Reprint of two tracts : 1. An essay on gleets. 2. An enquiry into the nature, cause, and cure of a singular disease of the eyes / by Jean Paul Marat ; edited with an introduction by James Blake Bailey.

Contributors

Marat, Jean Paul, 1743-1793. Bailey, James Blake. Francis A. Countway Library of Medicine

Publication/Creation

London : Percival, 1891.

Persistent URL

https://wellcomecollection.org/works/xfzfdh7u

License and attribution

This material has been provided by This material has been provided by the Francis A. Countway Library of Medicine, through the Medical Heritage Library. The original may be consulted at the Francis A. Countway Library of Medicine, Harvard Medical School. where the originals may be consulted. This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection 183 Euston Road London NW1 2BE UK T +44 (0)20 7611 8722 E library@wellcomecollection.org https://wellcomecollection.org

Reprint of

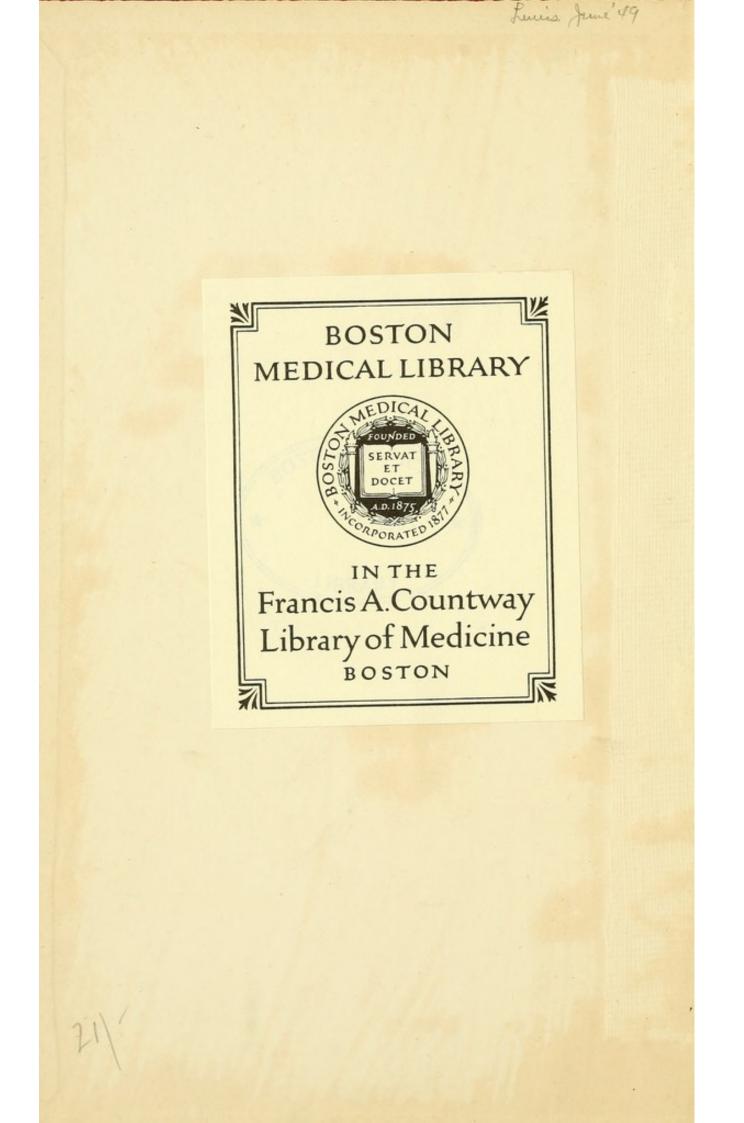
Two Medical Tracts

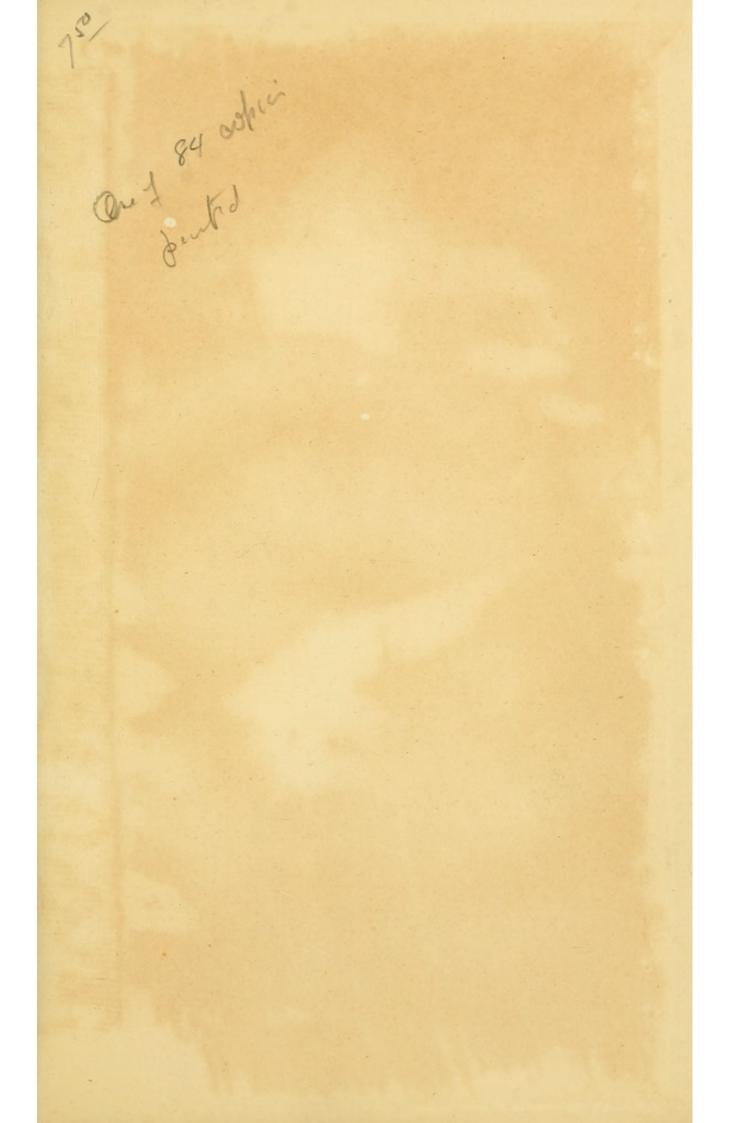
Jean Paul Marat

BY

(1775-76.)









Digitized by the Internet Archive in 2011 with funding from Open Knowledge Commons and Harvard Medical School

http://www.archive.org/details/reprintoftwotrac00mara

This Edition consists of 84 copies, of which 75 copies are for sale.

This is No. 67

TWO

MEDICAL TRACTS

 $\mathbf{B}\mathbf{Y}$

J. P. MARAT, M.D.



Reprint of Two Tracts

 AN ESSAY ON GLEETS.
AN ENQUIRY INTO THE NATURE,
CAUSE, AND CURE OF A SINGULAR DISEASE OF THE EYES.

By JEAN PAUL MARAT, M.D.

EDITED WITH AN INTRODUCTION

BY

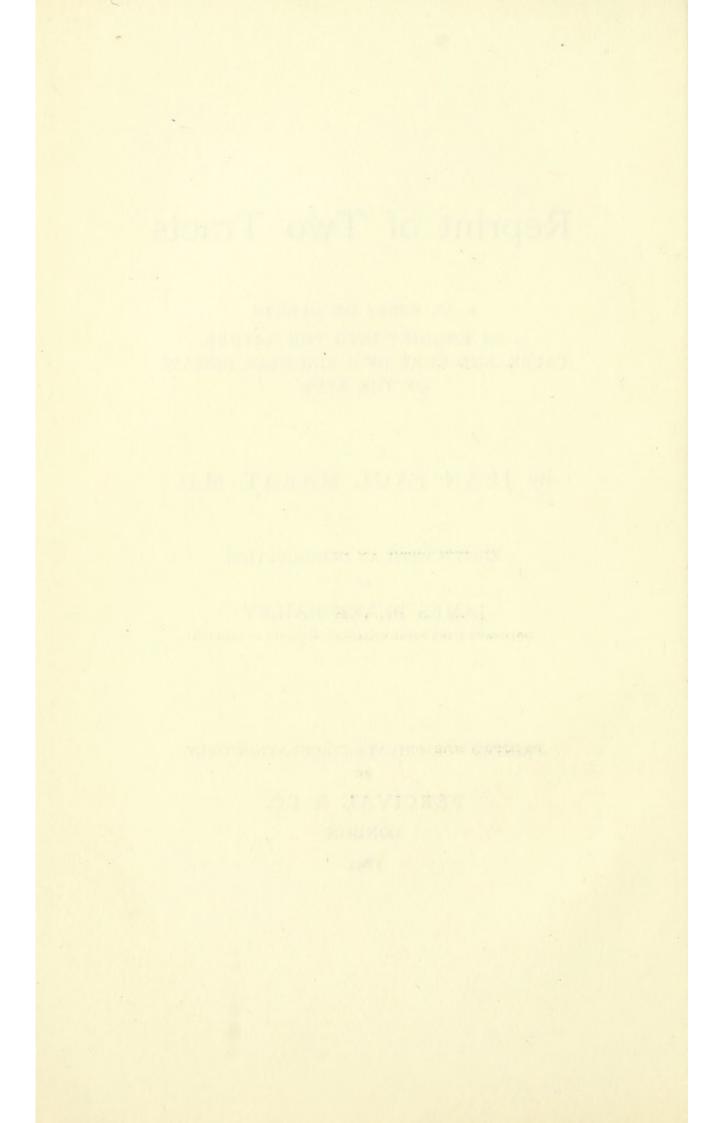
JAMES BLAKE BAILEY

LIBRARIAN OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND

PRINTED FOR PRIVATE CIRCULATION ONLY BY

PERCIVAL & CO. LONDON

1891



INTRODUCTION

THE two tracts here reprinted were written in English by Jean Paul Marat during his residence in Church Street, Soho, where he practised as a Physician.

Both of the tracts are exceedingly rare. Speaking of the former one, Mr. Morse Stephens, in his article on "Marat" in the *Encyclopædia Britannica*,¹ says, "no copy is to be found." Since the date of Mr. Stephens's notice of Marat a copy has come to light, and is now in the possession of Dr. J. F. Payne. Of the latter tract there is only one known copy: this is in the Library of the Royal Medical and Chirurgical Society of London. I have to thank the Council of the Society and Dr. Payne for their kindness in allowing copies of the pamphlets to be made for the purpose of publication.

The first tract is dedicated to the Worshipful Company of Surgeons in London, and is dated November 1775. As the type is broken the day of the month cannot be read with certainty in the copy from which this was reprinted : there is no other known copy to which reference can be

¹ Ninth edition, vol. xv. p. 526.

Introduction

made. The date is either the 21st or 24th: as regards the month and the year there is no doubt. The second tract has an address to the Royal Society, and is dated January 1st, 1776: as Marat returned to Paris in 1777 both these works were issued towards the end of his residence in London.

A few months before the publication of the Essay on Gleets, Marat had received an M.D. degree from the University of St. Andrews. The degree was equivalent to an honorary one, and, as was the custom of the time, was given on the recommendation of two medical men known to the Senate. The two who recommended Marat were Hugh James and William Buchan, doctors of medicine in Edinburgh. Marat passed no examination for the degree, and probably did not even go to St. Andrews to receive it. At that time it was customary to forward the Diploma on receipt of the graduation fee. Mr. Morse Stephens¹ is of opinion that Marat received degrees from other universities, because in 1777 on his appointment as physician to the body-guard of the Comte d'Artois he is described as "docteur en médecine de plusieurs facultés d'Angleterre." It may, however, be pointed out that at this date there were very few universities or faculties granting an M.D. degree, and also that the older universities did not

¹ Academy, September 23, 1882.

viii

Introduction

give the Doctor of Medicine as an honorary degree. It is known that Marat resided for some time at Edinburgh and at Dublin, but there is no record of his having received a degree from either of these Universities.

Although diligent search has been made by historians no record of any other qualification has been found, and it may fairly be assumed that the above description is an exaggeration of the St. Andrews degree.

There is evidence in both pamphlets that Marat practised medicine in Paris before coming to London. In the Essay on Gleets ¹ he speaks of his "ten years practice"; this probably gives a clue to the actual date of the beginning of his professional life. The duration of his practice in France before his coming to England must have been short. He took up his residence in England in 1766; the Essay is dated November 1775, and Marat was born in 1742: allowing for the ten years he mentions, he would have started practice about 1765, at which date he was twenty-three years of age.

The "Gleet" Tract shows that Marat's early work was not devoted entirely to this department of practice. Mr. Morse Stephens² says, "from Bordeaux he went to Paris, where he effected a

Page 17 of reprint.
History of French Revolution, vol. i. p. 216.

remarkable cure of a disease of the eyes, which had been abandoned as hopeless both by physicians and quacks, by means of electricity." This, no doubt, is the case of *Charlotte Blondel*, described on page 34 of this reprint. Marat himself says, speaking of the employment of bougies for the treatment of gleet, "as it was not my province to treat venereal diseases, this method had not engaged my attention."

Marat evidently had in mind other medical works. In the Essay on Gleets¹ he says, "If this essay should meet with approbation, I shall offer to the public a new method of radically curing gonorrhœas in a short time." And again, in the tract on Diseases of the Eye,² speaking of the action of mercury, "A complete Examination of them would swell these Sheets beyond the proposed Size; I therefore reserve it for the Subject of a future Publication." It may, I think, be safely said that these intentions were never carried out. Watt, in his *Bibliotheca Britannica*, gives the titles of the two tracts here reprinted, but makes no mention of the others; and, so far as I can find, they never saw the light.

The *Daran* under whose care the cases described in the first tract were before they came under Marat's observation, was Jacques Daran [1701-

¹ Page 7 of reprint. ² Page 29 of reprint.

Introduction

1784], a man who greatly distinguished himself whilst in the army during an epidemic of the Plague at Messina : after travelling all over Europe he lived at Marseilles, but finally settled in Paris. He was chiefly celebrated for his bougies for the treatment of diseases of the urethra : the composition of the bougie he kept a secret, and thus amassed a very large fortune. He ultimately, however, died at Paris in very poor circumstances.

The famous T * * *, under whose care the case described on page 17 was, I cannot identify with any degree of certainty.

The "ingenious Mr. *Miller*, Oculist," mentioned on page 44, was probably John Miller, an optician, who died at Edinburgh in 1815, having occupied for forty-eight years a leading position in that city. He was originally in business at 7 Parliament Close, and afterwards was in company as Miller and Adie in Nicolson Street.

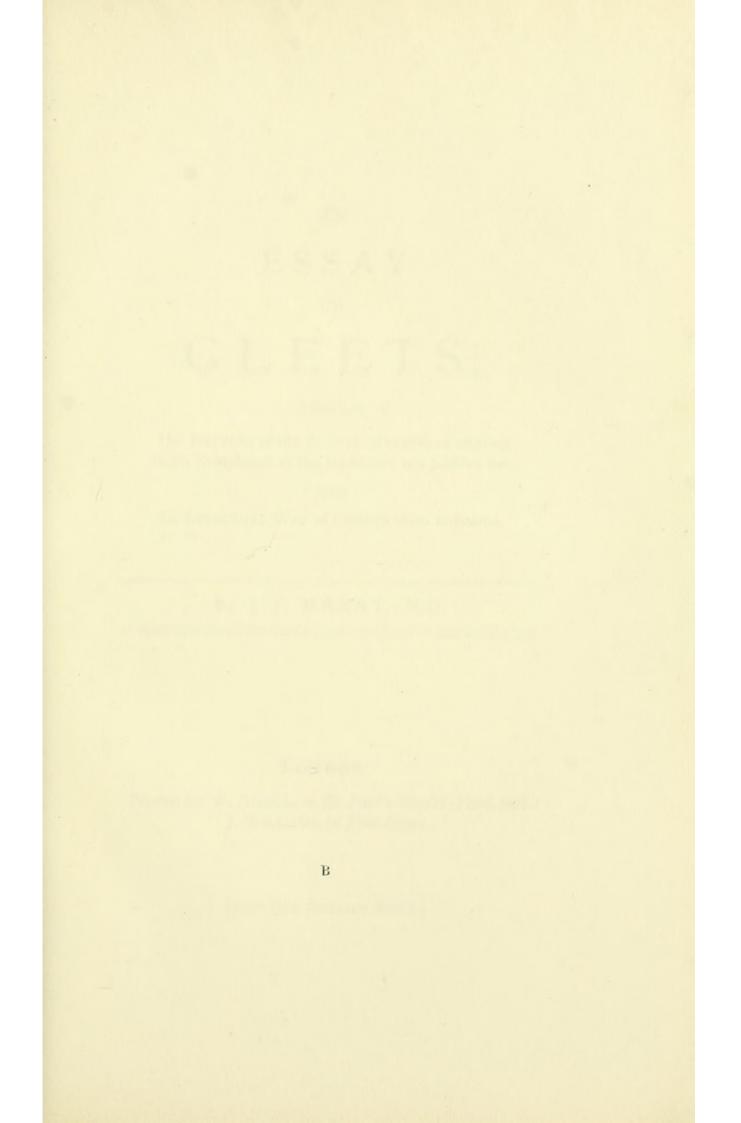
The original tracts are printed in 4to without any running title; the top of each page simply having the pagination in square brackets. The reprints follow the originals exactly as regards orthography, punctuation, etc. Obvious errors have not been corrected : the pamphlets are reproduced exactly as Marat wrote them.

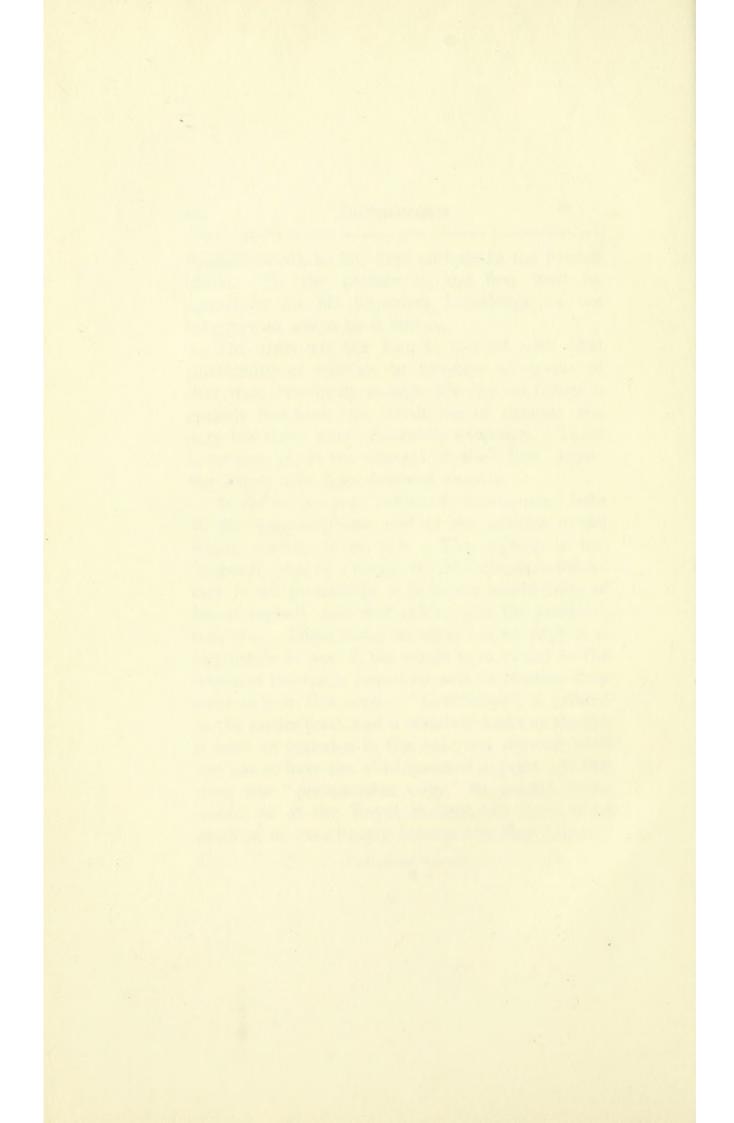
Marat's nationality comes out very strongly in more than one passage, where, whilst using English words, he has kept entirely to the French idiom. In the preface to the first tract he apologises for his imperfect knowledge of the language in which he is writing.

The tract on the Eye is printed with that prodigality of capitals so common in books of that date: curiously enough the one on Gleets is entirely free from this lavish use of capitals, and only has them where absolutely necessary. There is no note (b) in the original of the "Eye" tract: the letters have been followed exactly.

In the second tract the word "Gentlemen" both at the beginning and end of the address to the Royal Society is in MS. The writing is undoubtedly that of a foreigner: Mr. Stephens thinks that in all probability it is in the handwriting of Marat himself,¹ and that this copy is the presentation one. There being no other known copy it is impossible to see if the words were added to the whole of the tracts issued for sale, or whether they exist only in this copy. "Gentlemen" is printed in the earlier tract, and it certainly looks as though it were an omission in this case, not noticed until too late to have the word inserted in print. If this were the "presentation copy," its proper home would be at the Royal Society, but there is no mark of its ever having belonged to that Library.

¹ Academy, loc. cit.





AN

ESSAY

ON

GLEETS;

WHEREIN

The DEFECTS of the ACTUAL METHOD of treating those Complaints of the URETHRA are pointed out,

AND

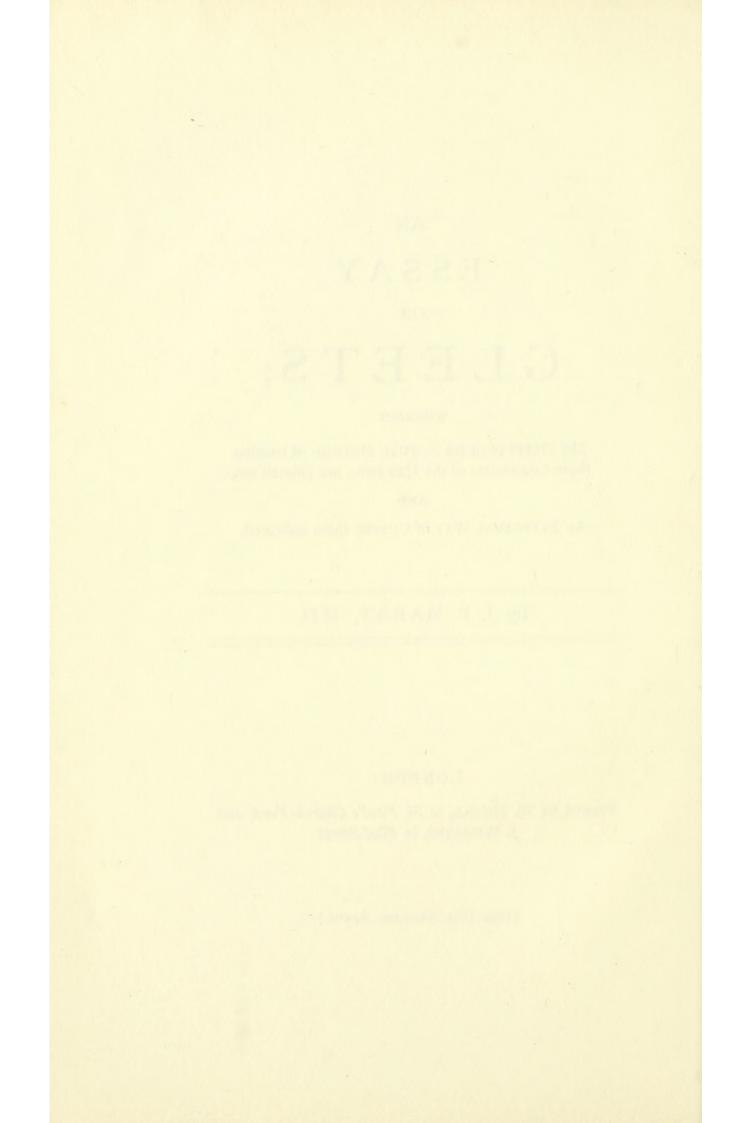
An EFFECTUAL WAY of CURING them indicated.

By J. P. MARAT, M.D.

LONDON:

Printed for W. NICOLL, in St. Paul's Church-Yard, and J. WILLIAMS, in Fleet-Street.

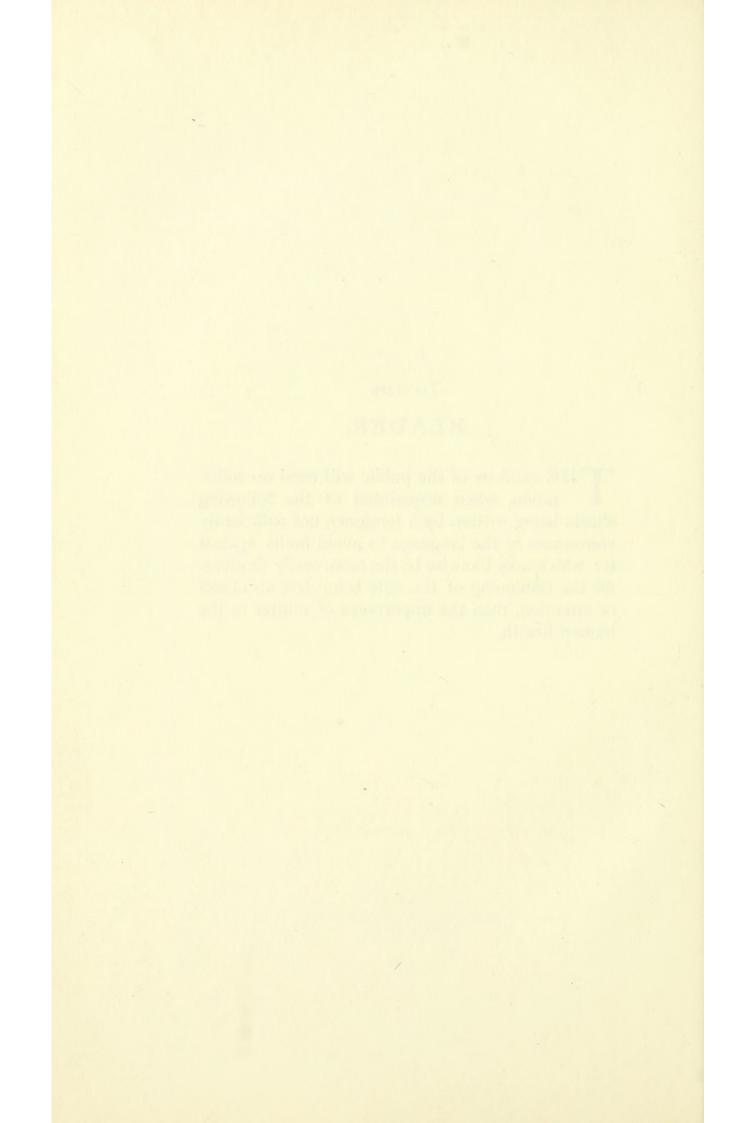
[Price ONE SHILLING Sewed.]



TO THE

READER.

THE candour of the public will need no solicitation, when acquainted of the following sheets being written by a foreigner, not sufficiently conversant in the language to avoid faults against it : which may likewise be the more easily forgiven, for the fashioning of the stile being less an object of attention, than the importance of matter to the human health.



To the Worshipful Company of SURGEONS in LONDON.

GENTLEMEN,

L^{ONG} since Surgeons both in *London* and *Paris* have assumed to themselves the treatment of Venereal Diseases, and Physicians generally decline it.

I cannot conceive what makes it your exclusive province the treating of those diseases, since in most cases the whole frame of the body is affected, and in very few the hand of an operator is wanted. But as the custom prevails, I do not pretend to strive against the torrent, and content myself with offering to you the most effectual method of curing Gleets--- a method which I at first discovered, by reflecting on the deplorable situation of a bosom friend, and which I afterwards put in practice at the earnest request of several acquaintances, and have ever since followed with constant success.

A man of mercenary principles would, no

doubt, keep it a secret; but a liberal mind is above such interested procedures. To promote the good of society is the duty of all its members; besides, what an exquisite pleasure it is for a benevolent heart to lessen, as much as possible, the number of those unfortunate victims, who, without hope of relief, labour under the many evils to which human nature is subject. Thus, not satisfied with relieving the patients who apply to me, I wish I could relieve many more by your hands. Happy, if in this respect, the fruit of my labour is not lost !

GENTLEMEN,

Your most obedient humble Servant,

J. P. MARAT.

Church Street, Soho. Nov. 21. 1775.

6

AN

ESSAY

ON

GLEETS, &c.

I ENTER in the subject without any preamble. A gleet, by the want of skill in those who undertake to cure venereal diseases, is but too often the sad consequence * of a virulent gonorrhœa.

The running is ever more or less coloured, often of a green tint, more often of a pale yellow, and sometimes of a dark brown, a little blood being mixed with it.

The matter discharged comes from the ulcerated glands of the internal tunic of the urethra : but when the running suddenly increases, it always proceeds, or from an inflammation of the muscular

^{*} If this essay should meet with approbation, I shall offer to the public a new method of radically curing gonorrhoeas in a short time.

tunic, as happens after too freely enjoying the bottle and the company of women, or from a rarefaction of the fluids *, caused by the expansion of the internal air; as happens in spring and autumn, two seasons where the atmosphere, being less elastic, does not oppose so great a resistance to the action of the internal air.

Formerly the running was attributed to a relaxation of the affected parts, an opinion still in credit among the ignorant; but by introducing a probe in the urethra, every one may be convinced that it is wholly caused by ulcers. *Daran*, who first made this discovery, attempted to cure gleets by suppurative bougies. His method was soon adopted as the most rational, and ever since followed by the best practitioners. Undoubtedly it proved successful in many cases; but in many others proved abortive, even in the hands of *Daran* himself.

Long I had not seen bougies employed for curing gleets, without finding them often ineffectual: however, as it was not my province to treat venereal diseases, this method had not engaged my attention. Mere chance afterwards obliged me to turn my thoughts to the

* A proof of it is, that in this case the running is ever accompanied with a sensation of scalding, which is not felt in the other case. subject, as I shall now relate with the reader's permission.

Calling one morning on an intimate friend of mine at *Paris*, I found him involved in the deepest melancholy. On enquiring into the cause, he acquainted me, that having been so long in the hands of *Daran* for the cure of a gleet, he at last thought himself free of it, when, on a sudden, he was cruelly disappointed. Upon which he begged of me to give him any advice in my power, his situation being extremely critical on the point of marriage with a young lady of fortune whom he loved, and with whom he could not bear the thought of engaging, while under so cruel a circumstance. On this I said to him all that occurred to me just then for his consolation.

After I had left him I could not help reflecting on his melancholy condition, and thinking how possibly he could be extricated out of it. The best way that offered to my mind was his cure.

I indeed considered suppuration as the only method to effect it. But not accustomed indiscriminately to adopt a method as soon as it is extolled, much less to follow it blindly, I enquired into the reasons of the frequent inefficacy of the usual practice, and soon was made sensible of them.

After mature consideration, I called upon my

friend, and proposed to attempt his cure. He readily agreed. The same day he took an apartment next to mine. I immediately began his treatment, attended him closely, and by suppuration properly conducted, was radically cured in seven weeks.

Some months after, two of his acquaintances left incurable by *Daran*, applied to me, requesting my assistance, and both were cured in eleven weeks time. But here is not the place for enumerating cures performed by my method; I therefore proceed to point out the defects of the actual practice of preparing and using bougies to cure gleets, and shall communicate the proper way to improve it, so as never to fail the intention.

The actual method of treating gleets is frequently unsuccessful, because defective.

The first defect is the hardiness of the suppurative, common bougies are made with. This is obvious from the structure of the affected parts. The internal tunic of the urethra, although ever irritated in a virulent gonorrhœa, is seldom the seat of the disease. Its seat is commonly the glandular tunic beneath the muscular, as is shewn by the abundance of the suppuration, and more plainly by dissecting. In such case, it is evident, that a common bougie introduced in the urethra, acting immediately on the internal tunic alone, cannot cause but an imperfect suppuration of the ulcerated parts, and consequently cannot perfect the cure.

If so, when the ulcers of the glandular tunic lie at the entrance of the lacunes in the internal tunic; how much more when the corroding virus has extended its seat, and produced a kind of sinusses, as is always the case in inveterate gleets!

Another defect in common bougies is a want of degradation in their suppurative virtue.

It is well known, that practitioners employ but one kind of suppurating bougies, made with a plaister, whose basis is lytargirium of lead and oil of olives; whilst, in order to conduct suppuration properly, bougies should be more or less suppurative, according to the stages of the disease.

Having for a long while made use of suppurative bougies, practitioners use dessicative ones, even when suppuration is still abundant. But to those who have the least notion of the means employed by nature in the reproduction of fleshy substance, it is evident, that such a sudden passage from active suppurative remedies to dessicative ones, never can produce the desired effect. After a forced suppuration, kept so for a long while, far from being incarnated, the cavity of the ulcers is widened, and all the fibres around it have lost their natural elasticity.

Thus dissicative bougies employed immediately

afterwards, being all of an astringent quality, and acting on the part alone they are in contact with, can only dry and crisp the edges of the ulcers, and cause them to become callous. The running is therefore stopt for a time, and never fails to break out again, when circulation is considerably increased by any accidental cause.

The use of common bougies, as they are actually made, is not only defective, but unrational and hurtful.

In common bougies, the suppurative plaister is spread over their whole superficies. Now, to apply the remedy in every point of the urethra, in order to cure some ulcerated parts, is certainly very absurd. What is commonly alledged in support of such a practice is, that it is only by giving to the medicament this extension, that it can be sure of reaching and acting on the diseased parts; but the seat of the distemper can easily be found, by gently introducing a probe into the urethra, and there only may the remedy be applied.

Absurd did I say this method was; it would be well if it was no worse, notwithstanding it is but too common for practitioners to assert each, that bougies of his own making are not irritating; it is a fact, that as being such only they can act, for without inflammation no suppuration is to be

12

expected. It is plain therefore, that the long standing application of an irritating remedy over the whole membrane of the urethra, must be attended with fatal consequences, such as crispation, and afterwards relaxation of its fibres. How many patients have I not heard, complaining of having nearly lost their virility by the use of those bougies continued for some months. In several of them, I have even seen the fibres of this membrane so corrugated, as that the præ-eminence of the glands was retracted within, and this retraction was ever accompanied with excruciating pains at the time of erections; however, the most fatal consequences attending the actual practice of curing gleets, is a permanent difficulty of making water. Dissicating bougies being employed in order to consolidate the ulcers, never fail to dry to an excess the parts they are in contact with ; they therefore produce too hard a cicatrice. This makes a more or less strong stricture in the urethra, which always reduce the stream of the urine.

Pointing out the defects of the actual way of conducting suppuration, in order to cure gleets, is in some sort indicating the proper way to do it; but as there are many particulars to be observed in the effectual method of curing those diseases, I shall lay down its whole process.

My first care is to inspect the parts. I take a bougie made of white wax, rendered flexible with a little turpentine. I make round and smooth one of its extremities, which I dip in the mucilage* of marshmallows, and then I introduce it gently into the urethra up to the urine bladder, carefully observing the parts where the patient feels any acute pain, which parts I consider as the seat of the disease. Being thus made sure where the ulcers are situated, I take another similar bougie, upon it I mark places corresponding to the ulcers, there spread all round a little of a suppurative plaister, which I make smooth, rolling it between the fingers, anointed it with mucilage of marshmallows, and I introduce the bougie in the urethra, when I judge that the remedy is in contact with the ulcers, I bend back the external extremity of the bougie; and to fasten it, nothing is wanting but to pinch it a little.

The suppurative I use at first is diachilum cum gummis, rendered softer than usual; in order that being further dissolved by the natural heat, it may penetrate into the cavity of the ulcers.

The space of time I continue using it, is proportionate to the inveteracy of the disease; and

* I use the mucilage of marshmallows instead of oil, for it does not oppose the healing of ulcers as oily substances do.

14

to fix it between proper limits, requires the skill of an able practitioner.

The caustic humours which an ulcer contains, vitiate the nutritive lymph, and prevent its assimilation to the substance of the corroded fibres; and besides adhering to these fibres, they keep them in a state of rigidity, and oppose their extension. The first reason therefore, showing the necessity of suppuration in order to cure ulcers, is to evacuate these humours. The next is to dissolve the callous edges of the ulcers, and to aid the corroded fibres to discharge the viscid fluids with which they are filled.

Thus having used diachilum cum gummis, I employ four times a day injections made with a weak solution* of sal ammoniac in common water, and order the injection to be kept in the urethra five minutes every time. Mean while I make use of a weaker suppurative, such as † *l'onguent de la Mer*.

The time the injection and suppurative are to be continued, is likewise to be proportionate to the inveteracy of the disease, and must be longer if any astringent injection has been made use of,

* Although the solution of sal ammoniac be a powerful dissolvent of callous substances, yet it does not injure sound parts.

⁺ This unguentum is but little, if at all, known in England. The formula of its composition is to be found in the *Paris* dispensatory.

C

or any callous had been discovered in the urethra by passing the probe up to it.

When the use of this suppurative is discontinued, I employ another made with

| Gold lytharge | 3 vj. |
|-------------------|--------|
| Oil of olives | 3 xji. |
| Yellow wax | 5 jv. |
| Venet. turpentine | 3 ji. |
| Bol. Armœn | 3 ji. |

Every day I render it less suppurative by mixing with it a few drops of Peruvian balsam, and continue its use till the ulcers are consolidated.

The space of time necessary to perfect the cure of slight gleets, is generally from twentyfive to thirty days; and of stubborn ones, seldom exceeds ten weeks.

But to these observations I must add a few others very material.

Sometimes patients who labour under these complaints, are of a habit of body scorbutic, or infected with the venereal taint; in such cases the humours ought to be purified, before the cure of the ulcers is attempted.

If the patient is of a phlegmatic or plethoric habit of body, the ulcers are always difficult to heal. A drachm of bark in powder should

16

therefore be prescribed to be taken in a glass of red wine, every day during the treatment.

Such is my method of curing gleets; and if ten years practice attended with constant success, may be allowed a sufficient time to convince of its efficacy, I may confidently offer this my idea to the sensible practitioners, and flatter myself that every one who shall adopt it, will find the greatest satisfaction in this respect.

Among the great number of instances I could quote to evince its superiority over all other methods hitherto in vogue, I confine myself to the two following.

In 1762 J. A. Esq; contracted a virulent gonorrhœa at Naples. There he applied to the famous T * * *. Having been some months in his hands, without receiving any benefit, he went to Rome, where affairs of importance called for his presence; and there likewise he was attended for a long while by some reputed practitioner, but with no better success.

From *Rome* he went to *Florence*, where he was also under the hands of the best surgeons.

Two years were already wasted in fruitless attempts, when the patient set off for *Paris*, and there was for two years together under the care of the celebrated *Daran*. During that time he underwent a long course of remedies. The running indeed disappeared, when dissicative bougies were made use of, but returned soon after.

A circumstance, however, which must appear strange at first sight is, that the return of the flux was periodical. It regularly broke out every year at the beginning of spring and autumn.

From Paris the patient came over to London, Anxious to be cured, he his place of abode. applied to an eminent surgeon, (whom it would not be candid to name) who for eighteen months attended him with great assiduity. Various were the remedies employed to subdue the running. Among them the suppuration was again tried, and again did the running stop by the use of dissicative bougies. When stopt the patient was assured of his being cured, and to remove every doubt about it, was advised to drink punch pretty freely. So he did; but no sooner was the tryal made, than the running returned with greater violence. Vexed at so many disappointments, the patient was determined to resign his fate to Nature alone, and for a while did not alter his resolution, till hearing (from a friend) of some striking cures of similar complaints I had performed, that he might not have any reproach to make to himself, he resolved to venture a last experiment.

When he applied * to me, his running was just coming upon him; it was of a deep green, both scalding and abundant. The erection of the penis was accompanied with excruciating pains, and the muscular tunic of the urethra so crispated, that the extremity of the glands was retracted inwards. The urine spouted out in a small stream, slowly and with difficulty. Some time he experienced a sort of retention, and never could eject it without passing a bougie in the neck of the bladder once a day.

My first care was to relax the contracted parts; which I did by mucilaginous injections. In a week's time no pain was felt in erections; the summit of the glands again became proeminous, and the scalding was considerably abated.

Suspecting the whole mass of the lymph to be infected, as the patient was rather of a plethoric complexion, I made him for a long while go through a course of sudorific draughts.

When his humours were judged well purified, I employed suppurative remedies, as I have explained before, and in about three months time the ulcers were consolidated.

There are now nearly five years that this gentleman has found himself perfectly cured.

* In October 1769.

An Essay on Gleets

Ever since the difficulty * of making water has diminished every day; and these eighteen months past he did not need the introducing of a bougie in the neck of the bladder.

Such is the first case I was speaking of: the second is somewhat more surprizing.

Mr. J. G. a celebrated artist,⁺ having contracted a virulent gonorrhœa at *Milan*, was for several months in the hands of a surgeon in that town, and left uncured. From *Milan* he went to *Spain*, and there was the space of twenty-five years under the hands of all those who had any repute for curing venereal diseases.

At first, all sorts of remedies were tried in turn, by every one of them, and at last astringents rashly made use of to stop the running, in order to have a pretence for payment.

The running once disappeared for eleven months, but returned, without any apparent cause, more violently than ever; and ever since, till a few years ago, broke out again after indulging too freely in drinking.

* When the difficulty of making water, which generally attends gleets, comes from any other cause but an irritation of the urethra; the removing of it requires a particular method.

+ Discretion is a part of the duty of a physician : But although ever so reluctant to see their names in public print, the gentlemen in question will not decline to appear in support of truth, if a private interview was desired by patients. I have their word for it.

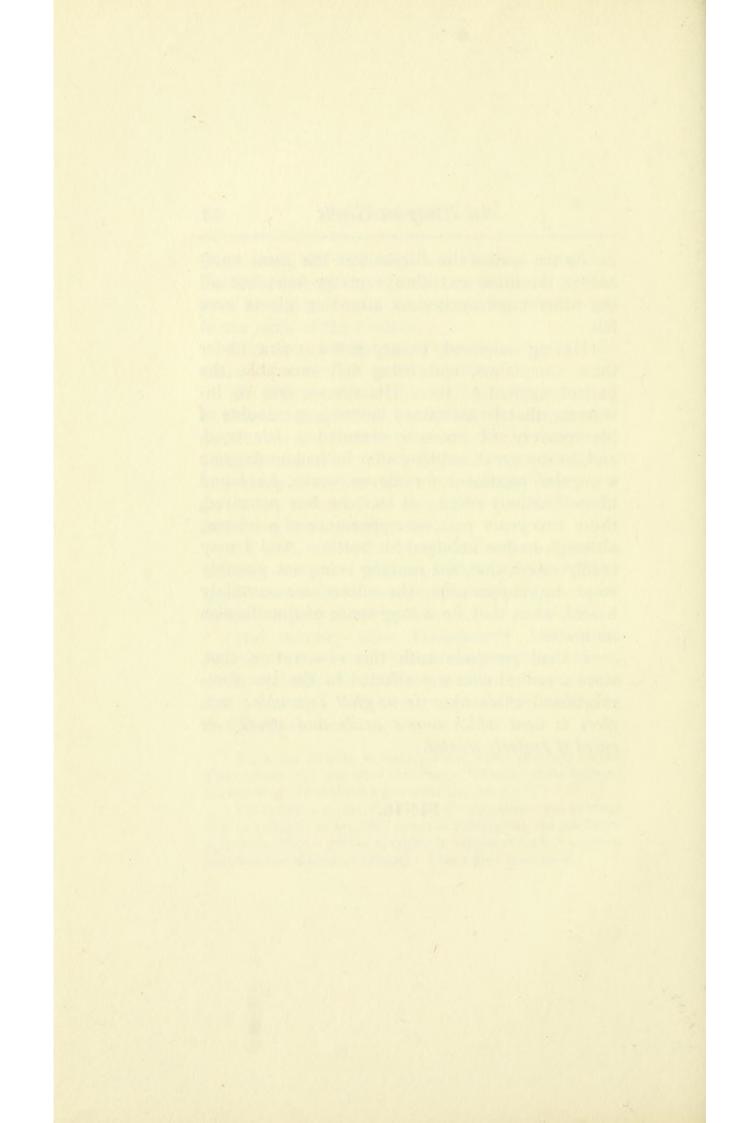
20

As the seat of the disease was the *fossa navi*cularis, the urine was always pretty free; but all the other cruel symptoms attending gleets were felt.

Having laboured twenty-seven years under these complaints, and being left incurable, the patient applied to me. His disease was so inveterate, that I entertained indeed some doubts of his recovery : I however ventured a fair tryal, and, to my great surprize, after he had undergone a regular treatment for eleven weeks, he found himself entirely cured ; at least he has perceived, these two years past, no appearance of a relapse, although he has indulged his bottle. And I may boldly assert, that, the running being not possibly stopt by suppuration, the ulcers are certainly healed, when they for a long space of time furnish no matter.

I shall conclude with this observation, that, since a radical cure was effected in the two forementioned cases, there is no gleet incurable: nay, there is none which cannot easily and speedily be cured if properly treated.

FINIS.



ENQUIRY

AN

INTO THE

NATURE, CAUSE and CURE

OF A

SINGULAR DISEASE

OF THE

EYES,

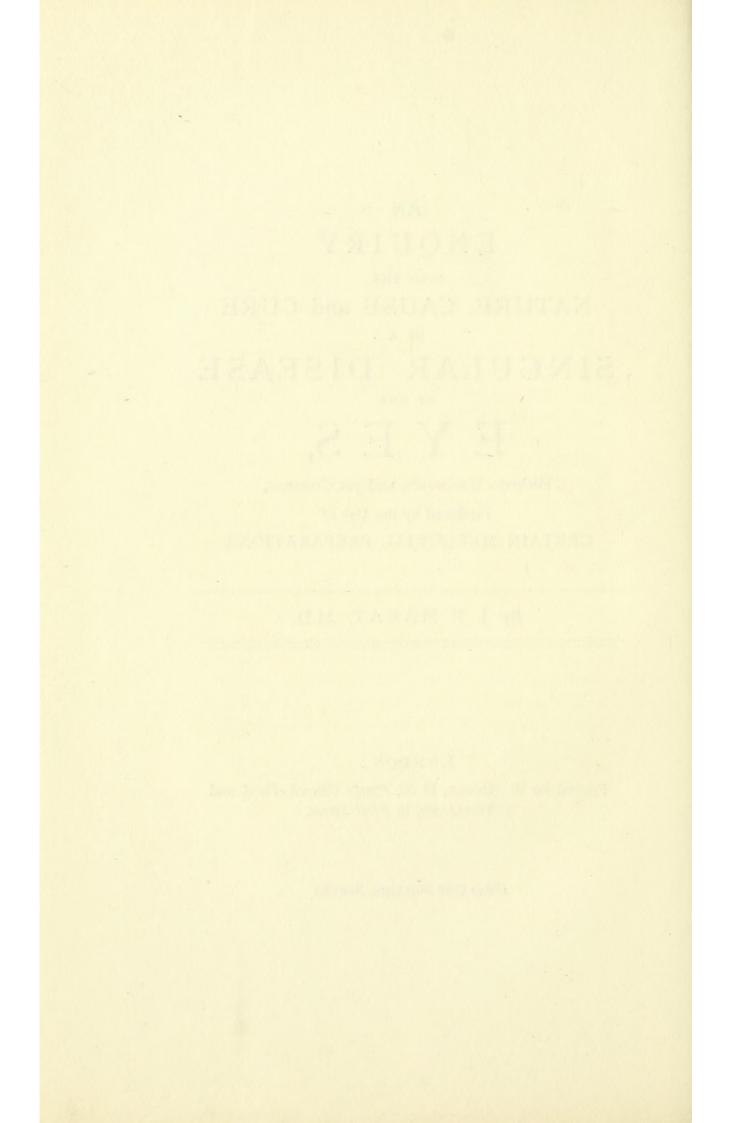
Hitherto UNKNOWN, and yet COMMON, Produced by the Use of CERTAIN MERCURIAL PREPARATIONS.

By J. P. MARAT, M.D.

LONDON:

Printed for W. NICOLL, in St. Paul's Church-Yard, and J. WILLIAMS, in Fleet Street.

(Price ONE SHILLING, Sewed.)



TO THE

ROYAL SOCIETY.

Gentlemen

THIS is not a Dedication : such a Matter of Form I have ever thought beneath the Dignity of Philo-My Idea hereby is purely (after the sophy. Example of communicative Naturalists, proud of contributing to the Cabinets of the Curious any rare Fossil, or Article of the Study of Nature) to intreat that, in your immense Collection of Facts, Experiments and Researches, you will permit me to ask of you a small Nook for an Observation of a Phænomenon in the Animal Oeconomy: a singular Phænomenon, which has hitherto escaped the Attention of Physiologers, and which, I presume, is too curious not to excite your Attention. If, when the Occasion may present itself, any of the Members of your Society would be pleased to amuse themselves with verifying, by Dissections, the Elucidation of it, which is offered in the

following Sheets, it might not, perhaps, be a regrettable Employ of Time.

I am, with the most perfect Respect,

Gentlemen

Your most humble

And most obedient Servant,

J. P. MARAT.

Church-Street, Soho, January 1st, 1776.

ENQUIRY, &c.

AN

AMONG the various Diseases affecting the EYES, there is one still ^(a) unknown, which Practitioners have hitherto confounded with the *Gutta Serena*.

These are its characteristic Symptoms :--- The Eye (when touched) becomes somewhat painful, without any apparent Cause ; a Pression or Stiffness is felt inwardly ; the lateral Motions of its Globe are performed with Difficulty; near situated Objects can no longer be seen ; remote ones alone are distinguished at a fixed Distance, and even these imperfectly.

This singular Affection of the Eye, which has yet no Name, but which may be termed *Accidental*

^(a) Nor is this to be wondered at, considering how few Oculists, if any, are acquainted with Optics; a Science, however, absolutely necessary to investigate the Causes of Defects in Vision. Nay, since curing the Diseases of the Eye became a peculiar Branch of the Medical Art, it is wholly left to Operators, who in general do not know the Functions of the several Parts which constitute the Organ of Seeing, but are even ignorant of its Structure. *Presbytopia*^(c) or Long-sightedness, is ever the fatal Consequence of taking prepared Mercury without proper Care.

When Calomel, Panacea, Sublimate corrosive, or any other Mercurial Preparation in a saline Form, has been unseasonably administered, if not immediately evacuated by Purgatives, it passes with the Chyle into the Blood.

As it circulates, it unites with the *Mucus*, with which it has a more intimate Affinity than with any other of our Humours. Afterwards it is carried into the glandular Organs, there to be $^{(d)}$ secreted.

Whilst not yet united with the *Mucus*, if any of its Particles are of too large a Bulk to pass freely through the minute capillary Vessels, which it will have entered, it irritates their Coats with its sharp Angles: the Vessels contract; their Diameter being diminished thereby, the Lymph no longer permeates them freely; but, its Afflux continuing the same, distends their Cavity. The

(c) This Disease is more common than one would readily imagine, since it is a predominant Custom, both among Surgeons and Physicians, to prescribe Mercury in almost every Case. And I dare assert, that out of Ten Patients whom they give out as afflicted with a *Gutta Serena*, Seven are affected with an accidental *Presbytopia*.

^(d) Such is the Reason why Mercury, when taken, does not excite a Salivation immediately.

distended Vessels soon compress other minute adjacent ones; and these being obstructed and distended in their Turn, the whole Texture of the Organ they form is tumefied.^(e)

Where nervous Fibres and Blood Vessels concur to the Constitution of the Organ, the Tumor is ever accompanied with a painful Inflammation.

Such being the Operation of prepared Mercury, it is capable of disordering the Animal Œconomy in many Ways, according to the Functions of the affected Parts. A complete Examination of them would swell these Sheets beyond the proposed Size; I therefore reserve it for the Subject of a future Publication. Here I confine myself to the Effects of Mercurial Salts on the Organs of Vision, in Order to account for the Phænomena of the Disease about which I am treating.

Mercurial Particles, carried into the minute Vessels of the ocular Muscles, irritate them: Irritation is soon followed by Contraction and Obstruction; thus the whole Substance of the Muscles becomes inflamed, and their Bulk swelled. Hence from the inward Pression, Stiffness and obtuse Pain, which are felt in this Disease.

That the Light's Rays, which fall on the Eye,

^(c) It is well known that not only Arteries, but Veins, are susceptible of Irritability.

may express a distinct Image on the (f) Choroïdes, they are to have their Focus thereon. This cannot be effected, except when this Membrane is at a certain Distance from the Lens; and this Distance is ever relative to the Position of Objects.

Rays reflected by proximate Objects, being less refrangible, have their Focus more distant from the Lens, than Rays reflected by remote ones. In order to distinguish Objects at various Distances, the Soul therefore approaches the Choroïdes to, or remove it from, the Crystaline; that is to say, the Soul alters the Figure of the Eye:---An Alteration ever effected by the Motions of ocular Muscles.

Thus, when the Motion of these Muscles is obstructed by their swelling, it is plain that there is no being able to see clearly Objects at several Distances.

When viewing remote Objects, the Eye is retracted towards the Bottom of the Orbit by the Contraction of its strait Muscles; for as they contract, these Muscles bring back the anterior Hemisphere of the Globe (to which their Apponevroses are adhering) to the posterior one; they thereby approach the Choroïdes to the Crystaline.

(1) On this Membrane is the Image of Objects painted.

Thus the strait Muscles of the Eye being swelled and contracted by irritating Mercurial Particles, Objects cannot be distinguished but at one particular Distance.^(g)

When viewing near Objects, the Eye, laterally compressed by its oblique Muscles, seems to be forced out of the Orbit. Its Globe being thereby lengthened, the Choroïdes is more distant from the Crystaline. But as the Eye has only two oblique Muscles to four strait ones, when its Muscles are all swelled to the same Degree, the Choroïdes is more retracted towards the Crystaline by the former, than it is retracted from by the latter.

Thus near situated Objects cannot be so clearly distinguished as the remote.

When the oblique Muscles are not equally swelled in their whole Extent, the Bottom of the Eye, pressed towards its Axis, forms no longer a regular Circumference, whose Points are each equally distant from the Lens. Therefore, of the Rays which fall on the Choroïdes, Part only have thereon their Focus; the other are yet too divergent to express a distinct Image.

(x) As ocular Muscles are seldom swelled, or all equally so at the same Time, the taking of Mercurial Preparations neither does affect the Sight of every Individual, nor equally both Eyes of the same Individual.

D

Thus even remote Objects cannot be distinguished but imperfectly.

So far for the Investigation of the Nature and Cause of this Disease.

Having been hitherto mistaken for a *Gutta Serena* by Practitioners, it has accordingly been treated as such. Issues, Vomiting, Purging, Salivation, have all, occasionally, been tried; but every Method yet attempted to remove this Disorder, has been to no better Purpose than to confirm it.

A rational Treatment of this Disease, I should imagine, cannot but be acceptable to the Public; I therefore proceed to point it out.

The Indications for a radical Cure are three, relaxing, deobstructing, and restoring to their due Tone the ocular Muscles.

In order that they may be relaxed, the Patient must avoid spirituous Liquors, Tea, Coffee, Chocolate, Aromatics, great Exercise, and violent Passions. He also must observe a low Diet; his only Drink, for a while, ought to be either Barley-water, Whey, Marsh-mallows Infusion, or Orgeate.

Regimen being prescribed, the Cure is to be attempted by a moderate Bleeding at the Foot, which is to be repeated once every Week.

Every Day (except those of Bleeding) the

Patient should take, for a whole Month, two, three, or four Drachms of Cassia, according to the Strength of his Constitution.

When his Fluids are well diluted, antispasmodic ^(h) Suffumigations are to be conveyed to the Eyes by a proper Instrument. Emollient ⁽ⁱ⁾ Pultises are likewise to be applied to the temporal Regions.

These being made Use of, the Swelling of the ocular Muscles gives Way by Degrees, the obtuse Pain vanishes, the Globe of the Eye collapses, and Vision begins to be restored.

Then some electrical ^(k) Sparks are to be drawn from the Canthi of the Eyes, Morning and Evening, during a few Weeks. Mean while, a Plaister of *Tacamahaca* is to be worn on the Temples. These Remedies being calculated to remove all Obstruction of the affected Parts, promote the restoring of the Sight, and complete the second Indication.

When Vision is nearly (1) in its former State,

 $^{(h)(i)}$ I confine myself to the Indication of general Remedies, without entering into Particulars: as to the judicious Physician, it is left to select such as most agree with the Patient's Constitution.

(k) It is a material Point to know when Recourse to Electricity is to be had; for, if unseasonably employed, it only proves hurtful.

(1) As lasting Swelling, or Tension, is ever followed by a pro-

there remains only a Weakness of Sight, which is gradually removed by often washing the Eyes with fresh Water alone.

Such is the Method I have pursued to perform the following Cures, being the only ones of the Kind I ever attempted.

Charlotte Blondel (the only Daughter of a Merchant in *Paris*,) a girl of about Eleven Years of Age, and of a delicate Constitution, being troubled with Worms, Mercurial Cakes were prescribed to her; and although she had been purged, now and then, during the Course of this Remedy, a Salivation came on. Soon after her Head swelled, and her Sight was altered in such a Manner that she could hardly distinguish any Object.

In order to conquer Salivation, purging was repeated every Day. It indeed soon diminished; so likewise did the Swelling of the Head: The Sight also was somewhat better. By following the Use of the same Laxative, every Symptom at last disappeared, except the Alteration of Vision; for she could only see Objects at a Distance.

The Parents, uneasy on their Daughter's

portionate Relaxation, the ocular Muscles cannot suddenly recover their former Strength, so as to give the Eye a proper Figure to see clearly at various Distances.

Account, applied to a famous Oculist, who declined undertaking the Cure.

Afterwards Application was made to a Fryar, of some Repute for curing Diseases of the Eyes. He gave it as his Advice, that the Patient was afflicted with a *Gutta Serena*, and attended her for Seven Months together, prescribing at first sudorific Drinkings, and at last ammoniac Suffumigations, which produced no other Effect but to inflame the Eyes.

The Patient was already given over, when I undertook her Cure. As I was not unversed in Optics, and had seen several People affected in the same Manner, I soon was made sensible her Case had not been understood.

Considering the Swelling of the ocular Muscles as the true Cause of this Disease, I was convinced that the only Remedies to be employed at first were Laxatives and Emollients. Accordingly, having fixed upon a cooling Diet, I prescribed two Drachms of Cassia to be taken fasting every Morning, for three Weeks together, and Infusion of Marsh-mallows for her Diet-drink. Seeing that the Patient had a Disgust to this Infusion, Whey was substituted to it.

My Patient received no Change in her Vision for Fourteen Nights, but afterwards found a little Benefit. In order to ascertain it in Future, I framed a Scale, whereon I marked the nearest Distance she could tell the Hour by a Watch. The Distance was Eight-and-Twenty Inches.

Judging the Use of Cassia had been continued long enough, I advised Marsh-mallows Suffumigations to be taken twice a Day, and a soft Pultis of the *Quatre Farines* to be applied to her Temples. These were used for a whole Month, at the latter End of which the Scale was reduced to Twentytwo Inches; that is, the Patient could tell the Hour by the same Watch at Twenty-two Inches Distance.

As her Humours appeared well diluted, in order to remove the Obstruction of the ocular Muscles, and promote the reducing of their Bulk, I desired to have some Sparks drawn from the Canthi of her Eyes, but was opposed by her Mother, who having imbibed a strong Prejudice against such Remedy, never would consent to it. Here I took Leave of my Patient.

Ten Days after I was sent for by her Father, who, after a short Apology, told me, "if I was "still of Opinion that Electrization would be of "any Service to his Daughter, my Advice should "be followed." I answered in the Affirmative.

The next Morning a few Sparks were drawn accordingly. However, to estimate the Effect of the electrical Fluid in this Case, I previously repeated the Observation with the Watch, and found no Alteration in my Patient's Sight, since I had discontinued to attend her.

In the Evening a few Sparks likewise were drawn. The same was repeated for many a Day, having Care, at every Time, to increase the Number of Sparks.

She advanced but slowly towards her Recovery ; for at the Beginning of the fourth Week the Scale was reduced only to 18 Inches.

Astonished at so inconsiderable a Progress, I allowed some Intermission to my Patient. During that Time, enquiring into what could have checked the Efficacy of a Remedy I so much relied upon, I made the following Reflection :- - That since electrical Sparks acted only as stimulating, they possibly could neither deobstruct nor reduce swelled Parts, as long as there was a Redundancy of Blood. To diminish its Mass, I therefore had Recourse to Bleeding, and the next Day Electrization was re-assumed.

The Event justified my Expectation; for drawing Sparks had not been continued eight Days, but the Scale was reduced to 13 Inches.

I had then a Mind to repeat Bleeding, but was obliged to postpone it, on Account of the Weakness of my Patient.

Having been bled a second Time, a Plaister of

Tacamahaca was applied to both her Temples, and Electrization continued. A few Days after the Scale was reduced to Nine Inches.

These Remedies were made Use of three Weeks longer; but, seeing no farther Reduction of the Scale, I judged the Vision to be nearly restored to its original State. The stimulating Plaister and Electrization were then left off.

For a while there remained to the Patient an Incapacity of fixing Objects. As this was entirely dependant on the Weakness of the ocular Muscles, I prescribed Lotions with cold Water mixed with a few ^(m) Drops of HOFFMAN'S *Balsam Vitæ*, which at last perfected the Cure.

D. B. a Merchant in London, having contracted a virulent Gonorrhœa and Bubo, applied to a Surgeon of Repute, who (suspecting the whole Mass of Humours infected with the Venereal Taint) administered to him corrosive Sublimate in Spirits of Wine.

In order to keep his Body open, a Dose of Jalap indeed was given now and then : But as this Purgative is of a drastic ⁽ⁿ⁾ Kind, and as the Patient observed no Sort of Regimen (enjoying his Bottle

^(m) I have since experienced that fresh Water does better alone than mixed with Spirits.

⁽ⁿ⁾ Drastic Purges produce momentaneous Dejections, and are all followed by Costiveness.

as freely as before) a violent Salivation came on; which however, by timely Assistance, was soon conquered.

The Use of corrosive Sublimate had been reassumed but a few Days, when the Patient having made an Excess in Drinking, his Running suddenly disappeared, and in Four-and-Twenty Hours broke out in the small Canthus of the Left Eye: both Eyes became inflamed, and the whole Face swelled.

The next Day the Opthalmia was such as the Patient could not bear Day's Light. For a while he kept his Eyes shut; and when he did open them, it was only to be sensible that his Sight was nearly lost.

It was long before the Opthalmia was entirely discussed; but when it was so, the Vision was much affected, for the Patient could see no Objects except at a Distance; and those only partially, their Image being incompleat.

In his Vexation at this, he discharged the Surgeon who attended him, and applied to another.

In order to restore his Sight, Purges with Calomel were frequently given, and a Blister kept open on the Neck; but to no Effect.

A Discharge at the Nose was at last promoted by Powders *Errhynes* and Volatile Salts: These excited a fresh inflammation, and rendered the Disease worse.

The Patient had laboured Seven Months under these disagreeable Circumstances, when he put himself under my Care.

As he was of a sanguine Habit, I had him bled twice the first Day : Afterwards I prescribed a cooling Diet, and kept his Body open with gentle Laxatives.

For Fourteen Nights together no other Benefit was received, except that the Eyes were less painful when touched; but during the Course of the third Week, the affected Parts were quite easy: Objects indeed were not distinguished at a nearer Distance, but their image was not so much mutilated.

I then had the Patient bled again, and employed emollient Suffumigations and Pultises. These being continued for Fourteen Nights, a great Change was produced in Vision; the image of Objects was no longer mutilated.

Bleeding was repeated. The next Day the Patient re-assumed his Laxatives, which he continued for a whole Week. Afterwards he was electrified in the Manner already described, and a Plaister of *Tacamahaca* was applied to his Temples.

Stimulating Plaisters, drawing Sparks, and

diluting Infusions, removed in Five Weeks all Obstruction and Swelling of the ocular Muscles. The Sight being thus restored, frequent Lotions with cold Water alone soon compleated his Cure.

In January 1773, J. P. Esq ; took Sublimate Corrosive dissolved in Spirit of Wine, with a view of eradicating a stubborn Gleet. As no Care had been taken to keep his Body open, a Salivation came on. When under this Circumstance, he inconsiderately took a Morning Ride, in a sharp Northerly Wind. At his Return Home he was seized with a sort of Quinsey: His face swelled to a monstrous Size, and his Eyes were inflamed.

To relieve him, frequent Doses of Jalap were given.

As the Patient could bear no vivid Light, and was in Danger to be suffocated whilst lying in Bed, he passed Night and Day on an elbow Chair, in a darkened Room.

When the dreadful Symptoms disappeared, on again admitting Light into his Room, he was apprehensive of having lost his Sight, but was soon made sensible that it was only altered, for there was left to him a Sensation of Objects at a certain Distance.

Too long and tedious would be the Narration

of the various Remedies, which were vainly employed in order to restore the Organ of Vision. I shall only observe that, when I was applied to, the Patient had laboured nearly Two Years under that cruel Disorder; and so weak was the Impression of Objects on his Left Eye, that I looked upon the Success of my Attempt as at best very doubtful.

Upon examining how far the natural Focus of the Rays of Light had been changed, I found that my Patient could not possibly see the Hour on a Watch, clearly, at any Distance whatever; but that he saw it less imperfectly when the Watch was at Thirty-two Inches Distance:---An Alteration of Vision the greatest I have ever known.

To add to his Misfortune, the Patient was of a scorbutic Habit; so I had two Diseases to attack instead of one.

The first Thing to be done in this Case was, undoubtedly, diluting and purifying the Humours; but among the antiscorbutic Remedies, such were to be carefully avoided as were impregnated with acrid principles; for Example, Water-cresses, bitter Plants, Tar-water, *Harrowgate* Water, Chalybeate Water, Elixir of Vitriol, Spirit of Sea Salt, &c. being all diametrically opposite to the aimedat Relaxation of the rigid Parts. Accordingly I prescribed Whey and Apple-water for the sole Diet-drink, with Milk and fresh Vegetables for Food.

Not daring to venture even a small Bleeding, on Account of my Patient's emaciated state of Health, I judged it proper to diminish the Mass of Blood, by keeping his Body open with Cassia and Tamarinds.

This Method had the desired Effect. Not only the scorbutic symptoms disappeared in Five Weeks, but one Eye was somewhat better.

No Alteration was made in the Diet; but, as the Patient's Constitution was then not so much debilitated, I prescribed Laxatives more frequently : I likewise begun using emollient Suffumigations and Pultises. They proved so effectual as to reduce the Scale to Twentythree Inches in Fourteen Nights.

The Patient daily gathering strength, I was no longer apprehensive of any bad Effect from Bleeding, and accordingly had him bled. Suffumigations and Pultises were continued three Weeks more, and during the interval the Scale was reduced to Sixteen Inches.

I had him bled again, and afterwards electrified. The twelfth Day the Scale was reduced to Ten Inches.

By continuing Electrization, Laxatives and

44 A Singular Disease of the Eyes

Tacamahaca Plaister a Month longer, the Scale was further reduced One Inch and a Half.

Judging that Vision was almost restored to its pristine state, I advised him, for the bracing it, Lotions with cold Water alone. I must confess, however, that ever since the Left Eye has remained weak.

These are the Cures^(ϕ) performed by my Method. They indeed are not numerous, but are sufficient to prove the Attempt as safe as it is rational: And whenever this Method shall be employed with Judgment, I have no Doubt but it will be attended with the same Success. But even allowing there is still much Room for Improvement, was the Question put to me, *Why I offer it now to the Public?* my Answer is plain---*Because the actual Practise of treating this Disease is evidently wrong.*---Thus pursuing a wrong Plan, not only the Hopes of the Patient are frustrated, but his Case becomes desperate.

If one cannot always be the happy instrument

⁽⁹⁾ The last *August*, being at *Edinburgh*, I (under the Eyes of the ingenious Mr. *Miller*, Oculist) treated an *American* Gentleman afflicted with this Disease. During the few Weeks he was under my Care, the Scale of Vision was reduced more than one third Part. Affairs calling me back to *London*, I left him in the Hands of Mr. *Miller*, with proper Directions how to proceed in the Treatment. Since I have heard that the Patient could not continue at *Edinburgh* long enough to perform his Cure.

A Singular Disease of the Eyes 45

of alleviating the Misery of the Unfortunate, it is, however, a sort of service tendered to them, to prevent their being made worse. On this Consideration I claim the indulgence of the Public.

FINIS

