one ſcruple to an ounce of water. It did not prevent a chancre from taking place.

EXPERIMENT 15.

At the ſame time, I inoculated the ſame perſon on the left arm with venereal matter, mixed with an equal quantity of a ſolution of the ſulphate of iron, of the ſtrength of one ſcruple to an ounce of water. It did not prevent a chancre from taking place.

EXPERIMENT 16.

At the ſame time, I inoculated the ſame perſon on the left arm with ſome of the ſame matter mixed with an equal quantity of the oxide of mercury, or precipitate *per ſe*. It prevented a chancre from taking place.

It is evident from the preceding experiments, that when mercury comes in contact

lants appear to have ſome particular action; but are by no means more confined to them than the different *forms* of diſeaſe are.

with the ſyphilitic virus, it either renders it entirely inert, or changes its nature in ſuch a manner, as to render it incapable of producing the venereal diſeaſe.

We can as eaſily conceive this to be the caſe, as that an acid ſhould deſtroy an alkali, or render it inert. We may as readily believe that an elective attraction ſhould take place between the venereal matter and mercury, as between nitric acid and mercury, or any other agents uſed in chemiſtry.

It will not be improper here to take notice of an opinion which has been lately offered to explain the modus operandi of mercury, in the cure of the venereal diſeaſe. The opinion alluded to, is this: that the anti-venereal properties of mercury depend entirely upon the oxigene which is contained in its different preparations. It is ſaid, that mercury is abſorbed and carried into the blood-veſſels, in the form of oxide, or mercurial ſalt, and that the mercury leaves the oxigene and paſſes off under its metalic ſtate, as a foreign body, from the maſs of blood, by perſpiration or other excretions.*

The arguments that have been adduced in ſupport of this opinion, are at firſt ſight

* Voyez Swediaur, tome 2.

plauſible; but they can neither ſtand the teſt of reaſon nor experiment.

It cannot be the oxigene contained in the preparations of mercury, that cure the venereal diſeaſe; becauſe we take into the blood-veſſels more oxigene in a few inſpirations, than is contained in a quantity of the muriate of mercury ſufficient to cure a dozen caſes of ſyphilis. Beſides, the blue pill and mercurial ointment, are not in a ſtate of oxide, as is ſatisfactorily proved by the experiments of Mr. Lee.*

We have ſeen that the poiſons of ſyphilis and ſmall-pox, are taken into the blood-veſſels. The ſame fact is equally true, when applied to mercury.

Our not being able to ſee thoſe ſubſtances in the blood-veſſels, is no proof of their not exiſting in them.

If mercury was not taken into the blood-veſſels, how could it cure venereal ulcers, and other external ſyphilitic affections?

Bodeloque,† informs us that mercury has been detected in the liquor amnii of a woman, who had taken large quantities of it.

* See Medical Repoſitory, vol. 4.

† See Bodeloque's Midwifery, vol. 1.

A piece of gold will be turned white by rubbing it on the body of a perſon that is ſalivated.*

Watches, rings, or other gold jewels, will begin to whiten from the moment that mercury enters the maſs of blood; or when it begins to paſs off by perſpiration.† Now I will thank any perſon to inform me, how this can be effected without mercury being taken into the circulation.

Swediaur‡ informs us, that a guilder in Paris was ſalivated by the fumes of mercury, to ſuch a degree, that his legs and thighs were very much ſwelled, and there came upon them a great many bliſters, which diſcharged an abundance of thick ſerous water, which was kept in pots. After a certain time there was depoſited in them globules of mercury.

We are informed by numerous authorities, and thoſe too the moſt reſpectable, that mercury in its crude ſtate, has been found in different parts of the body.

In order to prove that mercury can exiſt

* See Flack on mercury.

† Voyez Swediaur, tom. 2.

‡ Ibid. tom. 2, p. 369.

in the blood-veſſels, the following experiments were made.

.....

Second Series of Experiments.

.....

EXPERIMENT 1.

I injected into one of the jugular veins of a ſmall dog, one *ounce* of quickſilver:—Immediately after its introduction, the action of the heart and arteries appeared to be increaſed, attended with a reſpiration ſomewhat laborious. He appeared rather dull for two or three days, but gradually recovered his former activity, and appears now to be in perfect health. It is more than three weeks ſince this experiment was performed.

EXPERIMENT 2.

One *ſcruple* of calomel with three drachms of pump water were injected into one of the jugular veins of a puppy. In eleven minutes after it was introduced, he tried ſeveral times to vomit. In forty minutes he diſcharged fœces—in forty-five there was a great ſecretion of ſaliva—in fifty minutes a hæmorrhage from the noſe—and in ſixty he died.*

* My fellow ſtudent, Mr. Rowan, was preſent at the two laſt mentioned experiments.

EXPERIMENT 3.

I injected into one of the jugular veins of a bitch, *half a drachm* of precipitate *per se* with three drachms of pump water. She died in ſixteen minutes. She had no ſecretion of ſaliva.

EXPERIMENT 4.

I injected into one of the jugular veins of a dog, eight grains of calomel, with three drachms of pump water.

In 30 minutes he puked a great deal, and in 60 he diſcharged fœces. There was a very conſiderable ſecretion of ſaliva, which continued until he died. It had not the mercurial fetor. He died in 17 hours.

EXPERIMENT 5.

I injected into one of the jugular veins of a ſmall bitch, four grains of calomel with two drachms of pump water. She died in thirty-ſix hours. There was no ſecretion of ſaliva.

EXPERIMENT 6.

I injected into one of the jugular veins of a dog, two grains of calomel with two drachms of water. It did not produce death. He appeared to ſuffer very little from the experiment. He now appears to be in perfect health.

EXPERIMENT 7.

One grain of calomel, with one drachm of pump water, were injected into one of the jugular veins of a dog. Reſult, the ſame as the preceding experiment.

It is evident from theſe experiments, that both crude mercury and calomel can exiſt in the blood-veſſels.

Is it not preſumable, that much larger quantities of calomel can exiſt in the blood-veſſels, when it is gradually taken into them by the lymphatics,by which means the ſtimulus is more equable, and of conſequence they are not ſo violently ſtimulated as when it is ſuddenly introduced by means of injection.

III.

EXPERIMENTAL PROOFS THAT THE LUES VENEREA, AND GONORRHOEA, ARE TWO DISTINCT FORMS OF DISEASE.

.....

IT is an unfortunate truth, and much to be regretted, that moſt phyſicians, had rather theorize, than experiment.

All opinions in medicine, in order to be laſting, ought to conſiſt of the pure and ſimple expreſſion of facts.

It has been a ſubject of much debate and is ſtill the caſe at preſent, whether the lues venerea and gonorrhœa are one and the ſame, or two diſtinct forms of diſeaſe.

The arguments that have been adduced to prove that the ſyphilis and gonorrhoea are the ſame diſeaſe, are ſo well known, that it would be unneceſſary to introduce them in this place.

The following experiments, compared with the preceding, it is hoped, will be ſufficient to eſtabliſh the difference between the ſecretions of ſyphilis and gonorrhœa.

Third Series of Experiments.

.....

EXPERIMENT 1.

I was inoculated by Dr. Barton, on the right arm with gonorrhœal matter.* There was no inflammation produced.

EXPERIMENT 2.

I was inoculated by Dr. Barton, at the ſame time, and with ſome of the ſame gonorrhoeal matter, mixed intimately with calomel. There was no inflammation produced.

EXPERIMENT 3.

My fellow ſtudent Mr. Rowan, was inoculated in the right arm with ſome of the gonorrhœal matter, as mentioned in the two preceding experiments. There was not the leaſt inflammation produced.

EXPERIMENT 4.

At the ſame time and with ſome of the ſame gonorrhœal matter, mixed with an equal quantity of gum camphor : Mr. Row-

* This matter the Doctor obtained from one of his patients; he thought it was perfectly virulent.

an was inoculated on the right arm. There was no inflammation produced.

EXPERIMENT 5.

I inoculated my friend Mr. Thomſon, on the right arm with gonorrhoeal matter. There was no inflammation produced.

EXPERIMENT 6.

At the ſame time Mr. Thomſon, was inoculated with ſome of the ſame gonorrhoeal matter, mixed with an equal quantity of a gummous ſolution of mercury, of the following proportions. Quickſilver ſixteen grains, gum arabic two ſcruples, water eight ounces. There was no inflammation produced.

EXPERIMENT 7.

I inoculated a ſervant man, on the right arm with gonorrhœal matter juſt obtained from the penis. There was no chancre nor the leaſt inflammation produced.

EXPERIMENT 8.

At the ſame time, I inoculated the ſame perſon, (as mentioned in the preceding experiment) on the left arm with gonorrhœal matter mixed with calomel. There was no chancre nor the ſmalleſt inflammation produced.

EXPERIMENT 9.

Three weeks from the time, when the experiment was performed upon me by Dr. Barton. I was inoculated with ſome freſh gonorrhœal matter on the right fore arm. There was no chancre nor the leaſt inflammation produced.

EXPERIMENT 10.

At the ſame time, and with ſome of the ſame matter mixed intimately with a weak ſolution of nitric acid, I inoculated myſelf on the left fore arm. There was no chancre formed; but ſome little inflammation, cauſed, I ſuppoſe, by the acid, which ſoon went off.

EXPERIMENT 11.

I inoculated Mr. Rowan* on the right fore arm with ſome of the gonorrhoeal matter, as uſed in the two laſt mentioned experiments. There was no inflammation produced.

EXPERIMENT 12.

At the ſame time, and with ſome of the ſame gonorrhoeal matter, as uſed in the preceding experiment, mixed with a weak ſolu-

* This experiment was made two weeks after the third experiment.

tion of lunar cauſtic, I inoculated Mr. Rowan on the left fore arm. There was no inflammation produced.

EXPERIMENT 13.

I inoculated Mr. Thompſon, a ſtudent of medicine, a ſecond time (ten days after the firſt experiment was performed upon him) on the right arm with ſome of the gonorrhoeal matter, as uſed in the preceding experiment. There was no inflammation produced.

EXPERIMENT 14.

At the ſame time I inoculated Mr. Thomſon, on the left arm, with ſome of the ſame gonorrhoeal matter, mixed with gum arabic. There was no inflammation produced.

EXPERIMENT 15.

Two pieces of lint well ſoaked in freſh gonorrhoeal matter, (which I was informed was perfectly virulent) were applied behind the glands penis under the prepuce, and ſuffered to remain two days and a half. There was no chancre, nor the leaſt inflammation produced.

EXPERIMENT 16.

With freſh gonorrœal matter (which I was informed was perfectly virulent) an healthy young man was inoculated on the glands penis, and upon the prepuce. No chancre nor the ſmalleſt inflammation was produced.

It is evident, from comparing theſe experiments, with thoſe made with the venereal virus ; that the two ſecretions are entirely different. We ſaw in the experiments made with the venereal virus, that chancre was produced, in almoſt every caſe, whereas the experiments made with gonorrhoeal matter were incapable of producing even inflammation.

Experiments muſt overthrow the illuſions of opinion, the whims of caprice, and confirm and eſtabliſh the deciſions of nature.

It appears from the following experiments, that the dogs, &c. are not capable of being infected with the veneral disease.

.....

EXPERIMENT 1.

I inoculated a dog, on the under ſide of each ear, with venereal matter; and alſo applied a portion of the ſame matter to each eye. There was not the ſmalleſt inflammation produced, either in his eyes, or on the under ſide of the ears.

EXPERIMENT 2.

I inoculated a cat, with venereal matter, there was no inflammation produced.

EXPERIMENT 3.

A large portion of venereal matter, was diſſolved in two drachms of water, and injected into the vagina of a bitch. It did not produce the diſeaſe.

EXPERIMENT 4.

I inoculated a dog, on the inner ſide of each ear, with gonorrhoeal matter, and alſo applied ſome of the ſame matter to each eye. There was no inflammation produced, either in his eyes or on the under ſide of his ears.

EXPERIMENT 5.

I diſſolved a large portion of gonorrhoeal matter, in water, ſo much ſo, that it was quite turbid; and injected it into the eyes and noſtrils of a cat, apparently in perfect health.

Her eyes appeared inflamed ſoon after; but it went off in two or three hours.

The cat, on which this experiment was made, appears not to have ſuffered the leaſt inconvenience from the experiment.

EXPERIMENT 6.

I inoculated another cat, on the under ſide of each ear, with gonorrhœal matter. There was not the leaſt inflammation produced.

In addition to theſe experiments, Mr. Hunter informs us that " he has repeatedly ſoaked lint in matter from gonorrhoea, chancre, bubo, and introduced it into the vagina of bitches, without producing any effect. I have alſo introduced it into the vagina of aſſes without any effect. I have introduced it under the the prepuce of dogs, without any effect. I have alſo made inciſions, and introduced it under the ſkin, and it has only produced a common ſore. I have made the ſame experiment upon aſſes, with the ſame reſult."*

M. de Paw,† informs us that the dogs, which the Spaniards brought into the different Iſlands, and diſtricts of the new world, were very ſoon ſeized with the venereal diſeaſe. He alſo ſays the dogs of Peru, now-a-days experience the approaches of this diſeaſe.

* See Hunter on the lues venerea.

† Voyez recherches philoſophiques ſur les Americains. Tome premier.

From the experiments made by Mr. Hunter, and myſelf, it is ſatisfactorily proved, that thoſe animals cannot be affected with the venereal diſeaſe; and we muſt believe M. de Paw, is as much miſtaken on this ſubject, as he is concerning the origin of this diſeaſe.

Before cloſing this eſſay, I cannot forbear mentioning that the difficulty of the ſubjects and the time in which they were written, has unavoidably prevented the preceding pages from being handled in ſuch a ſatisfactory manner as could be wiſhed. Thoſe who read to find fault, will not be diſappointed; but thoſe who are more candidly diſpoſed, will at leaſt ſay, that I have attempted to inveſtigate an obſcure part of the ſcience of medicine.

Each of the Profeſſors in the Univerſity of Pennſylvania will pleaſe to accept my thanks for the information I have received from their lectures.

Myformer preceptor, Dr. Beanes, will alſo, pleaſe to accept my beſt reſpects, for the many attentions I have received from him.

I beg leave in this place to return my beſt thanks to Dr. Phyſick for the information I have received from his valuable lectures upon the operative part of ſurgery.

FINIS.