

An improved method of opening the temporal artery, also, a a new proposal for extracting the cataract ; with descriptions and delineations ... to which are now added a miscellaneous introduction, and cases.

Contributors

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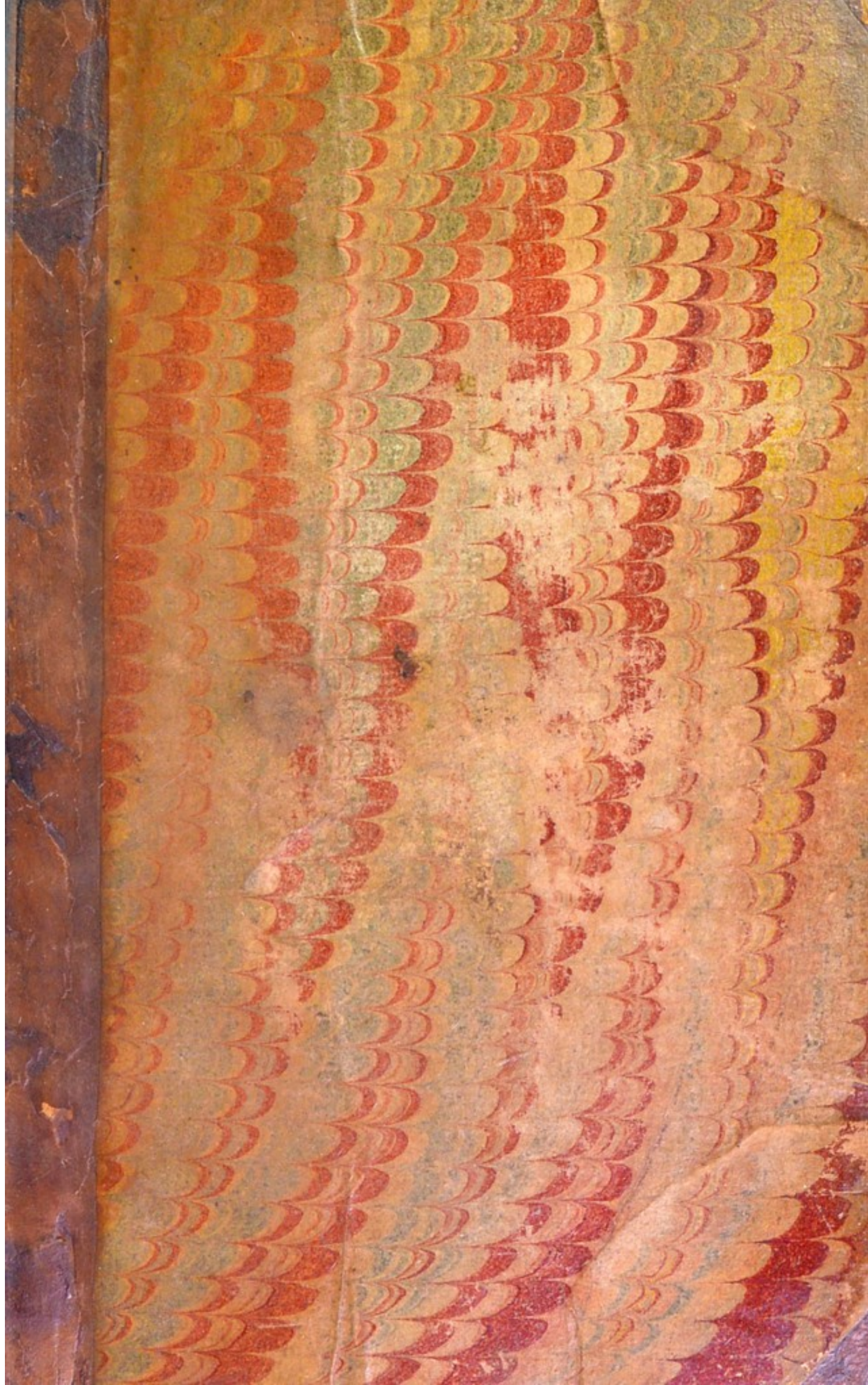
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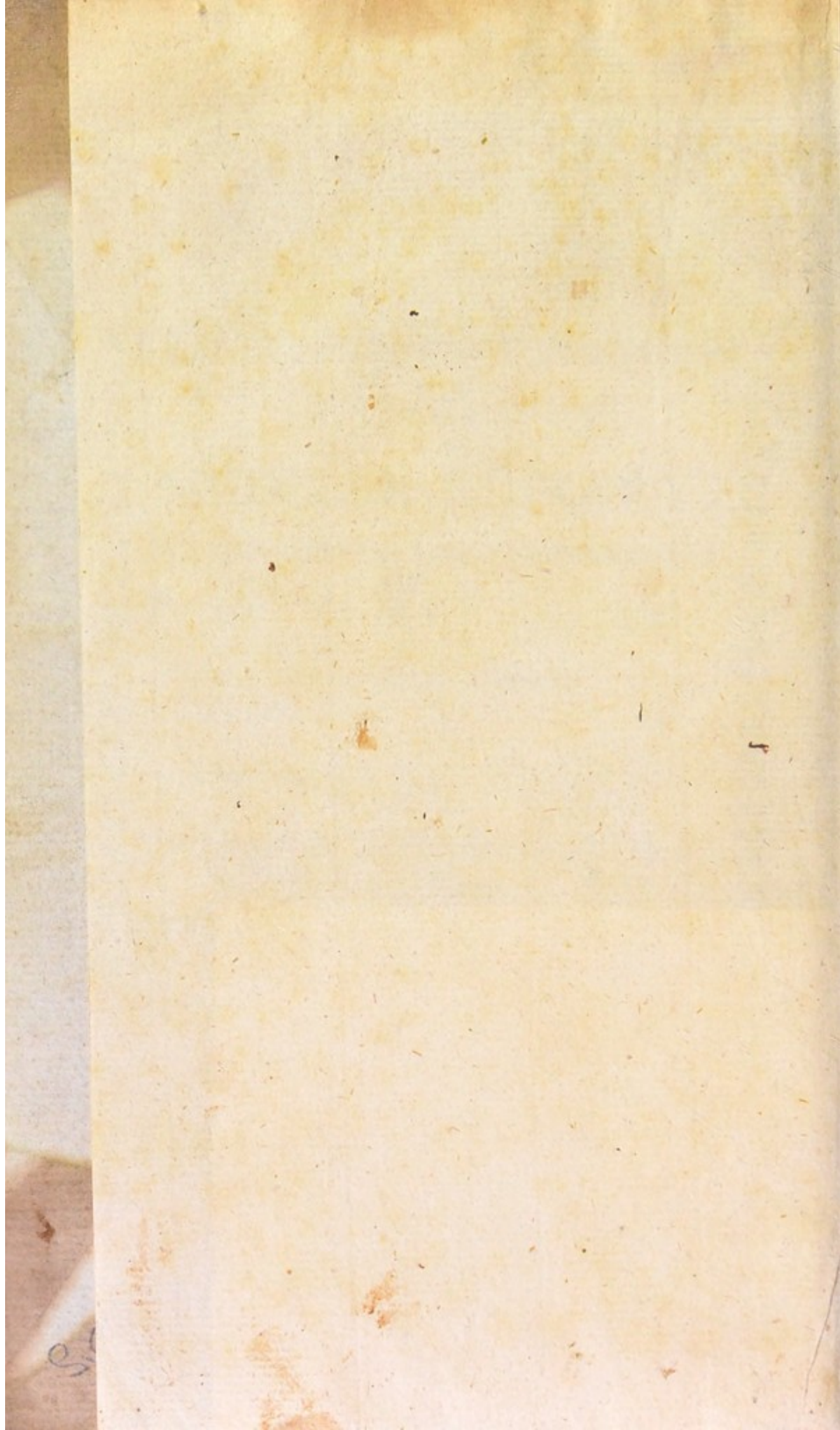
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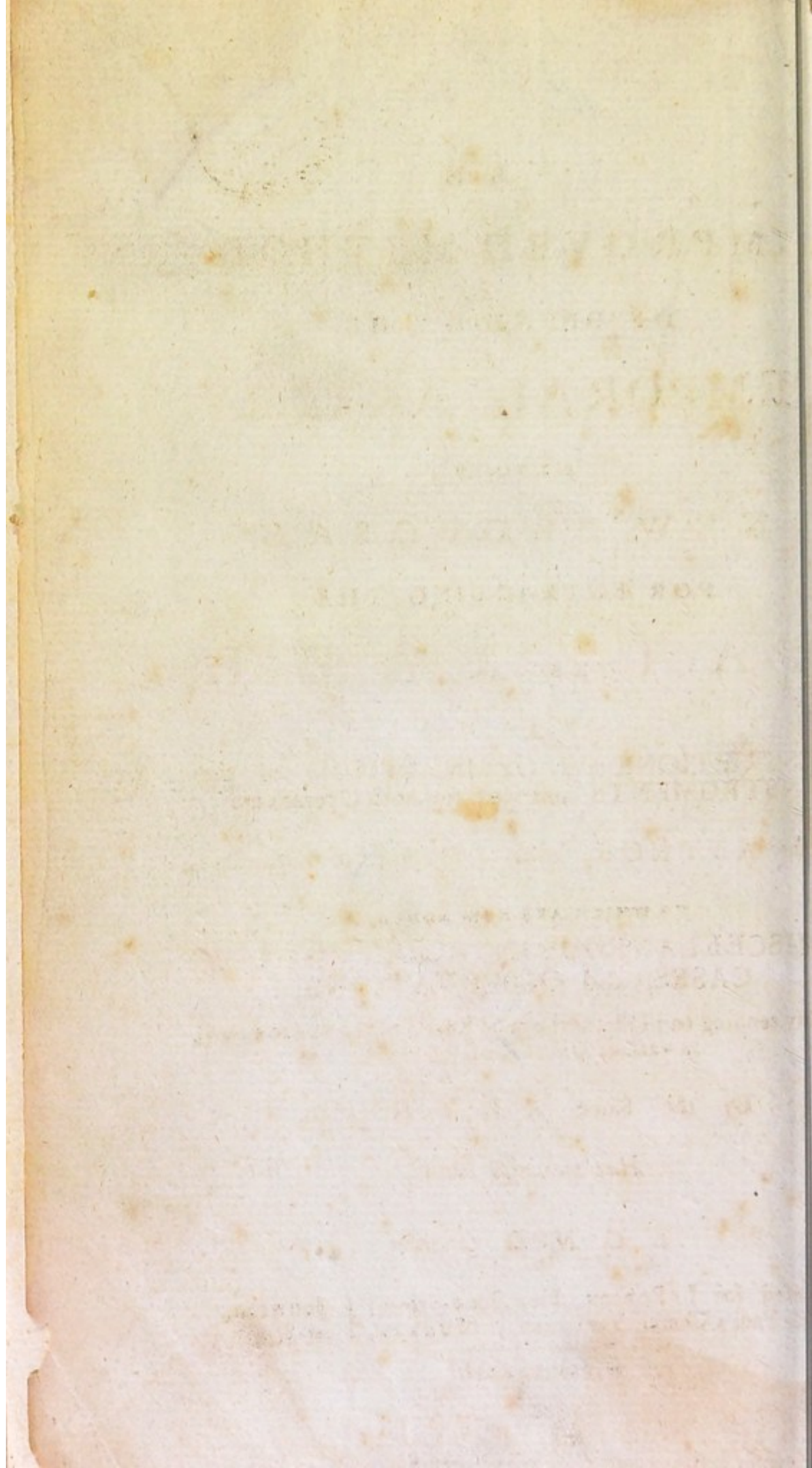


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Also Ker gates 21
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A N
IMPROVED METHOD
OF OPENING THE
TEMPORAL ARTERY.

ALSO, A
NEW PROPOSAL
FOR EXTRACTING THE
CATARACT.

WITH
DESCRIPTIONS and DELINEATIONS of the
INSTRUMENTS contrived for both Operations.

By the AUTHOR, when a Student at Edinburgh.

TO WHICH ARE NOW ADDED,
A MISCELLANEOUS INTRODUCTION, and
CASES, and OBSERVATIONS,

Chiefly tending to illustrate the good Effects of ARTERIOTOMY,
in various Diseases of the Head.

By the Same AUTHOR,

William Butler
Hæc meminisse juvat.

L O N D O N:

Printed for J. ROBSON, New Bond-Street; J. JOHNSON;
St. Paul's Church-Yard; and J. MURRAY, Fleet-Street.

M,DCC,LXXXIII.



1847

IMPROVED METHOD
ADVANCED

OF OPENING THE

THROAT TO PULPITARY

I have further to observe on
the subject of Antritis, as the
N. W. P. O. of work are
materially for such a work are
already in my possession

C. A. T. A. R. A. C. T.

I am preparing for the press a
DESCRIBED AND ILLUSTRATED HISTORY OF THE
FIRST PART OF THE ANTHROPOLOGY OF THE
TUBES ON THE KIDNEY
By the AUTHOR, who is a Student at Edinburgh
in the ANATOMY, COLLEGE
to which are now added the
A MISCELLANEOUS INTRODUCTION, and
ICASSANDER AND GESSERATIONS
Chiefly tending to illustrate the Effects of Antritis
in various Districts of the West
By the same AUTHOR
LONDON

Printed for J. Bland, New Bond Street; J. Johnson,
St. Paul's Church-Yard; and J. T. Ward, Fleet Street.

1847

THE
ADVERTISEMENT.

I Hope soon to publish what I have further to observe on the subject of Arteriotomy; as the materials, for such a work, are already in my possession.

I am preparing for the press a new and improved edition of my Treatise on the Kinkcough, with an Appendix, containing an Account of Hemlock and its Preparations.

It is but just, at this distance of time, once more to remark, that
hemlock

hemlock continues to be used for the kinkcough, and with so much success, that it may truly be considered as one of the safest, and most certain, cures in physick.

LONDON,
Lower Grosvenor-Street,
August 14, 1783.

Wm. Butter.

THE
C O N T E N T S.

A MISCELLANEOUS INTRODUCTION.

A local history of Arteriotomy, page 1

A general method of opening Arteries, p. 7

Arteriotomy has never proved hurtful, p. 12

*Patients bear the loss of blood by an Artery
better than by a vein,* ibid.

*The Author's Publication on the Stone, to
what owing,* p. 15

A new catheter described, p. 17

The Author's claim to a discovery, p. 19

Some Account of a Friend, p. 24

CHAP.

THE CONTENTS.

CHAP. I.

AN IMPROVED METHOD OF OPENING
THE TEMPORAL ARTERY, AND A
NEW APPARATUS, DESCRIBED, p. 25

CHAP. II.

MEDICAL CASES SUCCESSFULLY
TREATED, p. 49

SECT. I.

*Cases wherein Arteriotomy was successfully
employed, ibid.*

SECT. II.

*Cases wherein the Extract of Hemlock was
successfully employed, p. 111*

SECT.

THE CONTENTS.

S E C T. III.

*Cases, referred to in this work, which are not
reducible to either of the preceding sections,*
p. 161

C H A P. III.

MEDICAL OBSERVATIONS, p. 177

S E C T. I.

Of the Headach, p. 178

S E C T. II.

Of the Hemicrany, p. 181

S E C T. III.

Of the Phrenitis, p. 18

S E C T. IV.

Of the Ophthalmy, p. 185

SECT.

S E C T. V.

Of the Albugo,

p. 188

S E C T. VI.

Of the Amaurosis,

p. 190

S E C T. VII.

Of the Apoplexy,

p. 191

S E C T. VIII.

Of the Angina, or Quinsy,

p. 192

C H A P. IV.

STRICTURES ON THE USUAL OPERA-
TIONS FOR THE CATARACT: AND
A NEW ONE PROPOSED,

p. 195

MIS-

A

MISCELLANEOUS
INTRODUCTION.

I.

WHEN Doctors David Clerk and Colin Drummond introduced the opening of the Temporal Artery in the Royal Infirmary of Edinburgh, that operation was scarce heard of, as being practised in Scotland: and it was little more cultivated, so far as I could find, in other parts of the British Empire. Indeed, the opinions which prevailed, at that time, concerning this operation, various, opposite, and all of them groundless,

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are, even now, sufficient proofs of its having been, then, in general disuse. While some maintained, that little blood could be got from the Temporal Artery; others, with equal confidence, affirmed, that blood could be got in sufficient quantity, but that the stopping of it was so difficult as to render the operation dangerous. There was a third set of Speculatists, who declared, that the difficulty, or the danger, which ever it might be, was not worth encountering; as every advantage, supposed to result from the opening of an artery, could be attained by the opening of a vein. This, I say, was the state of the publick sentiments, or rather prejudices, with regard to Arteriotomy, when my learned and worthy friends began to prescribe it in the cure of diseases. I was then a student of physick in the university, and assistant to those gentlemen at the hospital. And though the per-

MISCELLANEOUS INTRODUCTION. 3

performing of operations was, of course, no part of my province; yet I voluntarily and zealously made it my business to open arteries, as often as occasion should offer, that I might be enabled to throw light on a subject, which appeared to me not only very curious, but very important.

The improvement of the operation having been my first object, I soon drew up a method of opening the Temporal Artery; which I afterwards gradually corrected from observation. After having performed this operation a good many times, I was further induced to make experiments on living dogs; with a view of prosecuting hints that could not otherwise have been cleared up. All those helps, at length, enabled me to take a comprehensive practical view of arteriotomy: and the result of my enquiries was as follows.

4 MISCELLANEOUS INTRODUCTION.

A sufficient quantity of blood can always be obtained from the Temporal Artery: and the blood can, at any time, be stopped with certainty, and with ease.

All accessible arteries may be opened without danger.

The usual methods of stopping hemorrhages are not founded on just principles.

The bastard aneurism is not a necessary consequence of a pricked artery.

The usual method of treating the bastard aneurism is capable of great improvement.

Arteriotomy is preferable to phlebotomy in the cure of diseases; and for
ns very different from those which
are

MISCELLANEOUS INTRODUCTION. 5

are assigned by the learned Doctor Freind and others.

When I took the degree of Doctor in sixty-one, I had chosen Arteriotomy for the subject of my Inaugural Discourse; in which the preceding, and other topicks, were discussed; and which I defended at my publick examination.— While that dissertation * was in the press, I repeated publicly the most considerable of my experiments; and performed others for the first time. I opened the radial artery. I also attempted to open the carotid, in a case where arteriotomy had been prescribed. I had even gone so far as to make the transverse incision: but, as the young man became faint before the artery was brought to view, I necessarily deferred the compleating of

* *Dissertatio Medica et Chirurgica de Arteriotomia.*

6 MISCELLANEOUS INTRODUCTION.

the operation till the next day. This affair instantly made much noise: and the Managers of the Royal Infirmary shewed their sense of apprehension, by desiring that I might not go on with the operation. Upon this, I told the physicians, surgeons, and others of my friends, who had honoured me with their company, that they might see the same experiment in a dog; which I had already performed by myself several times successfully; and which, I hoped, they would look upon as equally conclusive. Accordingly, having extended a dog on a table, provided with staples for securing his extremities, I made a longitudinal incision, large and deep, in his neck; and, after exposing the carotid artery fully to view, made an opening of a line and a half in length; and the blood streamed forth by jets, and to a great distance. I then stopped the blood: and the same gentlemen saw
the

the progress of the animal's recovery, which was speedy and without interruption.

Having thus given a brief history of arteriotomy as far as I am concerned in it, I shall now insert a general method of opening arteries, with descriptions of the principal instruments, extracted from my dissertation; and which it is unnecessary to translate, as it can only be useful to practitioners in physick or surgery.

II.

Ast quoniam, omni in casu, arteriam punctim vulnerare, instrumentum eâdem qua adigebatur directione, iterum retrahendo, commodissimum erit; fermentis hunc in finem aptatis chirurgus instruatur oportet. Comparentur itaque plura ejusdem formæ; quibus latera

§ MISCELLANEOUS INTRODUCTION.

tera nempe lineis parallelis clauduntur, et cuspis triangularis est. *Vid. Fig. 1.* Omnia, eâdem, qua phlebotomus vulgaris, crassitie polleant. Quoad latitudinem vero; inter se discrepent a linea dimidia ad lineam unam et dimidiam et ultra. Mucro triangulus acutissimus sit: latera parallela sint obtusa. Alterum quoque conficiatur instrumentum ex dictis minimo confimile, nisi quod secandi omnino exors est; atque ex ipsius usu Conductor appellari potest.

Hiscæ ita comparatis, atque fasciis idoneis et cæteris pro loci, quo delitescit arteria, ratione instructis, hunc in modum operationem aggrediatur chirurgus.

§ 1. Nudanda est arteria, transversa partium superimpositarum sectione.

§ 2. Punctum.

MISCELLANEOUS INTRODUCTION. 9

§ 2. Punctum, modo jam memorato, petatur vas; atque ita ut axi vasis sit parallelum vulnus.

§ 3. Arteriis, occipitali, temporali, vel etiam radiali, vulnus, quovis ferramento, infligatur.

§ 4. Quoniam vero sanguinis obturatio ab ejus principio glutinoso pendet, et hoc, pro reliquorum sanguinem componendum ratione, parvum haud semelprehendimus, ita ut exinde ipsa venarum sectio molestissima fuerit; in carotide aperienda, ferramentum lineam dimidiam tantum latum primo usurpare, et deinde, prout sanguinis crasis se habeat, ad alia recurrere aptius erit,

§ 5. Ut alterum in alterius locum rite succedat, foraminis augendi gratia, ei prius immittatur Conductor, et secundum
hunc

10 MISCELLANEOUS INTRODUCTION.

hunc expedias ferramentum majus in idem vulnus.

§ 6. Ut plurimum sanguis inter detrahendum subinde sistit: ut hoc præcaveatur, vulnus e re nata, spongia ex aqua tepida detergatur oportet; vel thrombus ilico removeatur, Conductorem vasi immittendo.

§ 7. Sanguinis missione peracta, vulneris labia sibi invicem applicentur, atque per aliquot minuta, pollice superimposito, in hoc ferventur situ. Deinde lintei carpti plica una vel altera admoveatur, superque illud injiciatur fascia idonea, cavendo, quantum fieri potest, ne vasis vulnerati diametros arctetur.

§ 8. Nulla per quatuor vel sex dies repetatur deligatio, nisi forsan relaxata fuerit; et totum hoc tempus sese omnibus abstineat

abstineat æger, quæ vel motum vel molem sanguinis insigniter adaugeant.

Atque hæc de arteriis generatim incidendis sufficiant. *Alibi quæ in primis servari debent, prout hæc vel illa arteria sit secunda, exponam* *.

III.

That I may, in part, make good this promise, I now give to the publick the following Improved Method of opening the Temporal Artery, exactly as it has stood for at least these five-and-twenty years. And I think this publication particularly incumbent on me at this time; as I find that some difficulties have lately attended the practice of Arteriotomy, which the perusers of this Method will al-

* Dissert. cit. p. 14, &c.

ways be able to prevent or remove. And though this method renders the operation perfectly convenient and manageable; yet it is but justice particularly to mention here, what cannot be controverted, that during all my experience of opening arteries at Edinburgh, even before the New Star-bandage was contrived, in not so much as a single instance was that practice hurtful either by hemorrhage or in any other way. On the contrary, I saw with pleasure that patients in general bore the loss of blood from an artery better than from a vein; and likewise that a profuse discharge by the former was never followed by that lasting languor and debility, so certainly the consequences of an equal waste by the latter. I say, I made those observations with pleasure; because they were new, and capable of being put to good use in practice.

IV.

Cases and observations are added, through an earnest desire of raising arteriotomy to its proper rank as a remedy in the cure of diseases. If several of the cases that are here published have no connection with this operation; yet they always relate to the disease in question, and tend to improve medical practice. Some, no doubt, will think that I have given too few instances of the success of this operation from my own private practice: and every reader may see, that I have not ordered it in cases where I have strongly recommended it. As to the first remark; I answer, that the cases adduced are sufficient to prove the excellencies attributed to arteriotomy: and the proof is the more unquestionable, that it is chiefly taken from the publick practice of an hospital, and where it is still upon record. For
the

the rest, I am conscious that I have hitherto done every thing in my power * for the advancement of this generous remedy. I hope that others of the profession will lend their assistance: and, if they join heartily in their cooperation, there is little doubt, that arteriotomy will now come into general use.

V.

The Paper on the Cataract is another juvenile production, which I beg leave also to deliver untouched to the publick. The strictures on the usual operations were all drawn from what I had seen. The new operation is a proposal which

* Quantumvis autem operatio hæc rationi congruat, vereor ut unquam veniat in usum, quia suasor ejus periclitatur ne per aliorum incuriam famæ suæ officiat. J. Freind. *Histor. Medicin.* L. B. 1734. p. 109.

has probability on its side; but has never yet been tried in a living subject. In the year fifty-five, Mr. Young, afterwards Doctor Young, happened, in the month of his attendance, to have several cataracts to extract at the Infirmary: and he offered to make trial of the Cutting Forceps. I can not now recollect the particular reasons for my having declined that gentleman's offer: but I shall be glad to hear when the instrument comes into the hands of any other gentleman as well qualified as he was, either for doing justice to the contrivance, or supplying its defects.

VI.

My first publication, a Method of Cure for the Stone, chiefly by Injections, took its rise from the following accident; which is the *hint* alluded to in the
second

16 . MISCELLANEOUS INTRODUCTION.

second page of that Tract. The late Doctor Whytt brought a surgeon with him one day to the infirmary, to try, whether lime-water could not be injected into the bladder, by overcoming the power of the sphincter through the force of the influent liquor: but they desisted without being able to effect their purpose. I, who happened to be a by-stander, saw that the surgeon's instrument was only a common clyster-bag-and-pipe; and that, besides, he had overlooked precautions which seemed absolutely necessary to his success. As soon, therefore, as those gentlemen were gone, I meditated measures for injecting into the bladder, in the manner which they had proposed. And in no great length of time, unassisted, and *undirected*, I brought that matter to the desired conclusion. The whole has been long before the publick: and the means, there recommended, will always fully answer the several intentions.

VII.

While I was employed in this way, it occurred to me, that, in suppressions of urine, the method commonly in use for carrying off that fluid required too much skill and address: for, as people afflicted with this disorder were too often at a distance from persons of sufficient experience to perform such an operation as it ought to be performed, I thought that an instrument, which should require little or no skill to introduce it into the bladder, might be an useful acquisition. Accordingly, to a tin pipe six inches and three quarters long, including its great end or head, and a male screw on its point (*See Fig. 2. A.*), I fitted a silver flexible pipe by means of a female screw (*See Fig. 2. B.*). This flexible pipe, exclusive of the female screw, was three inches and a half long. The two

C

pipes

18 MISCELLANEOUS INTRODUCTION.

pipes, when joined together, measured ten inches and a half; of which the head, resembling that of a clyster-pipe, made five-eighths of an inch. The bore of this pipe was about one-tenth of an inch; and its diameter was of a corresponding thickness. When this instrument was introduced into the urethra, and was pushed forwards with an equable and gentle pressure, it readily accommodated itself to the curvature of that canal, and so passed with ease into the bladder. Besides, for the convenience of such as chose to inject into the bladder by means of a pipe introduced the whole way, the head of this instrument was contrived so as either to slide upon the stopcock-pipe of the injecting bellows, or to admit of a bladder being tied upon it.

VIII.

As this introduction is of a miscellaneous nature, and, beside, treats professedly of the labours of my youth, I am naturally led to assert my claim to the having been the first in Scotland who publicly contended, that the Lymphatick Veins must be a system of absorbents. I did not take up this opinion from an accidental random experiment; nor did I catch a hint of it from any person; but drew it from anatomy, as it was then taught by the best masters. I found that lymphatick veins were demonstrated in most parts of the body*; but that lymphatick arteries were discovered in very few parts†, and, in these, only on account of a particular structure. Those veins, therefore, as they could not be supposed to be con-

* Haller. Prim. Lin. Physiolog. § 51.

† L. c. § 40.

tinued from arteries, which certainly did not exist since they were not to be seen, must of necessity be absorbents : because, all the veins, that have yet been discovered in animal bodies, are either continued from arteries, or are absorbents ; that is, begin with patulous orifices. Beside, I could see a necessity for such a mechanism, particularly in that very large secretion in the cellular membrane, in order to carry off the aqueous redundancy for the due elaboration of the fat.

Those, and other, arguments, I made use of in support of my doctrine. And, as a confirmation that I had entertained such sentiments, in the year fifty-seven, when, on a certain occasion, I was endeavouring to overturn the Boerhaavian doctrine concerning the nature and seat of the Rhumatism, I make use of those words. *Neque in arteriis tertii ordinis, sedem, quantum video, habet iste morbus: merito*

merito enim dubitatur, an, ubique in corpore, id genus vascula dentur nec ne.— Now, if it was deservedly doubted whether the lymphatick arteries existed every where in the body, this must amount to a total disbelief of those regularly descending orders of vessels, which Doctor Boerhaave was so fond of inculcating, as a structure that generally takes place. If, therefore, lymphatick arteries made no part of the general structure of the vascular system, it followed, that wherever they were found, it must be where a particular structure rendered them necessary. And, as the lymphatick arteries were found in much fewer parts of the body than the lymphatick veins, it surely required no great depth of thought to suppose the latter to be absorbents. It is rather amazing, that an inference, seemingly so natural, should have been so long of being made, that a fact, seemingly so obvious to a plain understanding, should have

22 MISCELLANEOUS INTRODUCTION.

have lien so long concealed. Indeed, I believe that truth is, for the most part, within the reach of common understandings; and that men oftener fail, in their researches after it, by indulging an oversubtilty of investigation, than from any other cause; as though, forsooth, nothing could be worth knowing that was not far fetched.

To what has been said, it will be objected, that a man may have entertained opinions in fifty-seven, very different from those which he may have held in fifty-three or four. But that my opinions were quite consistent on this subject, for those years, is proved from this, that I could have had no other rational principles for supposing the lymphatick veins to be absorbents than those which I have just quoted from Doctor Haller. And, that I actually maintained that doctrine so long ago, I give the following evidence, extracted

tracted from a letter, dated at Warwick, the twenty-eighth day of February, fifty-eight, which I received from my much esteemed friend, Mr. Thomas Beveridge. " I saw lately in one of the Reviews, an " account of A. Monro's Treatise upon " the lymphatick vessels; the discoveries in " which, they say, are strenuously claim- " ed by Hunter. But if there be none " other than what are mentioned in the " Review, I know one who has as " good a title to them as either of the two, " having, some years ago, heard the struc- " ture and use of those parts explained, in " the very same way that they are in that " specimen of Monro's book which I have " seen, by yourself, both in private and like- " wise in the society."--He means a so- ciety which held weekly meetings during the sitting of the Colleges, and was known by the name of the *Medico-Romana*; be- cause the members wrote and conversed on medical subjects, and in the Latin tongue, only.

only. This society finally broke up on the eighteenth of February, fifty-five.

I set the greatest value on this testimony of Mr. Beveridge, because he was highly and justly regarded by all his acquaintance. It is well known, that probity, candour, and judgment, were the leading marks of his character. Beside, he had not only read, but had thought and observed a great deal. Indeed his abilities were such, that he must, had he lived, have made a considerable figure: but he died not long after this in the West Indies. To conclude, I believe, in my conscience, that the following stanza, is as applicable to my late friend, as it was to the illustrious ancient.

Ergo Quintilium perpetuus sopor
Urget! cui Pudor, et Justiciæ soror
Incorrupta Fides, nudaque Veritas,
Quando ullum invenient parem?

HOR. L. i. od. 24.

C H A P. I.

AN IMPROVED METHOD
 OF
 OPENING THE TEMPORAL ARTERY,
 AND A
 NEW APPARATUS, DESCRIBED.

AS arteriotomy is highly extolled by authors of great experience, judgment, and veracity, it must be owned, that, even before I performed the operation myself, I suspected much, that no just reasons could be assigned for its present almost universal neglect. And I can now say, after having performed it a great many times, that its disuse has been owing, if not to a false theory, entirely to the unskilfulness of some operators; which produced the effects of
 daunting

daunting the more timorous, and of confirming others in their prejudices. For it could not possibly proceed from a want of success in curing diseases, where blood-letting was indicated; as, in those cases, I have generally observed arteriotomy much more effectual than phlebotomy. And I never saw any bad effects from the first, that were not owing to misconduct; and even those were so slight as to admit of a quick and easy cure.—We may, therefore, pronounce it as safe to open the Temporal Artery, at least, as any vein of the body; if the method be duly observed, which I am about to lay down, with all the candour, and perspicuity, which I am capable of.

I shall not, in order to swell this paper, and make a vain show of erudition, trace this operation from the most early accounts, and point out the various methods of doing it. It may be enough to observe,
that

that mine is different from every one of them, is very easy, very safe, and, by it, any quantity of blood can always be obtained: which circumstances, being more than can be said of any other, will, I hope, be a sufficient apology for offering it to the publick, as under:

§ 1. The patient being conveniently placed to the light, the operator sits down fronting the side which he intends to operate upon, shaves the temple, wipes it very dry, and then rubs it over with powder of chalk.

§ 2. Having discovered the artery, by its pulsation under his finger, and made a dot with ink on each side of it, (about the same height with the top of the ear) so as to leave the distance of one half, or three fourths of an inch, between them, he directs the patient's head to be held by an assistant.

§ 3. Then

§ 3. Then pinching up the skin with his finger and thumb below where he intends the incision, while the assistant does the same above, he runs a lancet through the two mentioned dots, and cuts the skin over it quite thorough.

§ 4. The operator next compresses the artery with his left thumb a little further up than the wound; wipes the wound with a bit of sponge wrung out of cold water; and, having thus got a distinct view of the artery, opens it in a longitudinal direction, and with an elevation of the point of his lancet.

§ 5. Having drawn the proper quantity of blood, he brings the lips of the wound together, applies two or three folds of charpee to it, and fixes the bandage upon that; but so, that the pulsation may be felt equally free through the ramifications

tions of the Temporal artery after, as before, the application of the bandage.

Though I have pointed out a particular place for opening the temporal artery (§ 2); yet, in general, that vessel ought to be opened wherever its pulsation is most conspicuous. Sometimes, indeed, it is difficult to discover it by its pulsation. This much oftener arises from the deep situation, than from the smallness of the vessel. If the pulsation be faint and circumscribed, it is a sign that the artery is small, and that its situation is not deep. If the pulsation be more diffuse, it may be taken for granted that the vessel is not small; but that the apparent weakness of its action is owing to the thickness of the skin and fat, and sometimes, beside this, to its being covered by that membrane which Winslow calls *calote aponeurotique*, the aponeurotick cap.—In the last case, the operator may proceed notwithstanding the seeming weakness

weakness of the pulsation ; and, after having made the transverse incision, and wiped away the blood (§ 4), he will then see the throbbing of the artery through the tense aponeurotick membrane. And, finally, he may cut both the membrane and the artery at once, by a longitudinal incision; or each separately, to wit, the former in a transverse, and the latter in a longitudinal direction: both which methods I have used with success.—When the artery is small, the operator must take care to open it sufficiently : and then he is to assist the flowing of the blood by the application of a cupping-glass—The same method is proper, where the artery, though big enough, has not been rightly opened at first; and the orifice cannot be enlarged afterward, as the operator's view is disturbed by the trickling blood. But, I believe, the necessity of cupping, on account of the smallness of the vessel, will rarely happen (at least it has never yet happened to me);

me); and the other case as seldom to an operator who keeps very sharp lancets: and this is absolutely necessary; for arteries are, in general, more loosely connected to the neighbouring parts than veins, and their coats are also more elastick. However, in most cases, a speedy evacuation (if that should be preferred to a more slow discharge) is greatly promoted by the Cupping-glass: and the following circumstance, relating to the use of it, merits particular notice. The blood, if the air has been much exhausted, ceases to flow: which stoppage is owing to the compression of the artery, partly by the instrument, and partly by the distention of the surrounding cellular substance. The rule, therefore, is, to exhaust the air but moderately; and to raise the cupping-glass gently from below, so that still no air may enter: and then the blood flows briskly.

The

The cutting of the skin, previous to opening the artery (§ 3.), is so absolutely necessary, that I am inclined to think, that those authors, who order an artery to be opened in the same way as a vein, have had but very little experience of the matter; for, if you endeavour to cut both the skin and the artery at once, you will readily fail in the attempt, at least of opening the vessel sufficiently: and repeated punctures so fatigue and dispirit the patient, that he cannot afterward bear the loss of so much blood as otherwise he could have done; nay, he will sometimes be apt to faint, before a single ounce is drawn. Whereas, according to the method here recommended, the artery is not touched till once a distinct view of it is got: and then it is opened with scarce any pain to the patient. However, it must be observed, that, even in this way, the artery often ceases to bleed; which is owing to the gradual formation of a grumous plug
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in its orifice. But this inconvenience is easily prevented, or removed, by wiping the wound, from time to time, with a sponge wrung out of warm water; or by introducing the point of a probe into the orifice. And the not adverting to this circumstance seems to be a chief reason, why some imagine that little blood can be got from the temporal artery.

By pressing the artery with your thumb, previously to its being opened (§ 4.), it is not only kept from shifting, but also its pulsation is rendered more evident. But care should be taken that the skin is not pushed, by this pressure, out of its natural place; which is almost the only circumstance that can render the continuance of it necessary during the flowing of the blood.

The wiping of the wound with a cold wet sponge brings a stricture upon the

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wounded

wounded vessels; and so prevents the further efflux of blood, by which means the artery is exposed fairly to view. It may, however, be worth while to remark, that the patient's blood is sometimes so thin, that it oozes in considerable quantity from the whole surface of the incision. In such a case the assistant is directed to wipe off the blood, and, immediately as he removes his hand, the operator plunges his lancet into the artery: or the operator himself may wipe the wound with a bit of linen rag wet with alcohol; which seals up the orifices of those small vessels, till once he has opened the artery.

It is evident, from what has been said, that there is one inconvenience which an operator should wish to shun, when he makes the transverse incision (§ 3.); and that is, the hurting of the artery by the shoulder of his lancet: for, when this happens, the vessel does not bleed freely; while,

while, at the same time, it constantly pours forth as much of its contents as are sufficient to obscure its situation, and so not only retard the operation considerably, but render its success precarious. It is most difficult to obviate this accident in fat patients; because, in them, the skin cannot be easily pinched up. It is, however, accomplished, by making the transverse incision with a lancet that differs from a common lancet in having one of its sides to the very point quite straight. *See Fig. 3.*

The size of the transverse incision (§ 2.) should be more or less, according as the cellular membrane happens to be more or less distended with fat.

The artery is opened in a longitudinal direction (§ 4.); because, by a transverse incision, it might be cut entirely through; which is one of the methods used for stopping blood.

When I first began to open the temporal artery, hemorrhage was no infrequent consequence of the operation. This inconvenience I imputed to the use of the bandage commonly recommended. I, therefore, contrived a new star-bandage: and, from my experience, it is preferable, in every respect, to the old.

The wound always heals by the first intention. At least I never saw it do otherwise in my practice; except once that it came to suppuration, and continued running, like an issue, till I discovered the cause to be the great pressure of the new bandage upon the wound. But being then of the common opinion, that a very considerable compression was absolutely necessary for stopping the blood, to prevent any remarkable suppuration for the future, I applied the machine below the wound: and this precaution had the desired effect. Soon after, however, I had
reason

reason to suspect, that no great compression was necessary for stemming the blood; as I found, that the patients themselves sometimes slackened the bandage so far, that it could have little more effect than just to keep the dressings upon the wound; notwithstanding which, the artery did not bleed. Upon observing this, I applied the bandage directly to the wound; but so that the circulation could not be disturbed by it; for the pulsation was felt equally free through the ramifications of the temporal artery after, as before, the application of that bandage. And, as this sufficiently answered the purposes both of preventing a hemorrhage and supuration, I have since continued the same practice; and do now, after a number of trials, recommend it to others (§ 5.).

From the different circumstances that may be gathered through this paper, it appears to a demonstration, that the blood

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is stopped by a plug blocking up the wound made in the vessel; and that all the bandage does, is to support this plug, and keep it in its place, by hindering it to give way so easily to the resistance from within. As a further proof of this, I have taken off the bandage an hour or two after it was applied, and made the patient sit for a considerable time, having nothing but the charpee upon the wound, without any hemorrhagy happening. In these cases, the mere adhesion of the lint was a sufficient support to keep the plug, or grume, in its place. Hence that trite, and seemingly unanswerable, objection to arteriotomy, namely, the great necessary compression after the operation, is fairly exploded; as it is evidently founded on the want of experience, and on the ignorance of the true method by which the blood is stemmed. Our wonder at the frequent practice, among the Egyptians, of opening arteries in different parts of the

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the body, without any bad consequence from the operation, may now likewise cease.

In general, I find Ambrose Paré's observation to be just, that the wound is healed in four or five days. But I would advise that the bandage be kept on a day or two longer, to prevent one other troublesome accident; and that is, what authors call, a bastard aneurism. It is owing to an effusion of blood from the artery into the surrounding cellular substance; which, not getting access through the skin, now healed up, gradually stretches it into a tumour. This disorder is cured by the following treatment. Having, with your thumb, compressed the artery below, cut off the sac close by the surface of the skin (never touching the vessel) with a sharp scalpel; then dress the wound in the same way as after a recent bleeding: and

and it is generally healed in much the same time, that is, in five or six days.

I have mentioned a bandage for stopping the blood after this operation. Order requires that I give a description of this instrument. To convey a more clear conception of it, I shall begin with describing all its parts separately; and then shew how those different parts constitute the whole.

THE DESCRIPTION OF THE NEW- STAR-BANDAGE.

The basis of this instrument is two cylindrical rings of thin brass, which just slide the one within the other. From their position they may be called the external and internal rings. They are each four tenths of an inch long. The external ring is eight tenths of an inch
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OPENING THE TEMPORAL ARTERY. 41

in diameter; and the other, of course, is somewhat less. The lower brim of the internal ring is formed into a female screw. There are also two pointed prominences, in the same streight line, upon this ring, corresponding to a longitudinal groove in the external ring.

Secondly, upon the upper end of the external ring, is soldered a plate with four equidistant appendages; each of which contains a transverse slit, six tenths of an inch long. This plate, exclusive of the appendages, is circular, and an inch in diameter; but, including the appendages, it is an inch and four tenths broad. This, which from its situation may be called the superiour plate, has a central hole.

Thirdly, the internal ring has a plate affixed to each end; the one, by folder; and the other, by a screw. The former, which from its situation in the constructi-

on

on of the instrument, may be called the middle plate, corresponds exactly, in shape and width, to the diameter of the ring; and has a female screw in its center. The other plate, which is called the inferiour, as being the lowest in the machine, is an inch and two tenths broad, and circular. It has a number of small holes round its edge, for the purpose of affixing a bolster, if thought necessary. A ring is foldered to the inside of this plate two tenths of an inch in length. It is a male screw; and corresponds to the female screw which terminates the internal ring.

Fourthly, there is a steel screw which, with its neck, measures seven tenths of an inch. The proportional length of this screw to its neck is as nine to five. The part of the neck, next the screw, is round, and of a length equal to the thickness of the superiour plate. The rest of the neck is angular, and adapted to a central hole

in

OPENING THE TEMPORAL ARTERY. 43

in a round flat brass button for a handle. This handle is kept on by a screw-nail passing through the axis of the neck. A similar nail is lodged in the lower end of the screw.

THE METHOD OF CONSTRUCTION IS AS UNDER.

The screw, being stripped of its nails and handle, is introduced into the female screw of the middle plate. The nail is next put into the bottom of the screw: and then the inferior plate is screwed on. This ring is now lodged within the external ring: and the neck of the screw, appearing through the superior plate, is fitted with its handle. The head of the nail in the lower end of the screw, being broader than the screw itself, hinders the external ring to be pushed off the screw altogether. The prominences are to
confine

confine the internal ring to a simple progressive and regressive motion.

The machine, thus constructed, weighs about ten drams and a half avoirdupois. It is delineated in the following figure, with the superiour and inferiour plates at their greatest distance from one another.

FIG. IV.

A. The external ring.

B. The internal ring.

C. The superiour plate.

D. The inferiour plate.

E. The handle of the screw.

FIG.

FIG. v.

This figure exhibits a view of the bandage full-mounted, with the plates as near to one another as they can be brought.

Four straps of linen tape are observable; of which two are long, and two are short. The short ones have each a small buckle at their extremity. They are also fixt to the machine by means of buckles: for, as it is intended that they should reach the opposite temple, and no further, they must be of different lengths in different subjects; and, therefore, buckles are necessary to shorten or lengthen them at pleasure. As it is not requisite to assign exact dimensions to the other two straps, or fillets, they are sowed to the flits; and are also long enough to answer in every case.

DIREC-

DIRECTIONS FOR APPLYING THE
BANDAGE.

The operator is to place the bandage, mounted as in the last delineation, upon the dressing (§ 5.); so that one of the short straps may pass round the forehead, and the other over the head, to meet the opposite straps, the one coming round the hind head, and the other from below the chin: and, while he is buckling those on the temple, an assistant should keep a hand on the machine, that it may not shift from its place.

The more effectually to secure the bandage, a bit of tape may be extended between the fore and hind head, and pinned to each of the straps in its course.

Lastly, the bandage is brought to a proper degree of tightness, by slackening the buckles, or turning the screw, according as the case shall require.

N. B.

N. B. In my first contrivance, the middle plate was wanting; and the two others were foldered on. The screw was of one piece; it moved upon the superiour plate, and was fastened to, but yet moveable in, the inferiour plate. This construction is liable to some inconveniencies; which are obviated by fixing the male screw, as in the machine so fully described above.

CHAP.

C H A P. II.

M E D I C A L C A S E S
S U C C E S S F U L L Y T R E A T E D.

S E C T. I.

C A S E S W H E R E I N A R T E R I O T O M Y W A S
S U C C E S S F U L L Y E M P L O Y E D.

All the Cases preceding the year sixty
are extracted from the Records of the
Royal Infirmary of Edinburgh.

C A S E I.

A Scrofulous Ophthalmia relieved.

THOMAS M'KURSEY, aged nine-
teen years, of a scrofulous habit,
has always been much troubled with sore
eyes: and, for a month past, both his eyes
E have

have been inflamed. There is a thickness all over the right cornea: and some parts of the left are also offuscated; but, opposite to the pupil, it remains quite clear. The right eyelids are much swelled; and he can scarce separate them without the assistance of his hands, upon account of great pain in the upper one. Both his eyes water a great deal: and he has considerable heat, and pain, in them. With the right eye, he can only distinguish light from darkness. He sees very well with the left eye; but it is very weak, cannot bear much light, and sometimes a mist comes before it. His nose is swelled, and sore internally, since his eyes began to be affected. His upper lip is also a little thickened. For some years his hands have been swelled: and the skin of them is a little rough, or hard, but there is no pain, or discolouring. His belly is regular. —He has been bled, and has used purges, blisters,

blisters, eye-waters, and ointments, without advantage.

In the course of four months, and upwards, he tried a great deal of means, in this hospital, with very little relief. He was bled several times at the arm and neck, and once at the ankle, with the lancet. He was often bled at the temples with leeches. A seton was put in his neck. He used a great variety of purges, also blisters, great and small, for his head, eye-waters, and ointments, mercurial snuffs, warm bathing for his feet, a course of mercury, so as to promote a gentle spitting, sea-water, and lime-water.

October 19, 1752. The right eye is better; but the left is much inflamed, and painful.

Let the left temporal artery be opened.

October 21. His head and eyes are easier since the blooding.

October 22. His eyes are better, than they have been, for several days.

October 24. The artery broke open last night; and he lost above eighteen ounces of blood from it, and about eight more this morning.

October 25. He continues better.

October 30. He lost about ten ounces of blood by the artery last night. His headach is gone: and his eyes are a great deal better.

November 7. His eyes continue better. —From the opening of the temporal artery to this time, no other new remedy was administered. He drank lime-water, as usual, every day; and got four of his purges at proper intervals.

C A S E II.

A Headach cured, partly, by Arteriotomy.

David Frazer, aged twenty-two years, for about six weeks has been subject to violent pain of his head, but affecting, chiefly, the fore and back part of it. His pulse is slow. He has no other complaint. His appetite is good. His belly is natural. —He has been bled, and has got two vomits, without advantage.

For the first three weeks after his admission, into this hospital, he was bled at the arm, a seton was put in his neck, and a large blister was applied to his head. He also used some doses of rhubarb.

October 16, 1752. He is no better.
Let the temporal artery be opened.

October

October 17. Twenty ounces of blood were drawn from the left temporal artery last night. His pulse was full and quick at the time, and did not sink much with the bleeding. The headach was relieved by the operation, but returned afterwards. He fell into a sweat this day at eleven: and it continues. His pulse is full, soft, and quick.

Let him have the Diaphoretick Draught* immediately; and let him drink plentifully of warm thin liquors.

October 18. He sweated yesterday till the evening. His headach is easier. His pulse is calm, and not low.

Mix equal parts, of the Spirit of Nitre and the Peruvian Balsam together: and let

* All the Compositions, ordered, like this, only by name, are to be found in the Pharmacopoeia Pauperum of the Royal Infirmary.

his forehead be rubbed with a little of the composition, evening and morning.

October 19. His head was much relieved for some time after the application: but the pain grew bad again. His pulse is a little quick.

Let eight ounces of blood be taken from his arm; and let equal parts of powdered mustard seed and the crum of bread be made into a poultice with strong vinegar, and applied to his soles at bed-time. Continue the Balsam.

October 20. He was better all night while the poultices were at his feet.

Let the poultices be renewed at night, and continued all day to-morrow.

October 21. The poultices were of no service in the night: and they were, therefore, taken off in the morning. His pulse is calm, and not low.

Con-

Continue the balsam; and repeat the arteriotomy.

October 22. He went out yesterday; and the artery broke open of its own accord, and discharged, as was supposed, three or four pounds of blood, before it was stopped. His head is no better. His pulse is a little quick, and not very low.

Continue the balsam.

October 23. The headach is still bad: and is worse in the afternoon. The application relieves it for a little.

Let him take an ounce of the Bitter Tincture of Rhubarb, and half an ounce of the Sacred Tincture, mixed, to-morrow morning.

October 24. Let him take half a dram of the following Electary every hour, beginning early in the morning.

Take of the Peruvian Bark, finely powdered, an ounce; crude Sal Ammoniac, in powder,

powder, a dram; and a sufficient quantity of the Syrup of Lemon-juice.

October 26. The artery bled twice last night. His head is a good deal better. Continue the Electary.

October 27. The headach is almost gone. He has a sensation of heaviness in his stomach.

Omit the Electary.

October 29. The headach is quite gone. The artery discharged eight ounces of blood yesterday. He is costive.

Let him have the Domestick Clyster.

In the course of the eight following days, the artery burst open six different times; but the quantity of blood lost is not mentioned.

November 24. The artery is healed up: and he has been free from complaints
for

for some time; only for a day or two he has not made his water freely.—For this complaint he was detained ten days longer; and was cured by the use of Linseed tea, and ten drops of the Essential Oil of Juniper twice a day. He also used, once, a warm bath up to his middle.—He was then troubled with a pain in the small of his back; for which a blister was applied. After this, he was dismissed in good health.

C A S E III.

An Ophthalmia cured.

JAMES BROWN, aged forty-one years, for six weeks, has been subject to inflammation of both his eyes, for which he can assign no cause. At present, his eyes are very red; but there is no great pain, or heat. His eyes water a great deal, and cannot bear much light. He has not been
able

able to distinguish one face from another these three weeks. He has no other complaint. His pulse is calm. His appetite is good. His belly is natural.—He has been bled at the arm to twelve ounces, has been twice blistered, and has had three doses of physick, within these three weeks. A seton was put in his neck the day before he came here.

June 2, 1753. Two pounds of blood were taken from the Temporal Artery, yesterday, without occasioning faintness: and the inflammation, all to a little on the left eye, disappeared during the bleeding. He continues as well to day. There is a small speck on each eye.

Let the left eye be fomented, four times a day, with warm spirit of Minderer: and let him have twenty-five grains of the Mercurial Laxative Pills every other night.

June

June 13th. The inflammation and pain of his eyes are entirely gone. The specks still remain: but the pupils are pretty free; and, he says, he sees as well as ever he did.

He is desired to keep his issue running for some time. He is to leave the hospital to-morrow morning.

CASE IV.

A Headach, and Ophtbalmy, cured.

ANN MAY, aged nineteen years, ten weeks ago, after catching cold, was seized with a violent headach, and inflammation of both her eyes; which complaints continued much the same till within this fortnight, when she was bled, at the Temporal Artery, to twenty ounces in this hospital. Immediately before she was bled, the headach and inflammation were severe; her eyes watered a great deal, and could

could not bear the light; and were so dim, that she could not distinguish faces, even when near her. She also complained of floating appearances before her eyes. —All these symptoms were greatly relieved during the bleeding. The inflammation of both eyes disappeared, and she fainted after the quantity mentioned was drawn. —Upon coming to herself, she said, that her headach was gone, that her eyes were quite easy, that she could distinguish faces and colours with ease, and that she could perceive no remains of the floating. Specks were now discovered on each eye. —She continued thus without any complaint, except dimness, the consequence of the specks, and weakness of her eyes, till two days ago: since which, her head and eyes have been affected as before, though in a much less degree. The specks are now greater.—She has large glandular swellings under the lower jaw, of the same standing with her other complaints.

plaints. Her appetite is good. She is sickish after meals. Her pulse is calm. She is regular in her menses. Her belly is natural.—Before the artery was opened, she had been bled both at the arm and neck, had been blistered, had got several purges, and had a seton put in her neck, all without advantage.

June 19. Twelve ounces of blood were drawn from her Temporal Artery; and she is better since.

In a few days, there were very little remains of the inflammation: but she continued, for several weeks, in the hospital, on account of the specks and glandular swellings. She chiefly used the Mercurial Laxative Pills; and received great benefit from them.

CASE

C A S E V.

An Ophthalmy, and Hemicrany, cured.

JOHN SHAW, aged twenty-seven years, three weeks ago, received a stroke, with the bit of a bridle, upon the left eyebrow, more internally than its middle. The bruise, and wound, being very inconsiderable, healed in three days: but, immediately after the blow, the left eyelids turned livid, and the eyeball became bloodshot; and continued so, without pain or disturbing his vision, for two days. Afterwards the inflammation increased, and was attended with violent pain of that eye, and inability of both eyes to bear the light: and, in six days, he lost entirely the sight of the left eye. The left eyeball and eyelids, still continue inflamed: and the whole eye is greatly swelled. The luid cornea forms an unequal, prominent,
and

and opake tumour. This eye waters muc; and discharges also a good deal of gross matter, and has done so from the beginning of the inflammation. He has had no pain in the eye these eight days: but, for this fortnight, he has been subject to pains, which are sharp and shooting at times, affecting the whole left side of his head, and, sometimes that side of the neck, but chiefly the ear and temple. His appetite is not very good. He is costive.—He was bled, got one purge, and fomented the eye with a decoction of Chamomile, immediately after the accident; but has never used any thing else.

July 1, 1753. Let blood be taken from the left Temporal Artery; let an emollient poultice, with the Spirit of Minderer, be applied to the eye; and let him take a scruple of jalap, with seven grains of calomel, to-morrow morning.

July

SUCCESSFULLY TREATED.

63

July 2. Twelve ounces of blood were drawn from the artery last night, which removed the pain of his head immediately, and entirely; and diminished much the swelling and redness of the eye. He was even relieved before four ounces were taken. He was neither sick nor faint with the bleeding. He continues better to day.

Let the poultice be continued.

July 4. He had six stools with the physick. His eye is more painful to day.

Continue the poultice; and repeat the purge to-morrow.

July 7. Continue the poultice; and repeat the purge to-morrow.

July 10. The inflammation is much abated.

Continue the poultice.

July 13. The eye is more painful and inflamed. The pulse is quick.

Continue the poultice. Repeat the arteriotomy and the purge.

July 14. The purge operates.

July 15. The artery was opened to day: the eye was sensibly better before three ounces of blood were drawn; and it grew paler and paler till twelve were taken; when he became sickish, but did not faint.

Continue the poultice.

July 18. Continue the poultice; and repeat the purge to-morrow morning.

July 20. Continue the poultice; and repeat the purge to-morrow.

He was then dismissed free from all symptoms of pain or inflammation.

CASE

C A S E VI.

*A Fever from Cold. The violent Headach
cured, partly, by Arteriotomy.*

JOHN WHITTAL, aged twenty-six years, for these eight days past has been subject to severe headach, hard, dry cough, pain and oppression at his breast, great heat and thirst, with a severe looseness. His pulse is soft, and not very quick. —He imputes his complaints to cold. Hitherto little has been done for them.

January 26, 1754. He is much as yesterday. His pulse is a little quick, and oppressed. Let him be bled at the arm to twelve or sixteen ounces: and, afterwards, let him have the Pectoral Bolus.

January 27. He is no better. He did not sweat. The looseness continues.

His pulse is quick, and soft. His blood was not inflamed.

Let the temporal artery be opened as soon as possible; and let a blister be applied to his back, after he has been bled. Continue the Bolus

January 28. About sixteen ounces of blood were taken; when his pulse failed, but he did not faint. The blood is thick without the inflammatory crust. He is very stupid; and seems to be much as yesterday. His pulse is low.

Continue the Bolus: and let blisters be applied to his ancles.

January 29. The looseness continues. He is still stupid, though not delirious. He coughs little now: but the pain of his breast continues. His pulse is fuller and a little hard.

Continue the Bolus.

January

January 31. The looseness was severe in the night. His cough is dry, and frequent.

Continue the Bolns.---Let him take a tea-spoonful of the Pectoral Lohoch, as often as the cough is troublesome.—Let him have the White Decoction for common drink.

February 1. His looseness and thirst are less. His cough is easier. His pulse is not low, and but little quick.

Continue the same method.

February 2. He is every way better. His pulse is almost natural.

Continue his medicines.

February 7. He had three loose stools in the night. His cough continues.

Continue the same course.

February

February 11. All his complaints are gone ; but the cough, which continues severe.

Omit his medicines. Let him take two large spoonfuls of the Lac Ammoniacum every night and morning.

He continued this medicine till the twenty-sixth current, when he was dismissed in good health.

C A S E VII.

An Ophthalmy relieved.

JOHN ROSS, aged thirty-two years, for these six weeks has been affected with inflammation of his left eye. At present there is an offuscation of the cornea lucida. That eye cannot bear the light ; nor can he distinguish colours by it. He is otherwise well. He never was subject to sore eyes formerly : and he can assign no cause for the
the

the present inflammation.---He has been bled at the arm, and both jugulars, has been blistered, and has used eye-waters, poultices, and ointments to the eye, without advantage.

June 8, 1755. The left Temporal Artery was opened about an hour ago. Before two ounces of blood were taken, his eye was relieved: and he fainted, when eighteen were drawn. His eye continues better.

June 9. The pain of his eye is gone; and the inflammation is less.

Let a poultice of bread and milk, sprinkled with warm Spirit of Minderer, be applied to his eye, and renewed every night.---Let him have a scruple of the Mercurial Laxative Pills, every other night.

June 16. His eye is better. He has, commonly, three stools from the pills.

Con-

Continue the pills and the poultice.

June 17. His eye is more inflamed.

Continue the pills and the application.---Let twelve ounces of blood be taken from the jugular vein.

July 2. His eye is better.

Continue the same course.

August 10. The pills do not purge.

Omit the pills: and let him take half a dram of the pills called *cochiæ* to-morrow morning.

After this he took two purges of Jalap and Calomel; and went out, on the twenty-second of the same month, free from complaints; except that a small speck remained on the cornea.

CASE

C A S E VIII.

An Ophthalmy,

MUNGO MURRAY, aged twenty-two years, since February last, has been subject to inflammation of his left eye, which has been better and worse at times. At present, the inflammation is considerable: and the eyelids are swelled. The cornea lucida is offuscated. His eye is very painful, waters a great deal, and discharges also much gross matter. He cannot open the eye without the assistance of his hand: and, when he does open it, he can scarce distinguish the brightest colours.—Since the beginning of the ophthalmy, the left brow and temple have been affected with pain. His pulse is full, and quick. He is otherwise well; except that he has been affected with a dryness, and heat, in his nose, since about the time that his eye became
first

first bad; and that he is troubled with a dry, itchy, eruption of two months standing.— He imputes the disorder of his eye, and nose, to cold; and thinks that the eruption proceeded from the drinking of runnet-whey.---He has been bled twice, and has used purges, eye-waters, and ointments: all which means gave relief at the time.

July 16. The Temporal Artery was opened this forenoon; and he fainted when six ounces of blood were drawn. But, before the half of that quantity was evacuated, the pain of his eye was much relieved, the inflammation was considerably abated, and he could open the eyelids, and perceive objects better. He has been continuing easier since. His pulse is still full, and quick.

Repeat the arteriotomy in the evening; and let him have twenty grains of Jalap and six of Calomel to-morrow morning.

July

July 17. Ten ounces of blood were evacuated by the same orifice. He continues much better.

July 20. His eye is more painful to-day.

Let him bathe the affected eye often with warm Spirit of Minderer: and let the purge be repeated in the morning.

July 22. His eye is better. The purge operated well.

Continue the Spirit; and repeat the purge to-morrow morning.

July 25. His eye continues better.

Continue the spirit; and repeat the purge to-morrow.

July 27. His eye is much better. He has sometimes vomited and purged with his physick.

Con-

Continue the application; and let him take half a dram of the Mercurial Laxative Pills, every other night.

August 1. He continues better.

Continue the same course: and let a seton be put in his neck.

August 15. His eye is still inflamed. He has commonly four stools with his pills.

Continue the same method; and apply two leeches to the left temple.

August 16. He bled plentifully.

Continue the spirit and pills.

September 9. His eye is more inflamed.

Continue the same course; and apply two leeches to the lower eyelid of the affected eye.

October

October 4. Having no complaint but gripes, all his medicines were omitted: and he got half a dram of rhubarb, at bedtime, previously to his dismissal.

C A S E IX.

An Amaurosis cured.

CHRISTIAN WIER, aged twenty-five years, was seized, a fortnight ago, with violent headach; which, in ten days, was suddenly accompanied with great swelling, and inflammation, of the right eye. All those complaints still continue the same. She has seen none with the right eye, since it became first affected. The right eyelids cannot be opened. There is a constant discharge of gross matter from that eye.-- Since the headach began, she has all along been subject to pain of her back, sickness, great thirst, and heat, with costiveness.

She

She is troubled with a cough of a twelve month's standing.

She can give no cause for her complaints. Hitherto nothing has been done for them.

She has been deprived of the sight of her left eye, for these seven years, through an Amaurosis; which came on suddenly after a fever.

July 19, 1755. Let a pound of blood be taken from her arm immediately. Let the right eye be bathed with warm linseed-tea, and afterward covered with the Saturnine Ointment, spread on linen.

Let her have the Decoction of Tamarinds, with a triple quantity of Sena, tomorrow morning.

July 23. Her eye is easier. She complains of the headach, and of pain in her side and back. Her pulse is quick. She is costive.

Let

Let her be bled, at the ancle, to ten ounces.

Let her have the Purging Clyster after she is blooded; and the Diaphoretick Draught at bed-time.---Continue the applications.

July 24. Her head and eye were very little relieved by the bleeding.

Let the right Temporal Artery be opened.

July 25. The Artery was opened about two hours ago; and six or eight ounces of blood were drawn, when she fainted. Both her head and her eye were relieved, before the half of that quantity was taken; and she continues a good deal easier.

Continue the dressings.

July 26. Her head and eye grew worse last night.

Continue the applications; and let her have the Purging Clyster.

July 31. The headach, and pain and inflammation of her eye are still worse.

Repeat the arteriotomy, and the Purging Clyster.

August 1. She was bled at the left temporal artery last night: and not only the headach and inflamed eye are much better, but she can also distinguish the brighter colours with the left eye, since that time.

Soon after this a Seton was put in her neck. And after continuing in the hospital, about a fortnight longer, chiefly on account of her cough, she went out, enjoying a good degree of sight from the left eye, which had been so long totally dark. The sight of the right eye was quite lost, through the thickening of its coats, and the confusion of its humours.

C A S E X.

A Headach cured.

Marion Riburn, aged forty years, since the middle of last April, is greatly distressed with headach, for which she can assign no cause. She had no other complaint till about eight weeks ago, that it began to be attended with deafness, pain and noise of her ears at times, and a dry eruption over her whole body; which complaints still also continue. And, for these three weeks, she is affected with scotomy. The pain affects chiefly the opening of her head, forehead, and temples; and is worst in the night. It begins as soon as she lies down; and continues bad till she rises in the morning. She complains of wind in her stomach; which she imputes to the use of a great many medicines for the headach. She is also troubled with the he-

G

morrhoids

morrhoids for these six weeks; and with pains in her joints for these eight days. The hemorrhoids are both external and internal; and bleed frequently. Her appetite has been bad since the eruption began. Her belly is bound. She has no other complaint. She has hitherto found no relief from medicine.

August 6, 1755. Let her take half a dram of the Stomachick Pills to-morrow morning.

August 8. Let the temporal artery be opened.

August 10. Four ounces of blood were taken from the Temporal Artery, about eleven this forenoon, when she fainted. The pain left her head while the blood was running: and she has kept free from it since; except now and then that it shoots a little.

August

August 11. Repeat the Pills, with seven grains of Calomel, to-morrow morning.

August 13. She had three or four stools from the pills. Her head is worse to day. Her pulse is quick, and fuller, since yesterday.

Repeat the arteriotomy.

August 15. Six ounces of blood were taken to day from the occipital artery *; which evacuation has carried off the pain entirely.

August 16. She has shifting pains, in different parts of her back, since the head-ach left her.

She continued, above a month longer, in the hospital, chiefly on account of the eruption: but the headach never returned in that time.

* The Occipital Artery is opened in the same way as the Temporal; and the same Apparatus answers for both.

C A S E X I.

An Ophthalmia cured.

Ann May, aged twenty-two years, is troubled with sore eyes, of six weeks standing. They are weak, inflamed, water a great deal, and cannot bear the light. The eyelids are also affected. She was formerly in this hospital for the same complaints, but in a much worse degree. She was then cured; and continued quite well till this last attack; which she imputes to sitting up late at nights, and to her employment of dressing victuals over the fire. She is otherwise well. She has only been bled as yet.

April 11, 1756. Let the temporal artery be opened; and let her have an ounce of Glauber's Salt to-morrow morning.

April

April 12. Two pounds of blood were drawn from the artery last night. She was sick, but did not faint. Her eyes were greatly relieved during the bleeding: and they continue much better to day, being quite free from inflammation.— She got the purge about an hour ago: and it has not yet begun to operate.

April 14. Her eyes are quite well; except that they are still a little weak, and a gummy sort of stuff gathers in them.

After having taken two or three doses of physick, she was dismissed free from complaints.

CASE

C A S E XII.

*A Headach and Ophthalmia cured, partly,
by Arteriotomy.*

AGNESS PRINGLE, aged twenty-six years, is affected with inflammation of her eyes, and violent headach of three weeks standing ; for which she can give no cause. Her eyes water a great deal : and, as they cannot bear the least light, it is difficult to know their true state. Her menses are partially obstructed. She is otherwise well. She has been in this house more than once, formerly, for the same complaints.

November 3, 1757. Let the temporal artery be opened.

November 4. She fainted, when eight ounces of blood were drawn, Her head
and

and eyes became easier, in a quarter of an hour, after the operation.

November 5. Let her be bled at the arm to six ounces : and let her take a scruple of the Mercurial Laxative Pills every other night.

November 7. Her eyes, though better, are still much inflamed.

Continue the pills : and let her bathe her eyes with warm spirit of Minderer, every night and morning.

November 13. She complains of pains through her body.

Intermit her medicines : and let her take two large spoonfuls of the Diaphoretick Julep, every three hours.

November 15. The pain of her head and eyes continue. The other pains are abated.

Let

Let her take a dram of the Polychrest Salt, dissolved in half a pint of water, every morning.

November 28. Her head and eyes are worse.

Continue the Polychrest Salt: and let her be bled at the ancle to eight ounces in the evening.

December 1. She is no better.

Continue the solution: and let a seton be put in her neck.

December 9. Her menses came on yesterday; and left her again.

Intermit the Polychrest Salt. Let her bathe her feet in warm water. Let her take a tea-spoonful of the Tincture of Saffron, and Elixir of Propriety, each equal parts, at night and in the morning.

December

December 10. She complains of headach,
and other pains.

Repeat the Diaphoretick Julep, every
three hours, as before.

December 15. The stitches are abated.
The pain of her head and eyes continues
bad.

Apply leeches to her temples.

December 19. Repeat the leeches in the
evening.

December 20. Her head and eyes are
better.

Let her use the Ointment of Tutty,
with a double quantity of Camphor, as an
application to her eyes.

December 24. Her eyes are worse.

Continue the ointment; and repeat the
leeches as before.

December

December 30. Her eyes are no better.
Continue the ointment; and repeat the
Polychrest Salt.

January 1, 1758. The left eye is very
bad.

Continue the same course; and apply
a leech to the left temple.

January 4. Omit the ointment. Con-
tinue the Salt. Let a poultice of bread
and milk, sprinkled with the spirit of
Minderer, be applied to the eyes, and
renewed every night and morning.

January 16. Her head and eyes are no
better.

Continue the same method; and repeat
the arteriotomy.

January 19. She was bled at the tem-
poral artery to twenty ounces; and was
relieved in the time of the bleeding; but
more,

more, in an hour after : and she continues better.

January 21. She complains of a faintish sickness.

Continue the poultice, and Polychrest Salt. Let her take two spoonfuls of the Cordial Julep, when faint.

January 31. She is troubled with sickness, and pains through her body. Her eyes continue better. Her pulse is full and quick.

Continue the same course.—Let her be bled at the arm to eight ounces immediately.—Let her have the Diaphoretick Draught at bed-time.

February 1. The pains continue.

Continue the same course.—Repeat the Diaphoretick Julep ; and let her take it, every three hours, as before.

February

February 6. Let her take a double quantity of the Polychrest Salt every day.

February 7. She vomits the solution.

Continue the same course: and let her take ten grains of Ipecuauanha, for a vomit, in the evening.

February 17. She is worse to day.

Continue the Salt: and let it be dissolved in a pint and half of water.

February 19. The Salt does not purge her.

Omit the Polychrest Salt. Let six ounces of blood be taken from her arm. Repeat the Mercurial Laxitive Pills as before.

February 23. Her menses appeared yesterday, and stopped again. She is feverish, and is troubled with pains.

Intermit

Intermit the pills.—Let fix ounces of blood be drawn from her ancle in the evening.—Repeat the Emmenagogue Drops at bed-time.

February 24. The courses have not returned. Her pulse is full.

Continue the drops : and let her be bled again at the ancle in the evening.

March 3. Continue the drops : and let her take fifteen grains of the powder of Ipecuauanha, for a vomit, in the evening.

March 5. She is dismissed, her head and eyes being well ; except that a small offuscation remains on the left lucid cornea.

CASE XIII.

A Fever from heat. The violent Headach removed by Arteriotomy.

CHARLES BURLEY, a lad, aged — years, three or four days ago, slept for a considerable time in the open air; during which the sun's rays beat intensely upon him. When he awaked, he had a sensation as though his head were in fire; and he has been in a fever ever since. He complains much of headach, sickness, oppression of his breathing, pain of his belly, pain and difficulty in making water, frequent fruitless efforts to stool, great heat, and thirst. His pulse is full and quick.

He has got two vomits for this disorder, but nothing else.

July 19, 1758. Let seven ounces of blood be drawn from the arm immediately.

ately : Afterward let him have half the quantity of the Domestic Clyster.

July 20. Let him have ten grains of Nitre every six hours.—Let him have a clyster of half a pint of warm water.—Let him have an ounce and a half of Manna, dissolved in water, to-morrow morning.

July 21. His head was worse in the night: and he raved at times. He had one stool with the clyster. He makes water more freely. A few minutes ago, his nose began to bleed; which has relieved his head much.

Let his nose be bathed with warm water immediately.—Continue the Nitre; and repeat the water-clyster.

July 22. His head was worse yesterday in the evening: and his pulse was low and quick.—Six ounces of blood were taken from the Temporal Artery, which relieved his

his head immediately, without altering the pulse. His head is pretty easy. His pulse is fuller and quicker.

Continue the Nitre: and repeat the Domestick Clyster.

July 25. He has slept a great deal these two days. He is very sensible when he awakes; and complains of nothing. His pulse is pretty calm, and not low. A good deal of bloody stuff has come from his nose last night, and to-day.

Continue the Nitre; and repeat the clyster.

July 26. He is much as yesterday. He awakes only to ask for drink, and falls asleep again. He complains a little of his head to-day. The pain and difficulty of making water are worse.

Continue the Nitre: and let him take five grains of Camphor at night, and in the morning.

July

July 27. The sleepiness continues. The headach is gone. The strangury is much less. His appetite returns. The thirst is less. He takes his powders but seldom.

Continue the Nitre and Camphor.

July 28. He does not sleep quite so much. The strangury is gone. He has no thirst. His pulse is almost calm. He complains of nothing. The running at the nose is stopt. He has had no stool these three days.

Omit the Nitre and Camphor.—Repeat the Domestic Clyster.

July 30. The sleepiness is almost gone. His pulse is calm.

He got a purge; and went out, in a few days after, quite well.

CASE XIV.

*A Headach and Ophthbalmy cured, chiefly,
by Arteriotomy.*

JOHN KER, aged forty-four years, complains of headach, and inflamed eyes, for these six months past. The cornea lucida of both eyes is much offuscated; so that he can only distinguish light from darkness with the right eye, and the brighter colours with the left. His eyes water a great deal: the pain of them is not constant; but shoots, at times, up through his head. He was formerly in this hospital for the same ailment; and was dismissed, cured, about three years and a half ago. He continued perfectly well till this relapse; for which he cannot, with any certainty, assign a cause.—He has a fetor in his neck; and has been using purges, and other means, without advantage.

November

November 29, 1758. Let blood be drawn from the left temporal artery.

December 2. A pound and a half of blood was taken from the artery, yesterday. He was relieved in the time of the bleeding: and, he says, he could open his eyes better than he had done since the beginning of his ailment.

Let his eyes be fomented, first, with warm milk and water, and, afterwards, with the Vitriolick Water, every night and morning.

December 5. Let half a dram of the Mercurial Laxative Pills be taken every other night.—Continue the applications.

December 20. He complains of head-ach. The pills do not purge.

Continue the same course,—Let him bathe his feet, in warm water, at night.

Let him have an ounce of the Bitter Cathartick Salt to-morrow morning.

January 13, 1759. A pound and a half of blood was drawn from the Temporal Artery, last night; which relieved his eye much in the time. It is a little more inflamed to day.

Continue the same method.

January 30. Omit the pills, and the vitriolick water.—Let sneezing be promoted, by a grain of Turpeth Mineral, mixed with six grains of sugar.

January 31. Let the powder be repeated every other night.

February 9. Let him have the Decoc-tion of Tamarinds, with a triple quantity of Sena, to-morrow morning.

He took three more purges, at the distance of five days between each. When
the

the last was ordered, a poultice of bread and milk was also directed for the eye chiefly affected.

March 9. He was bled at the artery, to two pounds and above, this day, with considerable relief, and without sickness.

March 15. Let the eyes be anointed, every night, with a little of the Ointment of Tutty with Camphor.

March 29. Continue the ointment: and let him have the Bolus of Rhubarb with Mercury, in the morning.

March 31. Continue the ointment: and let him take the Bitter Infusion, with a triple quantity of Sena, to-morrow morning.

April

April 4. Continue the ointment: and repeat the Mercurial Laxative Pills, every other night, as before.

April 28. Omit the pills.—Let him take a dram of the Polychrest Salt, dissolved in a pint of water, every morning.

May 21. His eyes are well. He goes out to-morrow.

C A S E XV.

Inflamed eyelids: and pain and weakness of eyes.

HELEN M'LEAN, aged twelve years, has been subject to pain, heat, weakness, and watering of her eyes, for these sixteen months, without any cause known to her. The eyelids are affected internally. The eyeballs,

eyeballs, to appearance, are free from inflammation.

March 28, 1759. Let the Temporal Artery be opened.—Let her take an ounce of Glauber's purging Salt, to-morrow morning.

March 30. Nine ounces of blood were drawn from the Temporal Artery, when she fainted. Her eyes are much better since.

She continued, in the hospital, above three weeks longer; during the greater part of which time, she took the Polychrest Salt every other day, by way of laxative. She had an accidental feverishness for some part of the time. She lost no more blood —She is said to be dismissed, relieved: but I believe, and the nature of the case makes it probable, that she was cured.

CASE

C A S E XVI.

*An Inflammatory Headach cured, chiefly, by
Arteriotomy.*

In the year sixty-four, I was consulted for the Earl of Portmore's servant. This man laboured under a violent headach. His eyes were tender, and could not bear the light. The smallest noise aggravated the pain. His skin was warmer, and his pulse was quicker, than natural.—The opening of the Temporal Artery proved the principal means of his cure.—Mr. Harrison, of Derby, was the surgeon.

C A S E XVII.

A Rhumatick Headach cured.

Miss MARY ALLEYNE, of Loughborough, was distressed with an excruciating
head-

headach, from which she was hardly ever free. Her rest was broken; and her flesh and strength were much impaired. She was, for some time, under my care for this complaint. She was bled at the arm, and at the neck, with the lancet; and, at the temples, by leeches. She used vomits, purges, blisters, and a great variety of other means, without relief. At last the Temporal Artery was opened: and the pain left that side of her head, by the time that the operation was over. The pain continuing to affect the other side, as before, she was bled, in a few days, on that side also, and with the same good effect: for she was then quite free from the headach; and never afterwards had any return of it.—My worthy friend, Mr. Thomas Hunt, was the surgeon.

In the year seventy-seven, my advice was requested for the following patient, servant to the Reverend Mr. Dixie of Derby.

CASE XVIII.

A Hemicrany, and Hydrophthalmia, removed.

WILLIAM HAWLEY, aged twenty years, about six weeks ago, having, as he thinks, caught cold, was seized with a violent pain of the right side of his head, and right eye. In a fortnight, this disorder was attended with dimness of, and mist before, the eye. The symptoms, of dimness, and mist, gradually increased, till the eye became totally dark; which, he says, happened just a fortnight ago. The pupil of this eye is much larger than the other;

other; and has not the least motion, from the successions of light to darkness. The ball of the eye is much enlarged; but still retains its usual form. Neither his head, nor his eye, are quite so painful as they have been. The pain is worst about four in the afternoon; begins to abate between six and seven; and grows worse again about nine in the evening. The headach is like as though the part affected were pulled one way, and then drawn suddenly back the other way. The pain in the eye gives him the sensation as though it were about to start out of the socket. He is very cold, upon first going into bed, at night: but, after some time, he becomes warm, though not more so than natural. He sleeps none after three in the morning, on account of the pain. The vessels of the white of the eye are larger than natural. His pulse beats ninety strokes in the minute. He has a great appetite; which is natural to him. He is much addicted to the drinking

drinking of ale. He has two or three stools a day naturally.

He has been bled at the arm; and, at the right temple, with leeches. He has also used blisters, and purges.

April 23. The temporal Artery was opened this forenoon; and it bled freely. After a pound and a half of blood was taken, he became sick, and vomited, but did not faint. He was easier before the first cup was full: and, before the bleeding was over, the pain was quite gone. The two first cups are much sized.

April 24. At noon. He has no pain in his head, but what arises from the bandage; which is rather too tight, but is to be slackened. His pulse beats seventy strokes in the minute. The first cup of blood has a fizy concave surface. The surface of the second cup is horrizontal, and not so fizy.

fizy. All the rest of the blood is of a florid natural appearance.

April 25. He slept very well last night. He is quite easy; and has had no return of pain. The ball of the eye is reduced almost to the natural size: but still the pupil is large, and immoveable: and there is no return of sight. The disproportion between the eyes would scarce be perceived; only the upper eyelid of the diseased eye moves more straitly over it. He is otherwise well.

May 4. Both eyes appear the same as to size. He was out of doors lately, lying on the wet ground; and has lived, in other respects, irregularly. On the second current, he began to lose his appetite; which before was voracious: and, in the evening, he complained of pain in the left side of his head, sickness, and vomiting of whatever he took. Those complaints have been bad ever since: and what he throws
up

up is green, and very bitter. His pulse beats seventy strokes in the minute. He is very faint. He has had no stool these three days.—It is sufficient to add, that he died, in a few days, with symptoms of great oppression upon the brain, nothing having afforded him the smallest relief.—My good friend, Mr. Francis Meynell, was the surgeon.

SECT.

S E C T. II.

CASES WHEREIN THE EXTRACT OF
HEMLOCK WAS SUCCESSFULLY EM-
PLOYED.

C A S E XIX.

A Quotidian Hemigrany cured.

MARY TORTISHELL, aged seventeen years, has been troubled with violent pain of the left side of her face, for a year past. The one half of her forehead, the temple, the cheek, and down her neck to about a couple of inches below the mastoid process, on the course of the sterno-mastoid muscle, are the parts affected. The pain advances very little upon the hairy part of her head. It is an aching pain; and affects all the parts.

parts just mentioned; but, chiefly, a little above the eyebrow, and the spot below the mastoid process. It is an inward pain, being not sore to the touch. The part affected is, at present, swelled, but not discoloured. She is generally pretty free, and sometimes altogether free, from pain in the day time: but, the moment she lays her head to the pillow, at night, it begins with great violence; and gives her the sensation as though the part were on fire: and it is swelled, and flushed. For this reason, she sits up the greatest part of the night, and gets no sleep; except a little, towards morning, which is much disturbed. If she were to ly down in the day, the pain, she says, would come on. She can only upon the side affected. She cannot, now, see small objects with the left eye, so well as with the right; which she imputes to the pain. She has no uneasiness from moving her head. She is often troubled

troubled with wind : and the breaking of wind relieves a pain, in her left side, to which she is often subject. She is very thirsty. Her appetite is pretty good. Her courses are regular. Her belly is natural.

She had an ague about a year ago ; since which her legs have swelled, till within this month : and, since the swelling disappeared, the pain has been much worse.

Changes of weather do not affect her. She has been, formerly, troubled with the toothach : and there is a rotten tooth, in the lower jaw, on each side of her head. She has used vomits, purges, blisters, and other means, without advantage. The only thing that gives relief, is brandy put into the left ear.

October 17, 1771. Divide half an ounce of the Extract of Hemlock into forty-eight equal Pills : and let her take two of them every night and morning.

October 19. The Pills agree well with her, and warm her; for, she says, she was often cold before. She has had more rest for these last two nights; the pain not having begun, till after she had been several hours in bed.

Let her take three Pills twice a day.

October 21. On the nineteenth, she went to bed at nine, and slept from ten till six in the morning; when she rose quite free from pain. She once attempted to sleep on the right side: but she was obliged to desist; as she found, that the pain would have come on. Last night she went to bed at nine; and began to fall asleep about eleven; but had no sound sleep, on account of violent pain, with a sense of heat over her left eye, and no where else. The same pain has continued all day.

Let her take four pills twice a day.

October

October 25. She has slept all night, for these three or four nights; and has no pain, now, but in her forehead; which is often violent through the day, and is accompanied with a sense of heat, but no swelling. She still cannot lie on the right side.

Let her take five pills twice a day, beginning this morning.

October 29. Her courses came on last night. She seemed to mend fast; and was a day and a night quite well: but, since last report, she says, that she is to the full as bad as ever, the pain having returned to the old spot, and having continued also in her forehead.

Divide half an ounce of the Extract into forty equal pills: and let her take six of them twice a day.

October 31. She rested exceeding well, last night. She has pain, and weight,

in her forehead to day; but none in the side of her head. Her menses continue.

Let her take seven pills every night and morning.

November 2. She has had good nights since last report. The pain is not constant now: it attacks her only two or three times a day; and lasts for half an hour at a time. The pain, when it comes, is now only in the side of her face, and is attended with giddiness. Her courses continue.

Continue the pills.

November 3. She has had a good night. She had only one fit of pain to day: and it lasted a quarter of an hour. Her menses continue.

Divide half an ounce of the Extract into forty-eight pills: and let her take eight of them every night and morning.

November

November 5. The menses left her on the third, at night. She has only had one fit of pain since last report; and that was, yesterday, for about ten minutes. She only complains of being a little thirsty. Her tongue is clean. Her pulse is calm.

Continue the same method.

November 9. She took the last of her pills, about seven this evening. She continues free from complaints: but she can not yet lie on the right side; as, by that posture, a shooting pain is occasioned in the left side of her face.

Let her take eight pills every night at bed time.

November 13. She continues well; and can lie longer, on her right side, without inconvenience.

Let her take seven pills to night; and six to-morrow night.

November

November 15. She has continued well till to day about eleven; since which time she has had the usual pain, and burning heat, over her left eye, attended sometimes with giddiness.

Let her take eight pills every night and morning.

November 17. She has good nights. The pain and heat of her left eye still come in fits.

Let her take six pills thrice a day.

November 19. She has good nights: and the pain, over her left eye, is something better.

Let her take six six-grain pills at night, and as many in the morning.

November 20. At noon. She awaked four times in the night, with severe pain, as formerly, in the side of her face; which
lasted

lasted about half an hour each time. She is pretty well to day.

Let her take seven of the same pills immediately, and the same number at bed-time; and let her take seven, thrice a day, afterwards.

November 22. She had a bad day yesterday. Last night was a good one: and she is very well to day.

Continue the same method.

November 26. She is much better: but still has some pain over her eye, and, sometimes, vertigo.

Continue the same course.

November 30. She continues much better.

Continue the pills.

December

December 4. She continues to mend.

Let her continue the pills in the same manner.

December 7. She has no complaint.

She has a few of her pills remaining: let her continue them while they last.

December 29. She says, that she is sometimes free from pain, and, at other times, has a good deal.

Divide half an ounce of the Hemlock-mass into forty-eight pills: and let her take five of them twice a day.

March 1, 1772. She has been free from complaints, ever since she finished her last pills, till within these four or five days, that she has been affected with pain of the side of her head. The pain affects the prominence of the left cheek, immediately before the ear, and the ear itself internally. It is an aching, shooting, pain; and attacks

tacks her either night or day, but chiefly in the night, after her first sleep; which, commonly, does not last above an hour. She is then obliged to sit up the rest of the night, on account of the pain, as also a tendernefs of the fide of her face, which cannot bear any thing to touch it. Sometimes the pain affects the right fide of her face, in the very fame parts; but never both fides together. The pain begins with burning heat, which does not last long; and is fucceeded by a coldnefs all over her. She has never any pain over her eye: but it is ftill too weak to examine fmall objects. She is otherwife well.

Let her take three five-grain pills of the Extract of Hemlock thrice a day.

March 2. She is no better. The pain is commonly worft at night. The gums of the affected fide, both above and below, fwell, and ache, during the pain. Ex-
cept

cept at first, she is cold and chilly during the whole of the fits of pain.

Let her take four pills thrice a day.

March 4. She is no better: and the pain affects her now over the eye.

Let her take five pills three times a day.

March 8. She is much better these two days. She has the pain in the side of her face, and ear, only for half an hour, between twelve and one in the night; and that over her eye, for as long, between eight and nine in the morning.

Continue the same course.

March 12. She has had no pain since last report; except for half an hour, each of the two last nights, between twelve and one o'clock.

Continue the same method.

March

March 16. She had no complaint till the fourteenth, between nine and ten in the morning: from which time, till between two and three this morning, she had a great deal of pain. Her menses then appeared, and continue: and she has little or no pain since. She was sick last night. Her belly is natural.

Continue the same course.

March 21. She has had no headach, since last report. Her menses continue. She is troubled with pain of her stomach; which, she says, is generally the case during menstruation.

Let her take four pills twice a day.

March 25. The Menses left her on the twenty-second, at night. The pain of her stomach is gone. She had some headach from yesterday morning, till this morning.

Con-

Continue the same method.

March 29. She has had no headach since last report. She was sickish, for half an hour, yesterday morning.

Continue the pills.

April 2. She has no complaint.

Continue the same method.

April 12. She has no complaint. Her courses came on this morning.

Continue the pills.

April 19. She is in good health. Her courses are gone: and she had no disorder during their continuance.

Let her pills be omitted.

This young woman never had any more returns of her disorder. She is now married, and lives in Derby.

She used, in all, fourteen ounces of the Extract of Hemlock.

CASE

C A S E XX.

Dimness of Sight, from an Albugo, cured.

WILLIAM SMITH, of Derby, aged 26 years, of a tall, thin habit, and by trade a jeweller, about Christmas last, was seized with inflammation of his right eye, which lasted five weeks; and left a thickness of the cornea lucida, or, what is called, the Black of the eye, which still continues. The whole cornea lucida is thickened, and offuscated; but the inner, and lower, part of it is particularly affected, being quite opake, and of a colour resembling milk a little diluted; and has a large blood vessel running over it. He can only see the brightest colours with this eye. The pupil retains its motion. His appetite is good. He has a bad taste in his mouth in a morning. He generally feels a load at his stomach after meals.

His

His belly is natural. The inflammation came on, from cold, during the use of physick. He used no means for it, besides emollient poultices, and one purge.

June 13, 1773. Divide half an ounce of the Extract of Hemlock into sixty pills; whereof one is to be taken, every night and morning, for two days; and then two are to be taken twice a day.

June 28. He thinks that the eye is stronger, and that the vision of it is more distinct.

Divide half an ounce of the Extract into forty-eight pills; and let two of them be taken twice a day for two days; and afterwards three, twice every day.

July 15. Divide an ounce of the Extract into ninety-six equal pills: and let him take them, twice a day, as before.

August

August 2. The white spot is thicker, and seems to project from the surface of the cornea. The blood-vessel is not so turgid. The sight of the right eye continues much the same.

Let him have seventy-two more pills, to be taken in the same manner.

August 21. He sees much better. The lucid cornea is now quite transparent; except the whitish spot, which continues much the same as at last report. He is improved in flesh, strength, and colour: and his digestion is also mended.

He has used in all two ounces and three quarters of the Extract; which is a less quantity than he should have used, in the time, according to the directions. He continued this medicine, at times, a considerable while longer, with manifest advantage to his general health, but without producing any further change on the remaining albugo.

CASE

CASE XXI.

A Quartan Hemicrany cured.

MR. CHRISTOPHER SMITH, of Morely in Derbyshire, of a tall thin habit, and temperate, aged thirty-eight years, has been subject, for many years, to headachs, chiefly affecting his forehead, after drinking a little more than usual, or after hard exercise, as much walking, or after catching cold. Those headachs were attended with faintness, fluttering of his heart, feebleness, and trembling, of his limbs. He was most subject to them in warm weather. He always felt himself best in cold weather.

About nine weeks ago, he was seized with a stuffing of his nose, and a sort of confusion of his head, as if he had caught cold. On the second day of this ailment, having drank some ale, while on a journey,

journey, he was affected with very severe pain of his head. This, however, went off in a few hours: and he had a pretty good night. On the third day of the stuffing, at night, his left ear ached most violently, with the sensation of a crackling noise. This disorder, in a day or two, was attended with pain in the vertex, or crown, of his head, also in the upper part of the left temple, amongst the hair, and in the left side of the occiput, or hind head, about the same height with the mastoid process, and extending to within about an inch of it. During the first week of those pains, he was so afflicted with their violence, that he could not bear the least light, or noise, or even to speak. The second week, the pains became violent every afternoon, at four; continued so till six, or seven, in the morning; and then were easier, but not gone, till the usual hour. On the third week, he began to have two tolerable days,

K

and

and one bad one; which has generally been the case with him ever since. The pains always begin with chilness, yawning, and stretching; which last for half an hour: he is then warmer than usual for an hour; but seldom or never sweats. The pains are, sometimes, worst in the day; and, sometimes, in the night. They are always eased by a recumbent posture. He can never lie on the well side. His ear still continues affected with the pain, and noise: and it is, also, become dull of hearing. The vertical pain generally begins, is the worst, and affects the other places. The temporal pain begins sometimes, but very rarely. The pains are sometimes throbbing, and sometimes shooting. They affect the left eye: and it waters, and never bears the light well. He commonly falls asleep as soon as the pains abate.—Swallowing has never affected the pain of the ear. Sneezing scarce at all affects the pain of his head, even when at the worst.

The

The left stern-mastoid muscle is stiff. It has been so, three times before, in the course of this illness: and the stiffness always lasted for two days. This is the second day of the fourth attack: and the stiffness is, now, much abated. This muscle is never sore, nor painful, even to the touch; but it feels stiff: and, while this stiffness continues, he cannot turn his head, to the left, without the assistance of his hand.

For the last fortnight, he has been affected, for a little at the beginning of the fit, with violent palpitations; and, during the whole of it, with a short dry cough. He is not entirely free, from this last symptom, in the intervals.

He has never been feverish. He has no thirst. His appetite is pretty good. His skin is temperate. His pulse is rather low, and beats seventy strokes in the minute. His urine deposes a sediment like brick-dust. He has, generally, a stool,

of a natural appearance, every day. His flesh and strength are not impaired.

His left eye was very itchy, for three weeks, before this disorder came on: and it became all over bloodshot, owing, in part, though not entirely, he thinks, to frequently rubbing it.

When he was about fourteen years of age, he was seized with a quartan ague; which continued, with little interruption, for two years. Within these fourteen years, he has had some attacks of a quotidian, in the spring season. He has, also, had two pleuritick fevers within these two years.

January 29, 1774, at noon. He has had a bad night. He was better in the morning; but he is worse again now, being affected with violent shooting pains, which oblige him, now and then, to hold his head between his hands.

Two large spoonfuls of the following mixture are to be taken every three hours, first shaking the glass. It contains eight ounces of spring water, half an ounce of proof spirit, and two drams of sugar, with a scruple of the Extract of Hemlock.

January 30. He has had a better night; but is not quite so well to day, as he was yesterday. He has belched more wind than usual. He observed a moisture on his limbs this morning, for the first time: and he has made more water. It is turbid, and seems as if it would let fall a sediment.

Repeat the mixture, with half a dram of the Extract of Hemlock.

January 31. He was pretty well yesterday afternoon. He has had a good night; and continues easy and well to day, having only had, as yet, a few trifling shoots in his head. He is in good spirits; and has
a good

a good appetite. He has had one natural stool to day.

Repeat the mixture, with two scruples of the Extract.

February 1. He has only had a few inconsiderable shoots of pain since last report. He slept well in the night; and is in good spirits to day.

Repeat the mixture, with forty-five grains of the Extract of Hemlock.

February 2. The crown of the head, where he used to feel the chief pain, itched very much yesterday. He had pain in his head, for two hours, last night: but it was so tolerable, as scarce to keep him from sleeping. His left eye is stronger; though it became a little bloodshot yesterday, and continues so. There is still a noise in the left ear; but the pain of it went with the other pains. He can now lie fully as well on the right side, as on the
left

left. He is less troubled with flatulency. His appetite is better. His urine is now of a straw colour, and without cloud, or sediment. It has been more copious than usual, ever since he began the hemlock. He has had a stool every day, except yesterday.

Repeat the mixture, with fifty grains of the Extract.

February 3, at noon. He had some little pain in the crown of his head, in the afternoon, yesterday; which lasted till bedtime. He slept very well in the night: but he is affected with the same pain since morning, and also with the stiffness behind his ear. He was uncommonly cheerful, and laughed a great deal yesterday.

Repeat the mixture, with a dram of the Extract of hemlock.

February 4. He has had a good night. The pain is much less to day.

Con-

Continue the same method.

February 6. He was free from pain, the greatest part of the day, on the fourth. He had a little pain, for an hour, that night. He has been very easy ever since. He sleeps well in the night; and is in good spirits through the day.

Repeat the mixture, daily, with three scruples and a half of the Extract.

February 8. On the night of the sixth, he had some little pain in the crown of his head, and stiffness, as usual, behind the ear and down the neck: these complaints have continued till now, that they are going off; and have never prevented his sleeping. He breaks a great deal of wind; makes much straw-coloured urine, without sediment; and has a natural stool every day.

Repeat the mixture, with seventy-five grains of the Extract, daily.

February

February 11. He continues to mend. Last night, he had more pain, than usual, when in bed, and was too warm: but those complaints soon went off. The stiffness behind his ear continues. His urine continues copious. He has a stool every day.

Repeat the mixture, with the addition of a dram of Magnesia.

February 13, after noon. On the eleventh, in the night, he was hot, and had much pain in the crown of his head: and his neck became full as stiff as ever. He was not hot last night: and he slept well. He is now much better, both as to the pain, and stiffness. The urine made on the morning of the eleventh, depoted a copious sediment; that made yesterday morning, had but little sediment, and of a white colour. This morning's urine continues quite clear, and without sediment,

Repeat

Repeat the mixture, with two drams of the Polychrest Salt, instead of the Magnesia.

February 15. He is much better since last report. Both his head and neck are, in a manner, quite free. The noise in his ear is much abated. He has never been hot; and has had very good nights. His urine is natural. His stools are regular. —He says, that he has never been so well, as he is now, since his illness began.

Let him take three large spoonfuls of the mixture every six hours

February 18. On the fifteenth, he had some pain of his head, and stiffness of his neck. The pain has affected him, at times, ever since; but now abates. On the sixteenth, his urine was thick, and threw down a whitish sediment. On the seventeenth, it was diaphanous, and without sediment.

Divide

Divide half an ounce of the Extract of Hemlock, into forty-eight equal pills: and let him take three of them thrice a day, for two days; and then four, thrice a day, for a continuance.

February 25. On the eighteenth, in the night, he was much troubled with pain of his head; which went off in the morning. He had a good night, on the nineteenth. On the twentieth, in the night, he had a great deal of pain; which left him next morning. He has had very little of his disorder since; and that only at times. Both on the twenty-third, and yesterday in the morning, his water was rather high coloured, and let fall a copious sediment. His urine is not so copious.

Continue the pills.

March 3. He continued pretty well till the evening of the twenty-eighth; all
which

which time his water was clear and without sediment: but that night he was seized with pains through all his bones, chillness, heat, thirst, and a violent return of the pain of his head, and stiffness of his neck, from cold; as he had been abroad, contrary to advice, for two or three days; and the weather was very cold. Next morning the pain went off, but returned again at night: it has continued ever since; but is hardly so bad as it was at first. He was rather hot last night. His breath is offensive. His appetite is bad.

Let him take fifteen grains of Ipecacuanha, in powder, at six in the evening, for a vomit; and let him drink chamomile tea, to promote its operation.—Let him take an ounce and a half of the Sacred Tincture, at bed-time—Let him begin his pills again to-morrow morning.

Merck

March 8. The vomit operated gently, and brought up phlegm: and he has mended every day since. The pain of his head and the stiffness of his neck were so violent from the time that he caught the cold till he took the vomit, that he was confined to his bed, and moaned greatly. His urine was very high coloured during the feverish complaint, and deposed a whitish, heavy sediment, inclining to pink: it is now turbid, and whitish. His pulse beats ninety strokes in the minute: but, he says, that it was much quicker within these few days. He eats improper food, such as bacon: and he is fondest of it; though, he says, that it lies very heavy at his stomach.

Diffolve an ounce and a half of Polychrest Salt, and as much sugar, in a quart of spring water; and let him take four large spoonfuls of the solution every six hours, beginning immediately.

March

March 11. His head was worse on the ninth, at night, than it had been the night before. Last night was a very good one: and he is much better to day. He has had two stools a day, since he began the solution. His urine is diaphanous, of a better colour, and more copious. His skin is temperate. His pulse is calm.

Let him return to his pills, and take three, thrice a day, for two days; and afterwards four, thrice a day, for a continuance.

March 25. His complaints are gone. Omit his pills.

His constitution was much improved by this course. He never had any return of his disorder. About five years ago, he continued to enjoy a good state of health, and went to live in a fenny country. After he had been there two years, he caught an ague; and was scarce recovered from it,

it, when he was seized with a pleurisy, which proved fatal.

C A S E XXII.

A Scrofulous weakness of eyes cured.

SARAH ALLEN, of Derby, aged thirteen years, has been long subject to weak eyes, which nothing ever relieved but issues. They are seldom red now: but they are, generally, dim in the morning. The edges of the eyelids are still redder than they should be.--She has three hard, glandular, indolent, swellings under the left angle of the lower jaw; and one, in the middle, below the jaw, as far back as the larynx, to which it adheres, though loosely. The middlemost tumour, of the first three, is equal, in size, to the largest nutmeg. All the other tumours are each about half that size. The three swellings,
first

first mentioned, make a considerable prominence, so as to disfigure her. All those swellings began, about three years ago, without any known cause; and have gradually come to their present bulk. She is otherwise well. She is of a small habit; and was born of a tender mother. Her father has had such swellings.

August 16, 1775. Divide two drams of the Extract of hemlock into twenty-four equal pills: and let her take one of them every night and morning, for three days; and then let her take two pills twice a day, for a continuance.

August 28. She has taken the pills so, that they were only finished yesterday morning. All the swellings are less.

Let her continue to take two pills every night and morning.

September

September 4. The lumps are much diminished.

Continue the same method.

September 10. The swellings are still less.

Continue the pills.

September 16. The swellings continue to dissolve. The edges of the eyelids are of quite the natural colour.

Continue the pills.

September 27. The swellings dissolve slowly.

She is desired to take three pills twice a day.

She only continued to take her medicine about eight days longer ; as her eyes were quite well, and the swellings were much less than they had been.—She took, in all, fourteen drams of the Extract of Hemlock.

C A S E XXIII.

A Scrofulous Ophthalmia.

Mrs. G. a widow, aged fifty-nine years, has been long subject to inflammatory affections of both her eyes: and, for these last four months, they have never been well. She complains much of heat, pain, and great weakness of her eyes, with inability to bear the light. The eyelids, as well as the eyeballs, are inflamed. The eyes discharge much water, and thick matter. They are generally worst towards two or three in the morning: the pain is then sometimes in one eye, and sometimes in the other; but oftenest in the right eye; and shoots through to the back part of her head, and is so bad as not only to deprive her of sleep, but to make her very restless.—She is, also, troubled with a particular disorder, which, she

she thinks, alternates with the other: for, when her eyes are better, this is worse; and, on the contrary, when this is better, the eyes are worse. The disorder begins in this manner. She awakes about one, two, or three in the morning, with a beating across her breasts, as though there were a thousand hearts within her, and a rumbling of wind, attended with violent aching pain and great heat from about her navel, to the middle of her throat, giving the sensation as if something stopped there; which makes her constantly swallow her spittle, as it were to clear the passage in her throat. The spittle, at this time, is very copious. The breaking of wind, in any way, gives her little or no relief. Her pulse is always calm. Her appetite is good. A stool relieves her: but, if she has many, she is the worse for them.

October 26, 1773. Let her take ten grains of the Extract of Hemlock, and as much Rhubarb, in the form of pills, at bed-time.

October 27. She slept from half an hour after ten, till four in the morning; and has had but a very small degree of her symptoms since. She has had two very slimy dark stools.

Repeat the pills at bed-time.

October 28. She slept none all night. She had her usual complaints in a small degree; though more than the morning before. She has had three or four small, dark, slimy, stools.

Let her take twelve grains of the Extract of Hemlock, eight of Rhubarb, and a drop of the oil of Cinamon, in the form of pills, at bed-time.

October

October 29. She had a good night, having slept above six hours; and has but little of her complaint. She has had two stools.

Continue the pills.

November 2. Let her take fourteen grains of the Extract of Hemlock, six of Rhubarb, and a drop of the Oil of Cinnamon, mixed and formed into pills, at bed-time.—Let her take a tea-spoonful of equal parts of the Tincture of Myrrh, and the Stomachick Tincture, twice a day, to wit, in the morning, and at three in the afternoon, in a glass of water.

November 8. Her inward complaints are much better. The flutterings and heat are trifling. She has good nights. She has one stool a day.—

Continue the same method.

November

November 10. She slept none in the night. The wind rolled about a little, but with scarce any heat or pain. She has had three stools.

Continue the same course.

November 28. The inflammation, and pain of her eyes, are quite gone. The headach is also gone. Her inward complaints are, likewise, much milder than they have been: but still they sometimes occasion sleepless nights; and begin then about three in the morning. They are preceded by frequent eructations of wind, and a constant impulse to swallowing.— She allows that she has hurt her appetite, and digestion, by eating over eagerly, and of improper things, by exceeding in quantity, and by swallowing her food, before it was sufficiently chewed, her teeth being bad. All this, she allows, she has sometimes done, though not often;

ten; and that her nights have been the worse for eating so improperly.

Continue the pills, and tincture.—

Spread some of the Plaster of Hemlock, with Gum Ammoniac, on a large piece of leather, of a proper shape, and apply it to the region of the stomach.

The plaster was once repeated. The pills were continued till the middle of April, with great benefit to her general health.

C A S E XXIV.

An Ophthalmy and Albugo.

December 2, 1775. The same patient has been using hemlock, since the 26th day of August, for the disorder in her eyes, which returned about six months ago. When she began this medicine, both the eyeballs, and eyelids, were much affected with inflammation.

inflammation; she had excessive pain, at times, in her eyes; they ran much water, and thick matter; and could not bear the light: there were also many offuscations on the cornea lucida. She has taken three pills, twice a day, almost ever since she began, and has scarce ever omitted them for a day: and she continues to take them regularly. For more than two months her eyes have been quite free from inflammation, weakness, or discharge of any kind: and the offuscations, all this time, have been gradually wearing off. Her eyelids are paler, and freer from redness, than they ever used to be, when she was in her best health. Her head is much better; though she has frequently pain in the back part of it still. Her health, in general, is also much better than usual, since she began the pills. She still complains of her nights. She is naturally a bad sleeper. Her appetite is good. Her pulse is calm. Her belly is natural. She

She has a seton in her neck, which runs pretty well. It was put in a considerable time before she began the hemlock, and did not seem to produce any effect.

She has frequently used leeches to her temples, within these last six months; but they only gave a little relief for a day or two, till she began the hemlock.

CASE XXV.

An Opthalmia and Albugo.

The same patient left off her pills about the beginning of May, and she continued well till six weeks ago, that her eyes began to inflame: and they have continued bad, and have indeed been getting worse ever since. They are now as bad as they ever have been. The eyelids, and eyeballs, are inflamed, and fresh offuscations have come upon her eyes, particularly

ly a very large speck on the left cornea, which hurts the eyelids much in the motions of the eye. Her eyes water much; and also discharge a great deal of thick matter, especially in the morning. She has much heat and pain in her eyes: and they cannot bear the light. She says, that she sees very little. Frequent heats come into her temples, and cheeks, near to the eyes. She is often chilly, and sometimes hot. Her pulse is quick and low. Her health, at present, is tolerable; except that she is troubled, as formerly, in the night, with frequent propensities to swallow, and with the fluttering in her bowels.

She has used leeches very often; but does not think that they have done her any good. She was also bled at the ankle, without benefit. For some time she has been taking fifteen grains of the Extract of Hemlock, twice a day; and has been anointing the edges of the eyelids, every night, with a little of a salve, composed of
equal

equal parts of the Ointments of Lead and Tutty, and loaf sugar.

November 8, 1776. Continue the eye-salve. Let her take four five-grain pills of the Extract of Hemlock, every night and morning; and, with each dose of the pills, two large spoonfuls of the following mixture. It contains seven ounces and a half of the Simple Alexeterial Water, half an ounce of the Syrup of Orange-peel, an ounce of proof spirit, and a dram and a half of the Polychrest Salt.—Also, let her take thirty drops of the Acid Elixir of Vitriol, in a glass of water, every forenoon and afternoon.

November 13. Her belly was loose with gripes yesterday. The fluttering was very troublesome last night. Her eyes are less inflamed; but still water much.

Omit the elixir. Continue the mixture twice a day. Continue the ointment.

—Let

—Let her take three pills thrice a day, to wit, in the morning, at noon, and at night.

November 15. Her eyes are less inflamed: and the pain of them is much abated. Her cheeks are not so flushed. She is much distressed with the fluttering in her bowels, especially in the night. Her pulse is calm. Her belly is rather loose. She takes only four pills thrice a day.

Continue the same course.

November 17. Her eyes continue better. Her nights are sleepless: and she complains of the fluttering, and such excessive lowness, that, she thinks, she cannot live. Her pulse is calm and low.

Omit the Saline Mixture.—Continue the ointment.—Let her take two pills, thrice a day; and with each dose, two large spoonfuls of the following mixture; which contains half a pint of the Simple
Mint

Mint Water, an ounce of the Tincture, and three drams of the Extract, of the Peruvian Bark.

November 18, at noon. She is better in every respect: but she slept none last night. She took her medicines twice yesterday, and twice to day, as ordered. She takes boiled wheat and milk to her supper, because it keeps her open. She is desired to abstain from it.

Continue the same method.

November 21. She has better nights; and has less of the fluttering. Her eyes continue much freer from inflammation: and they discharge less. As she complained, yesterday, of pain in her left eye, two leeches were applied to the left temple: and as the pain, though less, continues, a small blister is to be applied behind the left ear at night. — She takes the mixture only twice a day, at night, and in the morning.
She

She takes two pills every night and morning, and three at noon.

Continue the same course. Repeat the mixture, with the addition of a dram of the Extract of Hemlock.

November 25. The inflammation is greatly abated; and the speck is much less: but she sees no better as yet. She sleeps better, though still badly: and the flutterings, and swallowings, continue troublesome. She has a stool every day. —She takes eight pills, and four spoonfuls of the mixture, in the day. The issue runs well. The blister has never been removed since it was applied, and now begins to dry up.

Continue the same method. Take of Sagapenum a dram, powder of wild Valerian Root half a dram, and make them into a mass, with syrup, to be divided into twenty pills. Four of these Laxative Pills are to be taken every night at bedtime.

November

November 29. Her eyes continue to mend. Her other complaints continue the same. She has not taken any of the Laxative Pills.

Continue the same course.

December 3. The inflammation of the eyeballs is quite gone. The edges of the eyelids continue red. The discharge from the eyes is greatly less. She has taken one dose of the Laxative Pills: and they purged her. The swallowings, and flutterings, are very bad in the night; and begin as soon as she lies down.

Let her take two of the hemlock pills, thrice every day; and two spoonfuls of the mixture, with each dose.—Let her take two of the Laxative Pills at night; and drink Valerian-tea occasionally.

December 7. The speck is now very trifling. The inflammation, both of the eyeballs, and eyelids, is quite gone. The
nervous

nervous complaints continue troublesome: but she looks well; and her pulse is calm, firm, and regular.

She had afterwards returns of all her complaints: and they always yielded to the means employed. The hemlock continued to answer better than any thing else for her eyes; and, indeed, always proved a cure.

As I imputed the general bad state of her health, to the low and damp situation of her house, she changed it for a more dry, and airy habitation, and with manifest good effect; for she then enjoyed a much better state of health, and her eyes continued well, as long as I knew her. I am, however, informed, that her eyes are not well now; and that she is using empirical applications, with little or no advantage.

S E C T. III.

CASES REFERRED TO IN THIS WORK,
WHICH ARE NOT REDUCIBLE TO
EITHER OF THE FOREGOING SEC-
TIONS.

CASE XXVI.

*A Quotidian Hemicrany cured, chiefly, by
Laxatives and Opium.*

THOMAS SUTTON, of Derby, aged
thirty years, by trade a joiner, was seized,
yesterday about eight in the morning,
with violent pain in his forehead, a little
higher than the right frontal sinus, atten-
ded with chilliness all over him, and sick-
ness. These complaints lasted for several
hours: and the right eye watered very
much, and he could not open it. He re-
mained, afterwards free from the pain,
till this morning, at nine, when the same

complaints returned with violence, and continued till one o'clock. He is now pretty well, and can open his eyes, which do not seem, in the least, affected. He was bled yesterday in the evening, and, afterwards, got a vomit, which brought up a great deal of phlegm. He took a bolus of Rhubarb and Calomel, at bed-time, which has given him but two stools as yet. He was troubled with headach, violent cough, and other symptoms, about three weeks ago, from cold: but he had been above a week well, when his present complaints began. He has, formerly, had agues three different times. The first happened when he was very young, and was removed with difficulty.

June 3, eleven in the forenoon. He rested very well last night. He has had three more stools from the bolus. The pain, and other symptoms, returned this morning at eight, and have been more violent

violent than ever; but now begin to abate a little. He says, the pain affects the same place, and moves to and fro like the pendulum of a clock. When the clock strikes, which is in the same room with him, it distracts his head. His eye waters now very much: and he is obliged to keep it shut. When the pain abates, he grows warm. His pulse beats about eighty strokes in the minute.

Apply a large blister, between his shoulders, in the evening: and give him fifteen grains of the Aloetick Pills, at bed-time.

June 4. He had a slight fit to day; which came on about the usual time. He has had no stool.

Let him have a scruple of the same pills at bed time,

June 5. He has had a good night. He has had the same kind of pain, all yesterday and to day, in his forehead, but

in a very slight degree. The pain never passes beyond the right side of his forehead. He has had five stools since early in the morning.

Let him take fifteen grains of the Aloetick Pills, and a grain of Opium, at bed-time.

June 6. He has had a very good night; and has no complaint to day. He had two more stools yesterday; and none since.

Let him take twenty grains of the Aloetick Pills, and a grain of Opium, at bed-time.

June 8. He continues free from complaints.

This man, so far as I know, never had any return of this disorder.

CASE

C A S E XXVII.

A Phrenitis cured by purging.

JOHN SEXTON, a boatman, of Sawley, in Derbyshire, a middle aged person, had been ill for more than a week, when I was called to him. He had, in general, during this time been delirious, and often furious; and was then kept in bed by force. He had once sallied forth from his family, and was taken drinking at an ale-house in the village. I found him in bed. He was quite delirious. His eyes were staring and red. His pulse was quick. His skin was hot and dry. In his intervals he complained much of headach. In his raving fits, he said, he was not in his own house, that there were lice upon the bed, that he would not stay there, and offered violence to the people about him. His urine was high coloured

coloured, and without any tendency to separation.

August 13, 1776. Let him have broth, gruel, and barley water, by turns, for all his food. Let him take three large spoonfuls of the following mixture every four hours, beginning as soon as it can be got. It contains sixteen ounces of the Simple Alexeterial Water, four ounces of the Camphorated Julep, an ounce of the Common Manna, and half an ounce of Nitre.

August 15. I visited the patient again this day. He became quiet from the moment that he began with the mixture; which was in the evening: he has slept and dozed ever since, has had a stool almost every hour, during the use of it, and has made plenty of urine. The mixture was finished this morning at five: and he had his last stool at seven. His delirium is quite gone.
His

His skin is temperate, and moist. His pulse is calm. His urine is of a light orange colour, but still without any marks of separation. He only complained of some pain in his head, and of soreness all over him. He has some appetite: but the least thing satisfies it.

He is advised to continue the same method; and to take the medicine in less quantity, so as to keep the body gently open.

August 17. I am informed, to day, that he continues to mend; and that he makes plenty of urine, which is pale, and deposits a whitish sediment.

C A S E XXVIII.

A Laryngeal Quinsy cured.

Mr. JOHN RADFORD, of Holbrooke, in Derbyshire, of a thin habit, rather advanced

advanced in years, and subject, a great part of his life, to flatulent colicks; after standing, for a considerable time, over his workmen in a cold evening, in December, seventy-four, was seized with a shivering fit, which was succeeded by great heat and thirst. In three hours, the hot fit was accompanied with pain at the top of his wind-pipe, and great difficulty both in breathing and swallowing. These symptoms grew hourly worse. I saw him on the third night, at midnight. His breathing was hissing, and very difficult; his voice was gone; and he could not swallow any thing; for an attempt to swallow even a tea-spoonful of the mildest liquor, was so very painful to him, and so much phlegm was thrown up by the cough, which was excited by those efforts, that it was to be doubted, whether the least drop ever found a passage into the stomach. The phlegm, which he brought up on those occasions, was, for
the

the most part, pure and unmixed; though, now and then, dark streaks were observed in it. He never coughed at any other time. His face had a sunk, ghastly, appearance. His skin was hot and dry. His pulse was very quick and low. He was thirsty. He had some appetite. His urine was high coloured, and quickly became turbid, as though impregnated with brick-dust.—A blister was at his back, which had been applied at noon: and, by means of it, they said, his breathing was even freer than it had been. He could now open his mouth, so that a view could be got, though with much difficulty, of his throat internally; for, before, his jaws were quite locked. Nothing, however, could be perceived in the throat. His tongue was moist and white. There was no external swelling: but the right side of the larynx was very painful to the touch.

December

December 25, in the night. Let a blister be applied to the right side of the larynx: and let it remain thirty-six hours.—Let him breathe over the steams of hot water, for ten minutes, every three hours.—Let him have a clyster of salt and water immediately. And, after its operation, let the following solution be given in three quarters of a pint of weak broth, by way of clyster, to be retained; and to be repeated every three hours. The solution contains a dram of Nitre, in two ounces of spring water.

December 26, in the afternoon. All his symptoms are relieved. He can now swallow liquids, though with difficulty and pain. His pulse is firmer, and not so quick. His urine is copious, and of a better colour. He complains of being very low. The clysters have sometimes come away.

Let

Let the clysters be continued, with the addition of four drops of Laudanum to each.

Let him take, when low, a large spoonful of the following mixture; which contains seven ounces of the Simple Alexeterial Water, one ounce of the Simple Syrup and half a dram of the Volatile Salt of Hartshorn.

December 27. He has had a pretty good night. He continues to mend. He swallows freely.

Omit the clysters.—Let him take, every four hours, a draught, which contains two ounces of spring water, half an ounce of the Simple Syrup, and half a dram of pure Nitre.—Let him have weak broth, gruel, and barley water, by turns, for all his food.

December 28. All his complaints are greatly abated. He is much troubled with wind.

Let

Let him take a spoonful of the mixture, when troubled with wind.—Let him take, every six hours, the following draught ; which contains an ounce and a half of the Simple Alexeterial Water, half an ounce of the Camphorated Julep, two drams of the Syrup of Orange-peel, and twenty five grains of Nitre.

December 29. He has good nights. He has no pain, or difficulty, either in breathing, or swallowing. His spirits are better. His skin is temperate. His pulse is calm. His urine is copious, of a good colour, and without contents. He has a stool daily.

Let him continue the draughts, with only a scruple of Nitre in each.

December 30. He is rather costive.

Continue the draughts, with the addition of ten grains of the Polychrest Salt to each.

January

January 1, 1775. He has had no stool these two days.

Repeat the clyster of salt and water.—
Continue the draughts, with a scruple of the Polychrest Salt in each.

After this Mr. Radford recovered flesh and strength fast; and enjoyed a better state of health than he had done for years before. And, if I am rightly informed, he has continued healthy and well ever since.

Though the following case was unsuccessfully treated; yet I cannot help allowing it a place here, for reasons that shall be given in the next chapter.

C A S E XXIX.

A Laryngeal Quinsy.

March 15, at night, 1780. Mrs. Jackson,
of Scrafton, in Derbyshire, a widow, and
middle

middle aged, was seized on the 13th in the evening, with pain, and difficulty, both in swallowing and breathing; which complaints have been increasing ever since. This disorder was preceded by a chilliness, which was succeeded by heat: and, yesterday, she was cold and hot, by turns, most of the day; but so as never to be rightly warm. At present, her jaws are so locked, that it is with difficulty that the state of her throat can be seen internally. The right tonsil is a little swelled; but nothing more can be perceived amiss, all the other parts having a natural appearance. Her throat being syringed with a mild liquor, at my desire, a good deal of clear slime comes away. Her breathing is painful, difficult and hissing. She has hardly any voice. She can swallow very little, and that with great pain. Even the bare attempt toward swallowing gives her much pain. She calls the pain, a throbbing pain. The region of the right tonsil is painful

to the touch, and a little swelled. The whole course of the larynx, and the contiguous parts of the neck, are also painful to the touch. Her tongue is moist and white. She has no cough. Her skin is temperate: but she sits out of bed in her clothes. She says that she is hot in bed: but she dreads going to bed, because a recumbent posture increases her difficulty of breathing. Her pulse is rather low. and beats a hundred and twenty strokes in the minute. She has had no sleep ever since she was taken with this disorder. She has neither appetite nor thirst. Some urine made within these few hours, became soon of a milky colour, and continues so. She has, in general, been strong and healthy.

Last night she had a draught of Soluble Tartar and Tamarinds; which gave her four stools, and made her very low without relieving her disorder.—She has been using fumigations of Myrrh and Camphor, and has been syringing her throat with a liquor
of

of the same nature.—She laboured under a common inflammatory quinsy about two months ago.

Much the same method was recommended as in the preceding case.

March 16. I am informed that the pain left her in the morning, and that she could swallow much better, and thought herself better: but she soon after appeared, in every respect, worse; and died between three and four in the afternoon.

CHAP.

C H A P. III.

MEDICAL OBSERVATIONS.

ARTERIOTOMY is of very great antiquity: for we can trace it as far back as we have any records of medicine. I have no intention, however, at present, to give a general history of this subject. I mean, only, to consider the medical effects of that operation, which has been minutely described in some of the preceding pages. With this view, I have given a number of cases to the publick, as so many incontestable proofs of its efficacy, either as a radical, or as a palliative, cure, superior to any other means that had been tried for several obstinate diseases of the head. I shall make a few remarks on each of those diseases; and conclude with recommending the same practice in some other disorders of the head, comprehend-

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ing

ing the neck, according to the most common anatomical division of the human body.

S E C T. I.

OF THE HEADACH.

Headach is an appellation of great latitude, comprehending diseases of very different natures. The cases, above recorded, afford some variety of this disorder. The second, and tenth, cases were both, in my opinion, of a gouty nature; for each of those patients had shifting pains in different parts of their body after the headach was removed. And one of them was affected with the strangury, which has justly been considered by the late Doctor David Clerk as a symptom of the anomalous gout *.

* Essays and Observations Physical and Literary,
p. 442.

The thirteenth case happens very seldom in this country, being in a manner peculiar to warmer climates. It is, in general, considered as an inflammatory disease, and of very dangerous tendency. Our case seems to have depended, almost entirely, on pure membranous irritation. And it is curious to observe, how this irritation was first impressed, by the scorching rays of the sun, on the membranes of the brain; and thence communicated to the other membranes of the body, as of the first passages, the urinary organs, and the whole vascular system, occasioning symptoms peculiar to all the parts affected. In fact, this case, properly considered, is only a fever from heat. That cold acts most certainly as a febrile cause when applied to a particular part of the body, is now generally acknowledged. And the case under consideration is a demonstration of the same effect from a topical application of heat. Thus two causes, heat and cold, in

their own natures the most opposit eto one another, produce a disease of perfectly the same nature, to wit, fever ; and produce it too, in the same manner, by a partial application. The sixth case is a fever from cold. In both those cases, arteriotomy was of the greatest service for the head-ach.

The seventeenth case was certainly rheumatick ; for the lady had been afflicted with the rheumatism, for several years before, attended with a quick pulse, and fizy blood.

Such headachs as accompany the ophthalmia in general are owing to a sympathetick irritation. This is evident in the fourth, eighth, and fourteenth cases. And this sympathetick affection may at last become inflammatory: an instance of which we have in the fifth case. Or, both the head and eyes may be affected in the same manner from a common cause, as in the

the eighteenth case. Or the headach may, comparatively speaking, be the primary disorder; and so affect the eyes in the different ways mentioned, as in the ninth, tenth, and twelfth cases.

§ E C T. II.

OF THE HEMICRANY.

What has been said of the headach, in general, is also applicable to the hemicrany: for it admits of the same latitude as to its nature. Beside, the hemicrany is more commonly divisible into continual and intermittent. The proximate cause of the continual hemicrany is, sometimes, seated within the head. Of this, the fifth case is an example. The proximate cause of the intermittent hemicrany is never within the head. The pain, in this case, depends on pure membranous irritation, arising from
sympathy

sympathy with the proximate cause, which is lodged in the intestines. This disease, however, may, through bad treatment, be brought to the nature of a continual hemicrany, as in the eighteenth case. I have no reason to doubt that it was, at first, of an intermittent nature: but, through over indulgence, it was not only never suffered to intermit; but what was, at first, only a simple nervous irritation, was, by the same means, aggravated into an inflammatory affection; which, having thus become the principal disorder, I have considered it accordingly as a continual hemicrany. This inflammatory congestion was, probably, the cause of the watery effusion within the head, by impeding the action of the absorbents. And the opening of the Temporal Artery restored the absorption, by removing the inflammation. In whatever way the effects of arteriotomy were produced in this case, they were extraordinary; for the eye was restored to its natural

tural size, and every morbid symptom was removed, except the amaurosis. Indeed, could the patient have observed rules, there were even hopes that he might have obtained a complete cure.

From what has been said, it is evident that, the continual hemicrany is often a dangerous disease; though, when timely assistance is given, it is, for the most part, curable. Although the intermittent hemicrany be, from its own nature, never dangerous, and, although, there be an acknowledged analogy between it and intermittent fevers; yet, few disorders have given more trouble to the physician than this. It has, indeed, generally been found very difficult of cure. The Peruvian Bark, so far as I have observed, does hurt in this case. I have succeeded with Laxatives and Opium: of which the 26th case is an instance. And I have, formerly, recommended this method for the intermitting
oph-

thalsy*. But, as I had cured agues with hemlock, and even after the Bark had failed, it was natural for me to try this medicine in the intermitting hemicrany : and, from experience, I can hitherto say, that it always cures the disease ; and also renders the patient's general health better, perhaps, than it had been for long before. The nineteenth, and twenty-first, cases are given as proofs of the efficacy of hemlock in this disease.

S E C T. III.

O F T H E P H R E N I T I S.

The sixteenth case may justly be called an incipient phrenitis. In the phrenitis, arteriotomy is preferable to any other mode of drawing blood. But, when the patient is restless and intractable, as is generally

* A Treatise on the Kink Cough, p. 27, &c.

the case, blood-letting, of any sort, is attended with inconvenience. And, indeed, from what I have seen, I am induced to believe, that cooling and diluting means, which, at the same time, move powerfully by urine and stool, and, as much as possible without exciting irritation, make, at all times, a principal part of the cure; and act so effectually as, in many cases, to render bleeding unnecessary. Of this we have an example in the twenty-seventh case.

S E C T. IV.

OF THE OPHTHALMY.

This disorder occurs, like any other inflammation, either with, or without, fever. And though this last be oftenest the case; yet, the distinction ought always to be kept in view, as it much affects practice.

When

When the ophthalmy is accompanied with fever, you must principally attend to the latter, as being the cause of the former. You should, therefore, draw blood according to the urgency of the local disorder. If the inflammation be great, open the Temporal Artery, as being the most effectual palliative. If it is moderate, bleeding at the arm, and moderate bleeding too, will be sufficient. But the principal means of cure must be those which take off febrile irritation; such as cooling, diluting, laxative, and diuretick medicines, daily persisted in, till the fever either ceases entirely, or intermits. In this last case, the Peruvian Bark must be given to carry off the fever: and it will, generally, cure the ophthalmy at the same time. If the ophthalmy should, notwithstanding, continue; then draw blood from the Temporal Artery, which will, almost to a certainty, quickly remove it: and a continuance of the Bark will prevent its return.

When

When the ophthalmy is not attended with fever, you should immediately have recourse to the opening of the Temporal Artery, as being the most certain, and the most speedy means of cure yet known. If the inflammation does not depend on some constitutional defect, the cure will be radical. If otherwise, as in the cases of scrofula, obstructed menses, or the like, though the cure will not be complete; yet, if the disorder be very acute, arteriotomy is the most speedy, and the most effectual palliative.

As to external means; they must vary according to circumstances. The keeping of the eyes cool, and the exclusion of light, are, in every case of ophthalmy, indispensably necessary; and will often supersede all other topical applications. I am able to testify, that two or three drops of Laudanum, as recommended by Mess. Wathen

Wathen and Ware, is one of the best topical remedies for inflamed eyes *.

S E C T. V.

OF THE ALBUGO.

The word Leucoma is adopted, by Nosologists, as the generical name of this disease. And the species that occurs so often in the foregoing cases, and of which only I mean to treat, is called Albugo. I beg leave to adopt this word, for the English specifick name also; because our language does not afford a proper one. Even our generical name is a circumlocution: for speck, spot, or offuscation, are not rightly understood, till the name of the part affected is added. This disorder occurs so often in the foregoing cases, that it is necessary to say something of it here. In all the cases of the ophthalmia, where

* Remarks on the Ophthalmia &c. p. 29.

the Mercurial Laxative Pills were used, it was chiefly on account of the Albugo. And it is observable, that those pills were of the greatest service for this disorder. But it is likewise evident, that the cure of the inflammation was thereby retarded, frequent relapses of it having occurred, which could be imputed to nothing else, but to the patient's being more liable to catch cold, from the use of the mercury.

It is with peculiar satisfaction, therefore, that I can recommend, from experience, a more powerful remedy, even than mercury, for the Albugo; and which, at the same time, is free from its inconveniencies. I mean the Extract of Hemlock; which I have used often in this case. I have also found it an excellent remedy for the scrofulous ophthalmia. And as both those disorders yield, with great difficulty, to all other means hitherto tried, I have thought it right to shew the great efficacy of the Hemlock in each, by giving such
specimens

specimens as are to be found in the third section of the last chapter.

S E C T. VI.

OF THE AMAUROSIS,

The ninth case exhibits such a splendid effect of arteriotomy, in the Amaurosis, that, I flatter myself, for the future, in no instance will this deplorable, and too often incurable, disease, be abandoned, till this, among other powerful remedies, hath had a full trial. We have proved the efficacy of this operation to be sovereign for the removal of inflammation. In the ninth case, it seems to have carried off the disease by freeing the optick nerve from compression, probably, the effect of a slow congestion in the contiguous arterious ramifications. In the eighteenth case, it operated in the same manner, of
removing

removing congestion in the blood vessels, which was the cause of the watery effusion, by impeding the action of the absorbents. This leads us to extend the use of arteriotomy to the removal of some other diseases, as the dropfy of the head.

S E C T. VII.

OF THE APOPLEXY.

I once ordered the temporal artery to be opened for a man labouring under the apoplexy, at Wirksworth. He was a workman of some sort in Mr. Hurt's service: and the late Mr. Mellor was the surgeon. The artery bled very briskly: but after a good deal of blood had been lost, without any apparent good effect, I chose to desist; lest I should have been thought to take away that life, which it had not been
in

in my power to save*: for I was taught to believe, that blood-letting, if not useful, is not innocent in the apoplexy†. However, I am still of opinion, that, in such cases, arteriotomy ought to have a full trial; but with every precaution necessary for the reputation of the physician, and satisfaction of the patient's friend.

S E C T. VIII.

OF THE ANGINA, OR QUINSEY.

I have never tried the opening of the temporal artery in any species of the

* Ne occidisse, nisi servasset, videretur. Vid. Celsum in Praefat.

† Van Swieten. Commentar. Vol. iii. §. 1029.)

Quinsey:

quinsy: but I formerly recommended it for the common inflammatory quinsy*; and, likewise, for that species of the disease which is usually called the Croup||. As the common inflammatory quinsy very often occurs; and, when it has once happened, is very apt to return: beside, as it is very difficultly hindered from coming to suppuration, except when taken at the very beginning; and when it has once suppurated, it is still more difficult, in all future relapses, to prevent the same consequence; I would advise the use of arteriotomy, as a remedy, that bids fair for removing such an inflammation more speedily, and more effectually, than any of the means that have yet been tried.

I think that this operation ought to be practised in every other species of

* Dissert. de Arteriotomia, p. 36. || Ibid. p. 37.

purely inflammatory quinsy: and its use becomes indispensable, in proportion to the danger, or acuteness of the case. In particular, we ought to have recourse to it immediately, when called in cases affecting the top of the gullet, or wind-pipe, especially the latter. Though I cannot easily conceive, how an inflammation can exist in either of those parts, without both, to appearance, being equally affected, at least, from sympathy. The two last cases in this work, are instances of the inflammation of the top of the wind-pipe: and I have published them, because it is a disorder seldom met with in practice, and because our accounts of it, in books, are very imperfect.

CHAP.

C H A P. IV.

S T R I C T U R E S

ON THE USUAL

OPERATIONS FOR THE CATARACT:

AND A NEW ONE PROPOSED.

THE frequent difficulty in depressing a Cataract, and its being very apt to rise again, are two such capital objections to couching, that a new method of operating hath, perhaps, with great reason, been attempted. I must not, however, omit taking notice, that as we cannot be certain, that those Cataracts were thoroughly depressed, which afterwards rose again, so it might be worth while to ascertain this, by couching with a needle having a much broader point than has been

yet used. Such a large surface, being applied to any Cataract, could scarce fail of pushing it effectually down ; where, in all probability, it would continue for a considerable time ; even till the ruptured cells of the vitreous humour were reunited, when its ascent would become impossible. For, the event of couching is rendered precarious, not only on account of the small surface of the needle commonly employed, but also by reason of the resistance from the vitreous humour : for, though that part of the Cataract, on which the needle rests, quickly makes its way ; yet, the sides of it, especially if soft, are necessarily pushed upwards, and having never been applied to the bottom of the eye, the whole is kept suspended, and soon returns again to its former place. Whereas, if the Cataract be compleatly depressed upon its largest surface, hydrostatical experiments would induce us to expect the consequence which

which we have just now mentioned. This, to be sure, is obvious to every person: and I can see no reason why it was not practised long ago, unless from an apprehension of bad effects from cutting into the ball of the eye, which later experience shews to have been ill-founded.

Couching is so neat and simple an operation, that every humane person must be interested for its success. And, indeed, at any rate, the method of extraction, hitherto practised, does not appear to be a remarkable improvement; seeing its inconveniencies are not only more numerous, but also often productive of worse consequences.

For, first, in running the knife through the cornea lucida, so very near the Iris, it is sometimes scarce possible to shun it, on account of the quick involuntary motions of the eye.

Secondly,

Secondly, supposing the operator has kept clear of the Iris; yet, this being a muscular part, it is brought, by the pain, into violent contractions, at the very time when the cataract is forced through it, which must distract and tear it; and the more, as even at its greatest natural dilatation, it is not fit to transmit so large a body, as the crystalline lens. That such a laceration always takes place, I have no reason to doubt; since, in all the cases that I remember to have seen, the pupil was wide, unequal, and immovable, after the operation. It is no wonder, therefore, that a smart inflammation should be the general consequence of this operation.

Thirdly, as the capsules of the crystalline, and vitreous humours, are one continued membrane, the adhesion, on that account, is so great, that, generally, the lens cannot be forced out, even by pressure upon the eye, without previously wounding

wounding the capsule: by which means, this membrane is left behind. Now, the disease is often in the capsule, as well as in the lens: and, therefore, when the former is left behind, matters are much as they were; for it hangs, like a curtain, before the sight, and, unless at the particular part where it has been torn, the patient sees no better than before. Of this I have seen more instances than one.

Fourthly, in spite of every precaution, offuscations will be produced on the cornea lucida; which, though, at first, not opposite to the pupil, will, in some habits, spread so as to intercept the sight.

Finally, supposing all those inconveniencies, and others too, which could be mentioned, may, now and then, be shunned; yet, that can only happen under the hands of a Daviel, a person very much conversant in the practice of this operation:

tion: this objection is of great moment; since any thing, that promises much utility to mankind, ought, if possible, to be rendered easy and practicable, that it may be dispersed into many hands.

From what has been said, it appears, that though the most certain means of getting rid of a cataract is by extraction; yet, that operation, as hitherto practised, is liable to so many inconveniencies, and requires such a nice observance of circumstances, that it is scarce probable it will ever become general.

This gives every person a title to propose whatever seems most likely to succeed: nay, it is their duty so to do. I shall, therefore, without any apology, describe the method which I would recommend, being the result of a number of trials made on dead bodies.

§ 1. The

§ 1. The patient being conveniently seated, as usual, an assistant is to keep the palpebræ wide open, by taking hold of the eyelashes.

§ 2. The operator, having made the patient look towards his nose, instantly pushes the cutting forceps into the albuginea, at the distance of about one fourth of an inch from the cornea lucida, and in a plane parallel to that of the iris.

§ 3. The lancet being introduced as far as it will go, he allows the forceps to open a very little, that the lancet may fly back; and then presses the toes of the forceps together, as before, and introduces them between the Iris and Cataract, into the aqueous chamber.

§ 4. Having thus got a view of the forceps, he draws it gently back again, till its point touches the external edge of the
cataract:

cataract: and then allowing it to open sufficiently,

§ 5. He pushes his instrument cautiously forwards, till he sees that the external leg of it has got over the cataract: he then takes a very gentle hold of it, and extracts it.

The assistant can, very easily, keep the eyelids asunder, without incommoding the surgeon, by taking hold of the eyelashes as directed (§ 1.): and this is also the firmest gripe, and easiest for the patient.—When those hairs are wanting, it will be necessary to keep the eyelids open, by pressing the upper one against the brow, and the lower against the cheek-bone, a fold of linen being placed between them, and the assistant's finger, to prevent their sliding, by the watering of the eye. However, in this case, perhaps, the operator may

may find it more convenient to keep down the lower eyelid himself.

The operator needs not be very anxious with regard to the place where he makes his opening. It is intended, that the knife should not be pushed in directly upon the cataract; because that might tear, or dislodge it, which would render the extraction more difficult. But, suppose the knife was put in opposite to the cataract; yet, the operator may keep clear of it, by directing the point of his knife a little inwardly, towards the bottom of the eye. On this account, he ought not to hesitate long before he makes his incision. (§ 2.): for, by so doing, he will both fatigue himself, and the patient, without any necessity; and render the event of the operation more precarious, by spoiling the steadiness of his hand.

As

As we cannot know but the Cataract may be soft, it will always be prudent to take a very slight hold of it. And much pressure is the less necessary, as the legs of the forceps are scabrous internally. But if, either from extreme softness, or increased bulk, the extraction by the forceps should be less convenient, it may be effected in this manner.—Having introduced the forceps into the eye, as above directed (§ 2.), in order to keep that organ stable, and the wound distended, extract the Cataract between its legs, by means of a hook, or rather a small scoop.

When the Cataract adheres to the Iris, a case hitherto deemed incurable, you are to separate it by the forceps, before you attempt to extract, or take hold of it.

This Posterior Method seems to require less nicety in the performance, than
even

even bleeding at the arm; an operation so common, that every gardener takes upon him to perform it, and generally performs it too with success. Besides, all the objections commonly made, either to couching, or to Daviel's method, are obviated by it; for, whether the Cataract be firm or soft, adhering, or loose, a membrane in the aqueous humour, or an opacity of the lens, or of its capsule, it makes no odds: neither, in this way, can the lucid cornea, or iris, be injured with any degree of probability.

Objections have been made to this operation; but scarce any that deserve notice. Experience alone can shew its disadvantages. The cutting of larger vessels, than are to be met with in the cornea lucida, may be of use; topical bleedings, we know, rather prevent, than occasion, inflammations; and the blood will ooze out at

at the opening, and not blend with the vitreous humour.

THE DESCRIPTION OF THE CUTTING FORCEPS.

FIG. VI.

This instrument is represented of the natural size *. It is five inches long: and its external structure is divisible into two parts, a forceps, and a cylindrical tube. These contain two other parts, to wit, a spiral spring, and knife, or lancet. Each shall be described, according to the order in which they are here mentioned.

The forceps is made in this manner. Two plates are foldered to the same end of a cylindrical tube, but opposite to each

* All the nine figures, in the plate, are representations of the natural size.

other, and within the bore. These plates, therefore, form the legs of the forceps. Each leg is about two inches long; and begins with a narrow neck, which, in length, as well as breadth, measures two eighths of an inch. It then becomes broader, measuring, both ways, three eighths of an inch. After this, it tapers gradually till it becomes an eighth of an inch broad; when it continues of an equal width to the point, which is for about half an inch. The point is rounded. The legs of the forceps are very thin, and extremely well polished; only the internal surface of each, at the small extremity, or toe, is scabrous: and about the middle of each, internally, there is a short pin.—The tubular part of the forceps, is about half an inch long: and, near its upper end, there is a transverse slit, which is terminated, at one end, by an internal perpendicular groove.

The

The second part of this instrument is a tube, whose length is three inches, and bore about two tenths of an inch. This long tube is very slender; a good deal more so than the other, which is the connecting medium of the whole. About two tenths of an inch from its lower end, there is a small short pin. This long tube is so contrived, as to slide exactly within the bore of the tubular part of the forceps, the pin corresponding to the groove. And, after it is fully introduced, the one tube being turned a little within the other, both are secured together by means of the pin, which now lodges in the transverse slit.—The broad part of the forceps is intended as a lodgment for the blade of the knife: and the knobs, observable in the figure, are productions from the blade, which shall be spoken to afterwards.

FIG.

FIG. VII,

Exhibits a view of the spiral spring.

This spiral spring is made of steel wire*. It is nearly of an equal length with the long tube. The threads are about a line distant from each other. And the transverse diameter of the spring corresponds to the bore of the tube. The spring must be made of very small wire; otherwise it will be too stiff for the purpose.

* All the parts of this instrument, except the spring and knife, are made of brass.

FIG. VIII,

Exhibits a view of the knife.

The blade is of a triangular shape. At its upper part, exclusive of the knobs, it is five lines broad. It then tapers very quickly to its point; so that it is not four lines long. There are small horizontal knobs, jetting out from each upper angle, which serve a double purpose, namely, for pulling down the knife, when the instrument is to be used, and for keeping it from plunging altogether into the body of the eye, when making the incision — The stalk of this knife is very slender, and equal in length to the two tubes when joined together. A transverse section of it is quadrangular; except at its upper extremity, which is formed into a male screw. Upon this is fixed, by a female screw, through its center, a small

small round plate. This plate, as to breadth, corresponds exactly with the bore of the long tube; so that it may slide easily backward and forward within it. Its uses are to make the knife move steadily and easily, between the legs of the forceps; and to draw together the threads of the spring, when the knife is pulled down.—About a quarter of an inch from the blade there is a row of three notches, or blind holes, on each side of the stalk, opposite to the legs of the forceps. These notches correspond to the pins in the forceps, in order to secure the knife from slipping, when it is brought down to its proper place for operating, as in

FIG. IX.

The parts of the instrument, thus described, are constructed in the following manner.

The

The blade of the knife is lodged within the forceps, the stalk having been put through the tubular part of it; the spiral spring is put upon the stalk; the plate is screwed on; and, lastly, the whole being introduced into the long tube, it is slid into the short one, in the manner which has been described.—While the instrument is in this situation, the blade of the knife lies concealed in the broadest part of the forceps, as has been already observed (FIG. 6.). But, when it is to be used, the blade is pulled down, so that its point may project a little beyond the extremity of the forceps (FIG. 9.). In order to this, you are to hold the instrument in one hand, and pull down the knife with the other, by resting your forefinger upon one knob, and your thumb upon the other. After the knife is brought down to its place, you must keep a firm hold of it, by means of the forceps, in the same manner that a pen is held.—

held.—As soon as the pressure is taken off from the legs of the forceps, the spring, by its elasticity, returns to its former length; and, of course, the knife recedes within the broadest part of the forceps, as before.

F I N I S.

held. As soon as the pressure is taken off from the leg of the forceps, the spring, by its elasticity, returns to its former length; and, of course, the little needles come within the broadest part of the forceps as before.

FIG. 1. N. 1. 2.

Fig. 1.



Fig. 3.



Fig. 2. A.



Fig. 2. B.



Fig. 4.



Fig. 5.

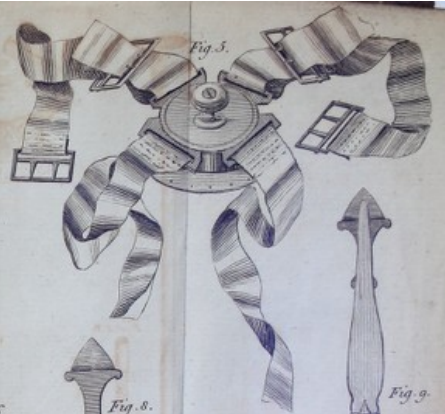


Fig. 6.



Fig. 8.



Fig. 7.



Fig. 9.



