

**Cases and remarks in surgery : to which is subjoined, an appendix, containing the method of curing the bronchocele in Coventry / by B. Wilmer.**

**Contributors**

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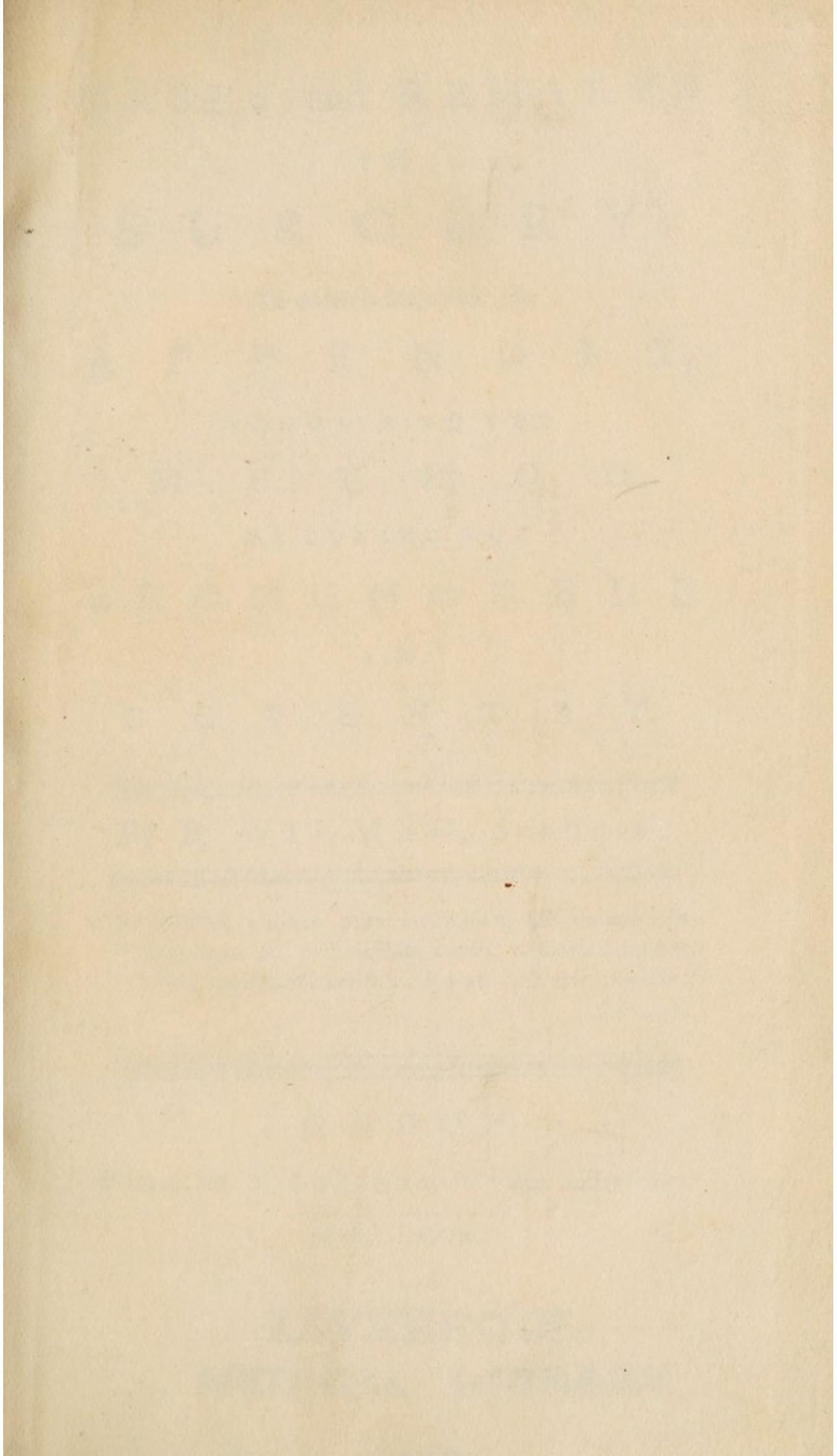
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CASES and REMARKS  
IN  
SURGERY:

To which is subjoined, An

A P P E N D I X,

CONTAINING THE

M E T H O D

OF CURING THE

B R O N C H O C E L E

I N

C O V E N T R Y.

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By B. WILMER, SURGEON.

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“Rationalem quidem puto medicinam esse debere: in-  
“strui vero ab evidendis causis, obscuris omnibus,  
“non a cogitatione artificis, sed ab ipsa arte rejectis.”

CELSUS.

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L O N D O N,

Printed for T. LONGMAN, in Pater-noster-row.

M.DCC.LXXIX.

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WELLS and REMARKS

SURGERY  
190403

A. P. B. N. D. I. X.

CONTAINING

M. E. T. H. O. D.

OF CURING THE

BRONCHITIS



By A. P. B. N. D. I. X.

LONDON

Printed by T. J. B. N. D. I. X. in London

1904

LONDON

Printed by T. J. B. N. D. I. X. in London

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WELLS and REMARKS



## DEDICATION.

riods of my life :—to that circumstance, whatever advances I may have made in my profession, are principally to be attributed.

INFLUENCED, therefore, upon the present occasion, by no other motives than those of the sincerest gratitude and respect, I shall forbear offending your delicacy, thro' a vain attempt to impress the world with a more favourable opinion than they already entertain, of your character and abilities :—You will permit me, however, to conclude this address, with my most ardent wishes for your long enjoyment of that health, which you are every day communicating to others : and of that happiness, which from the  
most

## DEDICATION.

most ample experience, *you* know  
to be the genuine result of benevo-  
lent actions.

I am, S I R,

With the greatest Esteem,

Your most obliged,

Humble Servant,

Coventry,  
July 20, 1779.

B. WILMER.

DEDICATION.

most ample experience, you know  
to be the genuine result of benevo-  
lent actions.

I am, SIR,

Humble Servant,

R. WILLIAMS.

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## INTRODUCTION.

**I**T is now, I believe, universally acknowledged, that science in general, hath received more advantages from experimental enquiries into truth, than from all the speculative theories of the ancients.

By a diligent attention to the appearances of diseases, and the obvious designs of nature in relieving them, the practice of physic is reduced to more certain principles than heretofore; and Surgery, which at the commencement of the present century, was in the most contemptible state, hath of late years, in this country, arrived at a great degree of perfection.

ONE cause of the present improved state of Surgery in England, was the act

## INTRODUCTION.

of parliament in the year 1745, by which the Surgeons company was made a distinct corporation from the Barbers \*. Previous to that period, and at a time when France was giving every possible encouragement to Surgery and Anatomy, the progress of these sciences in this kingdom, was not in the least regarded.——“ The members of  
“ the company in London were subject to  
“ heavy fines and expences, and liable to  
“ serve many troublesome offices, from  
“ which they are now exempted. The  
“ governors of the London hospitals, from  
“ an ill-judged policy, entirely refused the  
“ education of pupils at one house, and

\* The Surgeons and Barbers were incorporated by the 32d of Henry VIII. The preamble of this act sets forth, that “ the said two several and distinct companies of  
“ Surgeons and Barbers were necessary to be united, and  
“ made one body corporate, to the intent, that by their  
“ union, and often assembling together, the good, and  
“ due order, exercise, and knowledge, in the said sci-  
“ ence or faculty of Surgery, should be, as well in spe-  
“ culation as in practice, both to themselves, and their  
“ servants, and apprentices; and by their *learning*, and  
“ diligent, and ripe informations, more perfect, speedy,  
“ and effectual:” it was therefore enacted, &c. This act was repealed by the 18th of George II.

“ allowed

## INTRODUCTION.

“ allowed of the attendance of only nine  
“ at a time at the other \*.”

AT the same time also, the leading members of the Barber Surgeons company, contrived a bye-law, to prevent the knowledge of anatomy from *spreading*: they levied a penalty of ten pounds, on any person who should dissect a body out of the hall without their leave (which was not to be obtained) and every offender was sure to be prosecuted.

IT hath been a custom with me, whenever I have been concerned in any case, remarkable for the variety of its circumstances: or where, the methods put in practice for the cure, had any unexpected effects, to make memorandums of it.

THE present CASES, are selected from observations made in this manner, during a practice of eight years.

\* Cheselden's Remarks at the end of Gataker's translation of Le Dran's Operations.

WHATEVER

## INTRODUCTION.

WHEREVER any remarks are annexed to a case, it hath been my earnest wish to avoid theoretic reasoning, and confine myself to the more obvious and simple deductions, naturally arising from the subject: I must take the liberty of adding, that a particular regard to fidelity hath been observed in the narration of events.

RELATIONS of fruitless attempts, or even errors in the treatment of diseases, may furnish matter of instruction: these cases, therefore, are not intended to exhibit a series of *successful* practice only: and the reader may expect to meet with disappointments as well as mistakes; whenever such circumstances have happened, they have, without reserve, been acknowledged.

THE present method of cutting for the stone in England, hath (at least in my opinion) been very ill related in all the published accounts upon the subject: and the different processes of that operation have been either cursorily passed over, or described in a confused indistinct manner.—

This,

## INTRODUCTION.

This, I hope, will serve as a sufficient excuse, for attempting to give a more accurate description of lithotomy.

UPON the whole, should the contents of the following pages prove, in any respect, useful to the younger Practitioner, the intention of the Editor in their publication, will be fully answered.

This I hope, will serve as a sufficient excuse, for attempting to give a more accurate description of the history.

**DIRECTIONS to the BOOKBINDER.**

Upon the whole, should the contents of the following be

**PLATE I.** to face page 70.  
**PLATE II.** after the last Case of fractures, and immediately before the Appendix.

**EXPLANATION of PLATE II.**

- FIG. 1.** The inferior splint.
- FIG. 2.** The superior splint.
- FIG. 3.** The splints applied over the foliated bandage, upon the leg and thigh.

The splints should be made of a thin plate of iron, well hammered to the shape of the parts; they should be covered externally with leather, lined with dimity, and well stuffed with combed wool.

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## ERRATA.

Page 18, Line 4, *for* exomphalus, *read* exomphalos.  
— 46, — 15, — expoliation, — exfoliation.  
— 47, — 14, — dilitation, — dilatation.  
— 65, — 13, — boney, — bony.  
— 81, — 14, — affect, — effect.  
— 96, — 21, — scirrhou, — scirrhous.  
— 156, — 22, — groove-staff, — grooved-staff.

## CASES

ERRATA

Page 12, line 4. The word "and" is omitted.  
--- 13. --- "and" is omitted.  
--- 14. --- "and" is omitted.  
--- 15. --- "and" is omitted.  
--- 16. --- "and" is omitted.  
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CASES

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CASES AND REMARKS

IN

SURGERY.

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OBSERVATIONS ON STRANGULATED HERNIÆ.

**O**F all the diseases to which the human body is subject, there are none more dangerous in their tendency, nor any more speedily fatal in their event, than strangulated herniæ, especially if they are neglected, or improperly treated. After the great pains which the moderns have taken to improve this part of Surgery, and the publication of an ingenious treatise written professedly upon the subject, by a celebrated Surgeon \* of Lon-

\* Mr. Pott.

B

don,

don, an attempt to throw any new light upon it will probably be deemed unnecessary, if not presumptuous. The only apology I shall make for entering upon this topic is, to declare, that the observations I have to offer are the pure result of practical experience.

BATHS, fomentations, and poultices actually *warm*, or *hot*, are very much, I believe I might say generally, used in this country in all cases of herniæ, under symptoms of strangulation.

THIS kind of practice appears to me so extremely injudicious, that I have often wondered how it could, for any length of time, preserve so great a degree of reputation. But as erroneous ideas must of consequence produce improper methods of practice, the custom of applying things actually warm in these cases, was probably grounded upon the supposition of a diseased state, or stricture, of the tendinous apertures of the abdominal muscles, or ligaments. When a portion of omentum,  
intestine,

intestine, or both, is forced out of the cavity of the abdomen into the groin, the person is said to have a bubonocoele. This effect cannot happen, unless the opening of the tendon of the external oblique muscle is preternaturally extended. It is frequently found that the contents of the hernia, from the horizontal position of the patient in the night, recede into the abdomen, and prolapse again the following day. During the recession of the parts, the surgeon may push the integuments before his finger, and introduce its point into the opening of the tendon, and he will find that it is much larger than it usually is in a natural state; and, if either from a protrusion of a larger portion of the intestine, omentum, or of both, the contents cannot be easily returned, there is a sudden increase of the tumour, by degrees the parts indurate, and the case becomes a strangulated hernia. In this case a strangulation does not take place because the opening is *less* than it was before the symptoms came on, but because the parts so displaced are become *larger*.

AND, just for the same reason, when a small portion of intestine only is, from sudden violence, or muscular exertion, forced through the tendinous opening, it becomes strangulated, not because there was at that moment any particular alteration or stricture in the fibres of the tendon, but because the portion of intestine lying in an uneasy situation, increases in bulk, and therefore cannot be returned without some difficulty. If a ring is drawn over the finger tight enough to compress the returning veins, the parts beneath it will swell. Here is a strangulation, and it may be said that the ring forms the stricture. But I believe no man in his senses would in this case propose, by putting the finger into warm water, to make the ring larger, or to diminish the tumour, by increasing the capacity of the whole vascular system of the part so strangulated. My reason for making this comparison is, because it is now generally allowed, that tendons, ligaments, &c. have so little elasticity, as to be but slightly affected (at least suddenly) by warm applications, especially

cially when they are situated at some distance from the skin.

IN every strangulated hernia, before reduction can be effected, one or other of these things must happen: either the opening of the tendon must be made larger, or the bulk of the tumour must be lessened. There seems to be very little chance, by warm applications to the skin, to relax an inelastic substance, even in an undiseased state; and they appear diametrically opposite to the intention of reducing the bulk of the tumour, when strangulation hath taken place. If the rupture is an enterocele, all applications that are warmer than the heat of the body, will rarefy and expand the air within the intestine, the blood will be solicited in greater quantities into the vascular system of the part, and every symptom dependant upon strangulation will become worse\*.

IN

\* Dr. Huxham relates a case, where an inguinal hernia proved fatal in two days, and in which *warm fomentations* were continually applied. Upon dissection, the blood-vessels of the parts were turgid and varicose, and

IN the operation of bleeding, the forearm may be said to be strangulated by the ligature; and if, to facilitate the evacuation, the surgeon immerses his patient's arm in warm water, the veins and the parts below the bandage immediately swell.

IT would be absurd to offer any more arguments in support of a proposition, which in its own nature appears to be self-evident. For some years past, whenever I have been called to a strangulated rupture, I have made it my first business to endeavour to lessen the bulk of the tumour by *cold*, and sometimes astringent applications: and the success I have met with from this mode of treatment, is my principal inducement for communicating it to the public.

the intestine within the hernial sac amazingly distended with air. The Doctor concludes the account with these remarks: "This unhappy case gave me a severe reflection; and I cannot but think the malady was much increased by the repeated application of the hot fomentations, as it rarefied the air greatly, and, by relaxing the parts, gave further room to the vast expansion." Philosoph. Transact. N<sup>o</sup> 459. p. 623.

I COULD produce many instances, where there was little apparent reason to expect a reduction (as well from the violence as the duration of the symptoms) in which I have happily succeeded, by the application of cold water or vinegar. To avoid unnecessary repetitions, I shall select two or three cases where other surgeons were concerned with me.

I WAS sent for into Leicestershire, to the Rev. Mr. K——. I found him with most of the symptoms usually attending a strangulated hernia. I was informed that, for several years, he had a small swelling in the groin, which, two days before I saw him, had been, by walking, suddenly increased: nothing had passed through the intestinal canal since this accession to the contents of the hernia. He vomited and hiccoughed frequently, had great pain in the tumour, as well as in the hypogastric region, and his pulse was extremely low and weak. Mr. Jervis, an ingenious surgeon of Lutterworth, and formerly house-surgeon to St. George's-hospital, had attended him

CASE I.  
Dec. 1, 1774.

from the commencement of the symptoms, had done every thing which could obtain a sanction from modern practice, to relieve him, and from time to time had made several attempts, by manual assistance, to reduce the prolapsed parts, without being fortunate enough to succeed. Warm fomentations, and the tobacco clyster (which had never failed with Heister) had been here used ineffectually. Mr. Jervis was so confident, that every thing which promised to serve the patient had been put in practice, that he proposed to our consideration the operation for the bubonocoele, as the only probable chance remaining of saving his life. Before we proceeded, I desired that cold applications might be tried, to which he very readily assented.

THE weather was severe at this time: compresses of linen, dipped in cold vinegar, were suddenly applied to the tumour; and, as often as they became warm, were removed, and fresh ones used in their place. The patient was soon sensible of a retraction of the parts within the hernia;

and we could quickly after perceive, that the tension and induration of the tumour were considerably diminished. Upon attempting then to reduce the intestine with the fingers, the air contained within was observed to move first, and soon after all the contents of the hernia were returned into the cavity of the abdomen, with the greatest ease imaginable \*.

I WAS sent for to Mrs. M—, of Withy-  
brook in this county, to advise with Mr. CASE II.  
Sep. 27, 1775.  
Welton, a surgeon and apothecary of Bed-  
worth, concerning the necessity of perform-  
ing the operation for the bubonocoele.

THE tumour was small and painful: she had been ill three days before I saw her. Her pulse was quick and weak; her tongue brown; she vomited often; was costive, and much fatigued with an hiccough. Mr. Welton had bled her, ordered clysters re-

\* I lately met Mr. Jervis, on account of an amputation of the thigh, and had the pleasure to hear, that he had been sent for by a surgeon, to perform the operation for the bubonocoele, and had happily succeeded in the reduction by cold applications, at a time when the case appeared desperate.

peatedly,

peatedly, *warm* fomentations had been used, and endeavours frequently made to reduce the hernia, but without the desired effect.

By means of compresses, wetted with vinegar, applied *cold*, and by gently pressing the parts with my fingers, I obtained, in a very short time, a complete reduction of the hernia, and the patient became soon well.

CASE III. SOME time after this I was called to J—— D——, of Stoke, near this place, labouring under a strangulated rupture. I ordered cold applications, and endeavoured to return the intestine, but could not succeed at that time. I then directed the compresses to be frequently changed during the succeeding night, and before morning the contents of the tumour had spontaneously receded into the abdomen.

I BELIEVE it happens more frequently than is generally imagined, that the impediment to the reduction of the contents  
of

of a hernia, is in no degree connected with the tendinous opening of the external oblique muscle of the abdomen \*. Every one in the least conversant with anatomy knows now, that what used improperly to be called the *ring* of the muscle, is nothing else but a divarication of the fibres of the tendon, running obliquely downward; so that, in the case of great compressure from the superior edge of the aperture upon the hernial sac, it is natural to suppose, that the prolapsed parts might easily push or force their way toward the os pubis, where the fibres of the tendon divaricate most. The neck, or orifice, of the hernial sac, must be a circle, or nearly so: and should that be so diseased, thickened, or altered from its natural state, as to prevent the contents of the hernia from being returned into the abdomen, it would become a cause of strangulation, much more dangerous than any pressure which the tendon of the external oblique muscle could occasion, and constitute a case where

\* Vide Arnaud's Dissertation on Hernias, Part II. Sect. 2.

warm applications must be altogether ineffectual, because the part intended to be softened by them is so much more out of their reach.

NOTWITHSTANDING the success I have had in reducing hernias by cold applications, after every thing else had failed, I have, within these eight years, been obliged to perform the operation for the bubonocœle four times. In two of these cases, the impossibility of reduction appeared to have arisen from the induration and smallness of the diameter of the *neck* of the hernial sac. The first person I operated upon lost his life, after the tendinous aperture of the external oblique muscle had been largely dilated. Upon dissection of the parts after death, a small duplicature of the ileum was found so strongly embraced by the *neck* of the sac, that it could not be disengaged until the stricture was divided by the knife. In this case the neck of the sac was hard, firm, thickened, cartilaginous, and resembled the *os tinæ*.

MR.

MR. Harrold, a very eminent and judicious Surgeon of this city (to whom I am under the greatest obligations) did me the favour to attend the operation and the examination of the body.

THE next case that occurred, in which the impediment to reduction appeared to have arisen from a stricture of the *neck* of the hernial sac *only*, had a more favourable termination.

J—— C—— of this city, was seized with a violent pain in the inferior part of the abdomen: which was succeeded by vomiting and costiveness.

CASE IV.  
Apr. 5, 1774.

ON the third day of his illness I first saw him, and found, upon enquiry, that he had a swelling in his left groin, which was then become very painful; and that various methods had been ineffectually tried for his relief.

AFTER having used cold applications to the part, I endeavoured to procure a reduction

duction of the hernial contents, but without success.

THE patient was reduced much, and the bad symptoms had made an alarming progress: I therefore desired a consultation might be had. In the afternoon of the third day, Dr. Simson, a very ingenious physician of this place, Mr. Harrold, and myself, determined, that the operation for the bubonocoele could not any longer be prudently delayed.

AFTER the hernial sac was opened, and the tendon of the external oblique muscle largely divided, it was found impossible to return the intestine into the cavity of the abdomen. The part prolapsed, appeared to have been a duplicature of the ileum, extremely inflamed, and had many little extravasations of blood between its coats. I pushed my finger within the sac, and perceived a stricture in its neck, which forcibly resisted the reduction of the intestine.

HAVING

HAVING secured the intestine with my finger, I, with some difficulty, forced the obtuse point of the curved bistory through the stricture, and divided it.

THE intestine was then easily returned, and the patient recovered perfect health, without the intervention of any particular occurrence.

ONE might with great propriety compare the paraphymosis with the strangulated hernia, were it not, that the parts concerned in the latter case are essentially necessary to life, and in the former not so.

IN the paraphymosis, the orifice of the retracted prepuce is not large enough to allow the tumefied glans penis to pass through it.

IT would be absurd to suppose, that bathing the part in *warm* water, or applying round it an emollient poultice, would relax the stricture in so great a degree, as it would occasion the glans penis to increase

crease in size.—And yet, absurd as the practice may appear, and notwithstanding Celsus \* and others, have given us excellent directions to the contrary, emollient poultices and warm fomentations, continue to be employed in this disease.

THE first necessary business in this case, as well as in the strangulated hernia, is, so far to reduce the bulk of the tumid part by *cold* applications, and a well regulated gradual pressure, as to enable it to be passed through the stricture, the very idea of *relaxing* which, should be *totally* given up.

CELSUS † hath well observed the effects of heat and cold in these cases; some modern writers ‖ have also recommended the use of cold applications for the reduction of herniæ; and there have been others, who have expressed their fears,

\* Corn. Cels. de Medicin. Lib. VII. Cap. XXV. p. 472.

† At si intestinum quoque descendit, &c. frigore omni contrahitur, calore diffunditur. Cels. de Medic. Lib. VII. cap. XVIII. p. 457.

‖ Poteau, Goulard, and Aiken.

that the sudden use of them to an inflamed part, might endanger a gangrene; but, as I have never seen this happen, I cannot say any thing to it from experience. Upon the same occasion (the reduction of herniæ) M. Belloste \* has advised the application of astringents, in preference to emollients.

IN the summer season, perhaps common water or vinegar might not be cold enough to answer the desired purpose: but in many places preserved ice may be had; and there are various methods of creating artificial cold †, neutral salts whilst they are dissolving, increase the coldness of water.

SOME

\* *Le Chirurgien d'Hôpital, troisième partie, Chapitre III. p. 267.* In the second edition of the Hospital Surgeon, printed in the year 1773, M. Belloste has recommended cold applications for the reduction of strangulated herniæ. *Le Chir. d'Hôpit. Tom. II. p. 126.*

† The greatest degree of artificial cold is occasioned by pouring the nitrous acid upon snow. In the month of December 1759, at Petersburg, there happened a frost, much more severe than had been remembered before at that place. On the 14th of December, De Lisle's thermometer stood at 212, equal to 42 degrees below the  
C
cypher

SOME time since I was favoured with a letter from Mr. William Sharp upon this subject.—He acquainted me, that he had applied ice to an exomphalos, attended with very urgent and dangerous symptoms.—Although it did not immediately succeed, yet by a diligent perseverance in its use, it answered his most sanguine expectations. It reduced the bulk of the tumour, and removed those symptoms which appeared to have been occasioned by a strangulation of the parts.

cypher on Fahrenheit's. Mr. Braun procured four different glasses, containing snow, upon which he poured some of Glauber's spirit of nitre; having now immersed the bulb of the thermometer successively in them all, he found that he had increased the natural cold 58 degrees; and upon his taking it out, to his great surprize, he discovered, that the mercury had become solid and congealed: that, when it was taken out of the glass it was malleable, and was 12 minutes before it recovered its fluidity in the open air. De Admirando Frigore artificiali, quo Mercurius est congelatus, &c. à J. A. Braunio, Acad. Scient. Memb. &c.

OBSER-

OBSERVATIONS ON THE  
HERNIA HUMORALIS.

**I**T very frequently happens in the venereal gonorrhœa, from taking cold, from the improper use of injections, from the introduction of a bougie, and possibly from other causes, that both testicles become painful, swollen, and inflamed.

If relief is not soon obtained by rest, proper evacuations, &c. the disease increases very rapidly, the spermatic chord becomes large, hard, and irritable, and there is a sudden dilatation of the whole vascular compages of the testis, particularly of the epididymis.—The vas deferens, and the vena spermatica, become varicous; the pain extends to the loins, and from the extreme irritation of the parts affected, heat, thirst, and other febrile symptoms supervene.

IF the case has been mismanaged, or the patient obliged to use exercise, &c. the inflammation is communicated to the skin of the scrotum, and suppuration is either threatened, or does, in some instances, actually take place. That this event should *ever* happen, appears to be more the consequence of some error in the *external* treatment of the disease, than from any *natural* tendency, which this particular inflammation has to suppurate. — There can be very few exceptions to the desire, that all Surgeons have to cure almost every species of inflammation by dispersion; but in the case we are now speaking of, there are many very material reasons, why suppuration should be guarded against, as much as possible.

AFTER having gone through all the pain and fatigue, which necessarily accompany that *degree* of inflammation which precedes suppuration, the patient must suffer a long time the disagreeable discharge from a painful sore, which may at last become fistulous.

THAT

THAT the inflammation does sometimes terminate in this manner, we may learn from the observations of the celebrated Astruc\*.

DR. VAUGHAN † relates the case of a gentleman, who having contracted a gonorrhœa, which was soon apparently cured by an injection: a stricture of the urethra succeeded, for which the patient used a bougie.—After some time, a swelling of the testicles commenced, which, before the Doctor was consulted, had increased to a very alarming degree; and notwithstanding the care, attention, and ability of his physician, the patient died after suppuration had taken place.—*Warm* fomentations and emollient cataplasms, were very liberally used in this case: of the impropriety of which, I shall have occasion to speak hereafter.

\* Si resolutio non successerit, *sæpius* in suppuratum abire, ruptoque abscessu in *fistulosum* ulcus degenerare. Astruc de Morbis Vener. Lib. III. Cap. IV. p. 193.

† Medic. Observ. and Enq. Lond. Vol. III.

## CASES AND REMARKS

WHEN the venereal hernia hath arrived at the height of its inflammatory stage, I believe (with some few exceptions) the directions of Astruc may be considered as the standard of common practice.

AFTER having given the most excellent rules in every other respect, he advises the free use of a *warm* fomentation, composed of mallow-roots and linseed boiled in water; and the application of a poultice, made of the mucilaginous parts of vegetables and the oil of earth-worms.

THAT he had no particular success from this mode of treatment, appears evident from his own words\*.

It often happens, in the slighter kind of these cases, that the patient is obliged

\* Tumor inflammatorius testium, nunquam periculo vacat, cum febrem comitem habeat, ac in graves affectus, *abscessum, fistulam, &c.* testium, possit degenerare.

Superstitem duritiem dimissis, sensim tenuioribus partibus frequenter in scirrhum indurari, qui hydrocelen, pneumatocelen, sarcocelen, &c. *non raro* inducit. Astruc de Morb. Vener. Lib. III. Cap. IV. p. 194.

to walk about during the time of his illness, in which circumstance, after having the part suspended by a proper bandage, he is either directed to wear some discutient plaister, or to use such other applications as he can conveniently carry in his pocket.

WHEN the disease is so bad, as to render confinement necessary, I believe it is the general practice of many Surgeons, to direct the use of warm fomentations, of emollient and greasy cataplasms. When the greatest degree of benefit is expected to arise from these applications, they appear to me to be capable of doing the most mischief. At the time when the testicle is very much tumefied, the spermatic chord is extremely painful, indurated, and enlarged, quite up to the aperture of the tendon of the external oblique muscle of the abdomen; which (being inelastic, and therefore incapable of giving way to the swelling of the chord) presses upon it, and the testicle, as well as its appendages, are just in the same state with regard to the interception of the returning fluids, as the

strangulated intestine. Indeed, the swelling will be more likely to be increased by such pressure or resistance, because not only the spermatic vein and the lymphatics, but also the vas deferens, should return their different fluids through the opening of the tendon; and from hence, perhaps, may be deduced the reason, why, in these cases, the vas deferens and epididymis become so much enlarged.

BESIDES this kind of strangulation, which the inflamed spermatic chord suffers by the pressure of the tendon through which it passes, another kind of resistance may be supposed to arise from its particular structure; in which, so many different kinds of vessels are closely compacted in a fasciculus, by a particular provision of membranous fibres, almost surrounded by the cremaster muscle, and an aponeurosis from the abdominal tendons.

IF from these circumstances, a strangulation, or impediment to the return of the fluids from the testicle may be supposed  
to

to arise, every argument against the use of warm and emollient applications, will take place in the case of an hernia humoralis, which I produced, when treating of the strangulated bubonocoele. To prevent unnecessary repetitions, I beg leave to refer the reader to what hath been said upon that subject before.—When a person attempts to persuade others to adopt any alterations in practice, it will certainly be expected from him to produce better evidence in his favour than mere reasoning, however plausible it may appear.

WITHIN these last seven years, I have used cold, and sometimes restraining applications in cases of the hernia humoralis, and always with success: I have never seen any bad effects from their use; I have never known in any instance, a suppuration take place in this gland, from a venereal cause; and my patients are generally cured in less than half the time which the common method of treatment requires, especially where warm and emollient applications have been made use of.

DIFFERENT

DIFFERENT cases will require different remedies: I have sometimes used cold water with success, but when the integuments are inflamed and painful, the vegeto-mineral water of Goulard is as proper an application as any other, as it seems to possess a sedative, as well as a restringent and discutient quality. In proportion as the inflammation abates, the quantity of the extract of lead, as well as of the camphorated spirit, ought to be increased in the saturnine water. When the skin is not at all inflamed, the case will admit of stronger astringents, and sometimes stimulating applications will do great service.

I HAVE used the aqua vitriolica camphorata with these intentions, and have seen, frequently, a sudden diminution of the tumour, from the free use of a solution of crude sal ammoniac in vinegar, applied cold, and frequently renewed.—At the time, some one or other of these applications is used, as the circumstances of the case indicate; the general state of the patient must be attended to, and such evacuations

cutations made, as the Surgeon may think necessary.

A GENTLEMAN of rank having contracted a gonorrhœa in London, and being under a matrimonial contract, put himself under the care of an eminent Surgeon there, giving him a strict injunction to cure him with as much speed as possible.

CASE V.  
1773.

IN the course of a fortnight, by means of injections, all appearances of the disease were removed, and the Gentleman very joyfully set out upon a journey to Ireland.

BEFORE he had left London an hour, he perceived an uneasiness and weight in one of his testicles, and a pain soon afterwards extended to his groin.

THESE symptoms were probably aggravated by travelling, and increased so very rapidly, that when he arrived at this place, he found it impossible to proceed any farther.

HE

July 21. HE was feverish, the testicle was prodigiously enlarged, the skin of the scrotum had began to inflame; the spermatic chord was hard, painful, and swollen quite up to the tendinous aperture of the external oblique muscle of the abdomen. I took some blood from the arm, bathed the diseased testicle well with the saturnine water of Goulard, *cold*; and then suspended the part in a bag-truss. The patient was ordered to bed, and directed to lie with the thigh of the affected side bent, that the tendinous fibres which pressed upon the spermatic chord might be relaxed.

HIS bowels were opened by a solution of manna and Rochelle salt in water, and he was ordered a draught at night, containing thirty drops of thebaic tincture.

THE next day, he was in every respect much in the same state, only that he had more ease.

HE

HE was ordered to keep in an horizontal position, and the solution of Rochelle salt, &c. was repeated. The saturnine water was applied cold, as before, during the course of this day, and the compresses were frequently changed. The anodyne was repeated at night.

ON the third day the skin of the scrotum had resumed its natural colour, and the general swelling of the parts was diminished.—The same medicines and applications were continued as before.

ON the fourth day, the tumour was well bathed with a solution of crude sal ammoniac in vinegar, and linen rags wetted with it, were often applied to the parts, *cold*.

THIS method was pursued until the tenth day, when the swelling was almost reduced.—There remained at that time, some little induration of the epididymis, for which I advised the use of the emplastrum

plastrum è sapone cum mercurio \*; and as the patient's affairs required his presence in Ireland, he left this city on the eleventh day, believing himself cured.

MR. AIKEN, an ingenious Surgeon of Warrington, has recommended, in his Observations on the external use of the preparations of lead, the saturnine water applied cold in the hernia humoralis, and I flatter myself my readers will excuse me, if I transcribe the whole passage.

“ The swelled testicles,” says he, “ frequently accompanying a gonorrhœa, will very well illustrate the effects of emollient, saturnine, and common astringent and stimulating topics.—These usually come on very suddenly, increase to a large bulk, and are extremely painful and sensible to the touch. The present practice of applying an emollient poultice

\* R Cerat. Sapon.

Empl. Commun.

Argent. Viv. āā ℥iv.

Bals. Peruv. ℥ss. M. f. S. A. Emplastrum.

“ tice indiscriminately to every kind of in-  
 “ flammatory tumour, has given me, and,  
 “ I suppose, almost every Surgeon, fre-  
 “ quent opportunities of observing the  
 “ effects of these topics: and I will ven-  
 “ ture to appeal to the experience of any  
 “ practitioner, whether such a treatment  
 “ does not always prove extremely tedi-  
 “ ous, painful, and confining; and whe-  
 “ ther the cure is not generally incom-  
 “ plete, a considerable hardness of the  
 “ epididymis remaining, perhaps for  
 “ life.

“ SATURNINE applications have been  
 “ used in these cases with great success.

“ I HAVE seen the saturnine water,  
 “ made pretty strong, applied cold, and,  
 “ assisted by proper posture and bandage,  
 “ remove the tumour and pain in a short  
 “ time; and, duly continued, take away  
 “ all hardness.—Common astringent and  
 “ stimulant applications have also been re-  
 “ commended, and I once had a striking  
 “ instance of their efficacy.—A person  
 “ suddenly

“ suddenly attacked in the morning with  
 “ a swelled testicle, was obliged, on ac-  
 “ count of necessary business, to walk about  
 “ all that day. I applied a folded handker-  
 “ chief, well soaked with rum, to the  
 “ part, retained by another tied round his  
 “ body.—This was wetted twice or  
 “ thrice during the day, and at night I  
 “ found, notwithstanding his exercise, that  
 “ the bulk was greatly reduced, and the  
 “ sensibility diminished.—This applica-  
 “ tion, with the addition of vinegar, was  
 “ continued some time longer, and the  
 “ part perfectly recovered, without any  
 “ confinement to the patient.

“ I HAVE heard a justly celebrated pro-  
 “ fessor advise the emollient method in  
 “ these cases, and condemn the use  
 “ even of camphor, as too stimulating:  
 “ but such a case as this, and many similar  
 “ ones that are to be met with in practice,  
 “ would prove to me at least, a sufficient  
 “ assurance against any ill consequences  
 “ that might be apprehended theoretically  
 “ from the use of this class of topics in  
 “ inflam-

“ inflammatory tumours; and I am well  
 “ convinced, that emollients are peculiarly  
 “ ill calculated for the resolution of in-  
 “ flammations of lax glandular parts,  
 “ while medicines pretty strongly stimu-  
 “ lant, may be applied with great safety  
 “ and advantage.”

D AN

## AN ABSCESS OF THE TESTIS.

CASE VI. J. B——, servant to a gentleman, asked  
 June 9, 1778. my opinion concerning a complaint he  
 had in the scrotum.

ONE of his testicles was very much enlarged, indurated, and the spermatic chord was likewise diseased quite up to the opening of the external oblique muscle.

NO venereal symptom preceded the swelling, which had been a great while forming; and was, he said, the consequence of a bruise upon the part.

As he was in a few days obliged to go to London, I gave him only, at that time, some applications of the emplastrum à saponè cum mercurio, and suspended the scrotum in a bag-truss.

July 1. UPON his return from London, the complaint was much increased, the skin  
 of

of the scrotum was inflamed, and there was an evident fluctuation within.

I DIRECTED him, then, to use a fomentation and poultice, prepared with cicuta. In a few days a more complete supuration ensued, and the matter made its way out by two different orifices, which did not appear to communicate with each other.

THE discharge continued more or less several weeks; and, during that time, the applications were not altered. At length the drain totally ceased; and then the emplastrum è sapone cum mercurio was again applied, to dissolve the remaining hardness, which was effected in time, and the patient became well.

A CASE of a SCIRRHOUS TESTICLE of an uncommon size, combined with an HYDROCELE and an INTESTINAL HERNIA; cured by castration.

CASE VII. **W**—— **B**—— applied to me for advice, respecting a very large tumour he had in the scrotum. Sept. 8, 1778.

THE account he gave of his disease was: that sixteen years before I saw him, he had a rupture on the left side, which was so troublesome to him, that he was frequently obliged to exert very considerable efforts to return it; that he had procured a truss, which he believed had prevented the descent of the rupture; but that his testicle began to swell, that it had by degrees increased, and of late was become so inconvenient to him, that he would submit to any thing I would recommend, to obtain a cure.

THE tumour in the scrotum was very large; and, although there was a manifest fluctuation, and I was convinced there must be a considerable quantity of some fluid within the tunica vaginalis, yet, from the hardness and inequality of the surface, I was equally certain that the testicle itself was very materially diseased.

AT this time there was an intestinal hernia on the other side; the veins of the scrotum were very much enlarged, and varicous: and the patient had a pain in his back, which probably arose from the weight of the tumour.—The superior part of the spermatic chord was plainly to be distinguished, and appeared to be very little thickened.—With a view to ascertain, with as much precision as might be, the true state of the testicle, I passed a small trochar into the anterior and inferior part of the tumour, and drew off twenty ounces of bloody lymph.—The testicle appeared then to be extremely hard, unequal, and scirrhus. In consultation with Mr. Harrold, castration was proposed, and

the operation performed the ensuing day. The diseased testicle weighed more than two pounds.

BEFORE the operation the patient took a purge, which having emptied the bowels, he was ordered an anodyne draught; and this was repeated the first night.—The next day he was feverish, and vomited often; but these symptoms were removed by drinking water impregnated with fixed air, joined with small quantities of tinctura thebaica.

THE wound was treated according to the rules of surgery, and was entirely *healed in nine weeks.*

By some modern writers in surgery it hath been contended, that there are particular advantages to be derived from taking up the spermatic artery, without any other part of the chord. In every operation of the kind that I have yet seen, the *whole spermatic chord* was tied in the beginning of the operation; which  
manœuvre

manœuvre has seemed to me, in general, to lessen the <sup>consequent</sup> pain of the ~~consequent~~ parts of the dissection; and, by dividing the chord beneath the ligature, immediately after it hath been tied, the surgeon will more speedily, and with greater facility, disengage the testicle from the scrotum.

IN the case I have here related, I tied the spermatic chord in the beginning of the operation; from which process the patient declared he felt less pain, than when, afterward, the artery of the septum scroti was taken up by a tenaculum, and secured by ligature.

A TUMOUR upon the HEAD,  
under which there was a deficiency of  
the Cranium.

CASE XVIII. **I**N the year 1774 a boy, fourteen years  
of age, was brought to Mr. Harrold,  
with a tumour upon the head, situated  
about the middle of the sagittal future, and  
equal in size to an hen's egg.

THE account his father gave was: that  
his son had been violently stricken over the  
part affected, about two months before,  
with the handle of a broken chair, and  
that a swelling immediately ensued, which  
he every day hoped would disappear, from  
the use of such medicines as his neighbours  
had recommended to him. Being deceiv-  
ed in his expectations, he was obliged to  
have recourse to better assistance.

MR. HARROLD, upon examination of the  
case, judged the tumour to contain blood, and  
made a free incision thro' the integuments.

A

A large quantity of blood in a fluid state, not in the least grumous or discoloured, was immediately discharged; and a considerable hæmorrhage ensuing, he hastily dressed the wound with dry lint, &c.—Two days afterward he removed the external dressing; and, as he did not chuse to hazard a return of the hæmorrhage, he left some part of the lint, which adhered strongly to the parts. When this was removed at a subsequent dressing, a quantity of ichorous and putrid matter was discharged with it.

UPON inspecting the bottom of the cavity, Mr. Harrold was surprised to perceive the pulsation of the brain, and that there was a total deficiency of bone in all that part, corresponding with the basis of the tumour, the diameter of which was nearly two inches.—The surface of the dura mater granulated, and the wound was healed according to the rules of surgery.

The

The HISTORY of a FRACTURE and DEPRESSION of the SCULL, no symptoms of which appeared until the fourteenth day after the accident.

CASE IX.  
May 22, 1771.

A Chaise-driver at one of our inns, applied to me on account of a wound he had received in his forehead, and he particularly desired I would examine the state of his scull, which he was apprehensive was broken.—He informed me, that the day before I saw him, he was sitting before the body of his master's chaise, between Atherstone and Nuneaton, and stooping forward to adjust some part of the harness which had been disordered, he received a kick from one of the horses.

He perceived he was wounded, that he bled very much, and, to stop the hæmorrhage, he jumped off the carriage, and filled the wound with sand. When he arrived at Nuneaton he applied to a Surgeon, whom he likewise desired to examine the  
state

state of his scull.—The boy was very well when he came to me in every respect, except the wound in his forehead.

AFTER I had washed out the sand and dirt, I proceeded to examine the state of the subjacent parts.—The pericranium seemed bruised, but it was not *detached* from the bone. The patient came every day to my surgery to be dressed, and (against my directions) continued to look after horses, and drive chaises, as usual.

IN the space of fourteen days, the wound upon the upper part of the forehead was almost healed.—He then began to complain of a giddiness of the head; and, when this symptom commenced, he was ordered to lose some blood, and to be kept very quiet.—Notwithstanding the directions that were given upon this occasion, the vertigo increased, accompanied with a pain of the head; and to these symptoms supervened a defect of memory, and a general loss of strength.—It was now apparent there was some latent mischief; the wound  
was

was therefore inspected with particular attention. One part of it appeared more flabby than the rest, and, upon pressure, a small quantity of sanies was discharged.—I pushed a probe through the fungous part, and passing it upward under the scalp, discovered a roughness on the surface of the right parietal bone, near the sagittal suture, and more than three inches from the wound of the forehead.

HAVING made an incision through the scalp over this part, I discovered a fracture, attended with very considerable depression of the bone.—By two applications of the trephine, assisted by Mr. Simson, Surgeon of Glasgow, the whole of the depressed portion of the scull was removed.

THE symptoms did not in the least abate *immediately* after the operation: the pressure of the fractured os parietale upon the dura mater, having occasioned an inflammation of that membrane. The cause was removed, but the effects seemed to remain.—Although the patient was three times

bled within a small space of time after the operation, and, in other respects, a strict antiphlogistic plan was pursued, yet the disease of the dura mater went on from inflammation to mortification.—The patient was trepanned on the 7th of June, sixteen days after the accident happened; and, on the 15th, the dura mater sloughed off in a putrid state. The bad symptoms decreased after this event; but there was a troublesome fungus from the cortical substance of the brain, and a considerable portion of it came away in the subsequent dressings\*.

THE patient, after the febrile symptoms disappeared, became very languid; but, by a liberal use of the bark, he gradually recovered his strength, and, in despite of all remonstrances, began again to pursue his irregularities.—He was often drunk, ran about the streets, attended the business

\* Hildanus relates, that part of the substance of the brain protruded, in a person that he trepanned, to such a degree, that he was obliged, several times, to remove it by ligature.—The patient recovered. *Observat. Chirurg. Centur. IV. Obs. III. p. 287.*

of the stables, and, notwithstanding all he could do to prevent it, nature still prevailed, and healed his wound.

IN this case it appears very probable, that the wound of the forehead was occasioned by one part of the horse's shoe, and the fracture of the parietal bone by another.

THE present method of removing a large circular portion of the scalp, previous to the operation of the trepan, appears to me not only a very unnecessary, but a very inhuman practice.—It removes the seat of the hair, exposes a larger quantity of the surface of the bone than is necessary (rendering thereby an exfoliation almost unavoidable) considerably retards the cure of the wound, and when, at last, the parts are healed after this operation, they will experience the loss of that defence, which the thick skin and aponeurosis of the occipito-frontalis muscle, forming the scalp, would otherwise have yielded to them\*.

\* Nuda enim caro, si sine cute relinquatur, ægre ad cicatricem perducitur. Galen. Comment. III. in Hippocr. de fracturis charter. Tom. XII. p. 254.

IN several cases of fractured skulls that I have been concerned in, and in which it was necessary to apply the trephine more than once, the cure hath been accomplished without removing any portion of the scalp; and the wounds were healed in half the time that must have been employed, if excision had taken place.—In two of these cases the injury was in the forehead; by pursuing the above method, a very considerable deformity was avoided: and I have seen but one case, thus treated, where an exfoliation of the bone was necessary.

To make a proper dilatation of the wound for the admission of the trephine, I pursue the track of the fracture with the knife, in whatever direction it appears to take.

IF the circumstances of the case make it proper to expose a portion of the scull, in a form nearly circular, the old way of making two incisions, intersecting each other at right angles, and afterward dissecting back the flaps, will denude the subjacent bone

bone full as well, for every purpose of the operation, as if all that part of the integuments had been cut off\*.

IF it is not, therefore, absolutely necessary to remove any portion of the scalp, even when the scull is *extensively fractured*, how very irrational and cruel is the practice (which I have too often seen) of *scalping* the patient, even upon the *suspicion* of a fracture; protracting thereby the cure to three or four months, which otherwise might have been accomplished in almost as many days.

\* Quæ duabus transversis lineis litteræ X figuram accipit, ut deinde à singulis procedentibus angulis cutis subsecetur. Celsus de Medic. Lib. VIII. Cap. IV. p. 516.

A LACERATION of the RIGHT  
HEMISPHERE of the BRAIN,  
occasioned by external injury.

I WAS sent for, in the middle of the night, to — Hands, who, being much in liquor, had fallen from his horse, upon the road betwixt Warwick and this city.—I discovered that he had bled at the ears, was insensible and speechless.—As there were marks of contusion on the right side of the head, I made an incision through the scalp, but the pericranium was not *detached*, and the scull appeared sound.

CASE X.  
August 19,  
1772.

AFTER suffering the arteries that were divided to bleed about fourteen ounces, I dressed the wound, and left him until the morning, by which time I supposed those symptoms which arose from intoxication, would, of course, disappear. In the morning of the succeeding day he was in no respect better, but continued very comatose and feverish.

I THEN had recourse to evacuations, which, I flattered myself, would have given the absorbent system an opportunity to take up the fluids, which, I supposed had been extravasated under the scull.—A large quantity of blood was taken from the arm; leeches were applied to the temples; blisters to the legs, and behind the ears; stools were procured by clysters; and the evacuating plan was pursued on the two following days, without the least amendment.—On the fifth day the patient remained stupid, insensible, and speechless.

IT was now evident that evacuations, general and partial, had been made as far as prudence would allow; and, at this period, the surface of the scull having assumed a diseased aspect, in consultation with Mr. Harrold, it was agreed to perforate the bone.—When the circular portion of the scull was removed, there was no extravasated blood perceived betwixt it and the dura mater; but under that membrane some kind of fluid was evident to the touch.

THE dura mater was divided by a lancet, and about half a tea-cup-full of bloody lymph was immediately discharged.—The patient had no sort of relief from the operation: fresh blisters were applied; more blood was taken away; anodynes with sudorifics were administered, without the least good effect.—The day after the trephine was applied, Mr. William Sharp, of St. Bartholomew's-hospital, saw the patient; who thought that nothing had been left untried, which promised to be of any essential service in the case.—On the ninth day from the accident he died.

UPON dissection, no part of the scull appeared fractured; the pericranium and dura mater were, in every point, adherent to it.—Upon removing the arch of the bone, a large laceration was perceived to extend through the right hemisphere of the brain, beginning in the anterior, and terminating in the posterior lobe. It penetrated through the cortical, and part of the medullary substance of the brain, and communicated with the right lateral ventricle.

A CASE of the HYDROCEPHALUS INTERNUS, where mercury was administered without success.

CASE XI. **I** WAS desired to see Mary Sitherstone, an active lively girl, four years of age.—I found her very ill, complaining of great pain of the head, tossing it about from one side of the pillow to the other. Her cheeks were red, her pulse quick, and she had been four days costive. Her mother informed me, that eight days before I saw her daughter she was drowsy, and had a great desire to incline her head upon the table.—The second day of her illness, she complained of pain in the back part of her head, and desired her mother to hold and press it.—On the fifth day she was sick, brought up her breakfast, and could not bear the light.—On the succeeding day she was drowsy, vomited, and complained much of her head, but remained sensible.—The symptoms continued and increased until the eighth, when she was in the state above described.

DURING

DURING the whole progress of the disease, she could never bear a candle to be in the room at night, but screamed aloud to have it removed.

As she had been costive four days, the first necessary business seemed to be to empty the intestinal canal. With this view two clysters were injected, at proper intervals; but they both returned without producing the desired effect. An opening medicine was ordered, and blisters were applied betwixt the shoulders, and upon the arms.

THE disease increased, but she could speak, and was sensible.—Six grains of calomel were divided into as many doses, and they were all taken in the course of the day and the succeeding night; one drachm, likewise, of the stronger mercurial ointment was well rubbed into the legs. Dec. 15.

BEFORE the next morning there had been a considerable discharge of lymph and saliva from the mouth and nostrils, and her eyes watered much.

Dec. 16.

SHE was much worse: her hands were convulsed, and the muscles moving the globe of the eye so affected with spasms, that no part, except the white, could be seen for some hours.—Being out of town all this day, the mercurial course was intermitted.

— 17.

THE convulsions had ceased; she was, however, worse in all other respects: she lay still, was stupid, insensible, speechless, and incapable of deglutition. Her pulse was too quick to be counted with accuracy; the pupils of the eyes were widely dilated, and did not contract at the approach of the strongest light: the discharge from her mouth and nose had ceased.—As I could not, in the present situation, give her any more mercury by the mouth, I directed two drachms of mercurial ointment to be rubbed this day into the legs.

— 18.

I WAS surprised to find her alive. The symptoms were, in every respect, much the same as they had been the preceding day.

day. There was no discharge from the mouth; and two drachms more of the ointment were, in the evening, rubbed into the legs and thighs.

SHE was rather better, could swallow, Dec. 19. but there was no discharge from the salivary glands. She was at this time costive; and as the calomel had before opened her body, six grains of it were joined in a mixture \*, and the whole quantity was taken in the course of the day and the night ensuing.

SHE was no worse in any respect; she — 20. could swallow well, and discovered in her motions more signs of sensibility; but the eyes at this period were not affected by light, and the pupils remained widely dilated. In the afternoon her cheeks were very red, her pulse remarkably quick, and a profuse sweat broke out from every part

\* ℞ Calomel, gr. vi.

Syr. sambuci, ʒ vi.

Aq. puræ ʒ ii. M̄.

Capiat sextam partem, horis singulis tertiis.

of the body. The mixture, containing six grains of calomel, was repeated.

Dec. 21.

SHE was much worse in every respect; she had sweated profusely in the night, and her pulse was uncommonly quick and weak; the eye-lids were wide open, and the surface of the tunica conjunctiva dry and glassy. She swallowed nothing in the course of the day, and died in the evening. Leave could not be obtained to examine the head.

I TRIED mercury in this case, from the success which the ingenious Dr. Dobson of Liverpool had by the exhibition of this remedy, in one instance of the hydrocephalus internus.—Disagreeable as it must be to relate the inefficacy of a medicine that hath, even once only, succeeded in a disease before deemed incurable, and from which the medical world had conceived the highest expectations; yet having given it, in the above recited case, a fair trial, I thought it a duty incumbent on me to communicate to the public this instance of its want of success.

An

An ACCOUNT of the good Effects arising from a Scarification of the TUNICA CONJUNCTIVA, in a violent CHEMOSIS.

**T**HOMAS DAVIS, of Bedworth, CASE XII.  
Sep. 25, 1778.  
applied to me with a disease of the left eye, which had been of six weeks continuance.—The tunica conjunctiva of the eye-lids, as well as of the globe of the eye, was much inflamed, and so excessively thickened, that it projected very considerably beyond the surface of the cornea, and gave it the appearance of being sunk in the eye. In this state the tunica conjunctiva resembled a piece of raw liver.—The patient was almost deprived of sight, partly occasioned by a general cloudiness of the cornea, and on account of an opaque spot, which occupied that part of the surface of the eye opposite the pupil.

HE complained of a very excruciating pain from the diseased eye, shooting through  
through

through the temple to the back part of the head. He informed me that he had been repeatedly bled, and advised to apply blisters behind the neck and ears; from neither of which, nor indeed from any thing that had been attempted to relieve him, had he received the least benefit: on the contrary, it was much to be apprehended, that a total loss of the use of the organ of vision must have been the inevitable consequence.

I DIRECTED him to have six leeches applied in the circumference of the eye, as close to it as possible; and, on account of the extreme pain and irritability which attended, I gave him a pill every night, composed of two grains of extractum thebaicum, and the same quantity of calomel. He was directed to use a pediluvium every night, and to take, every third morning, an ounce of Rochelle salt dissolved in water. The diseased eye was fomented several times a day, with the saturnine water of Goulard.

THE tunica conjunctiva not being in Sept. 19. any degree unloaded, six leeches were again applied round the eye; and I intended to have opened the temporal artery, but its pulsation could not be discovered with sufficient precision, to give that operation any chance of succeeding. The other directions were observed as before.

THE acute pain in the head was diminished, but the state of the tunica conjunctiva was much the same as before.—Having fomented the eye and temples some time with warm milk and water, I inverted the lower lid, and with the point of a lancet made seven or eight scarifications into the tunica conjunctiva. I kept the cartilage some time inverted with my finger, to promote the evacuation; and by these means two or three tea-spoonfuls of blood were discharged: the warm fomentation was used again. The patient slept much better this night than usual; in the succeeding morning he could see objects more clearly than before, and the pain of the head was inconsiderable.

THE

Sept. 28. THE scarification was repeated with such advantage, that on the 30th the tunica conjunctiva appeared only of a pale red colour, its vessels having been emptied and contracted. The calomel pills were continued; in which the proportion of opium was reduced to half the usual quantity. The application to the eye was then the aqua vitriolica camphorata, and it was ordered to be used cold.

ON the 6th of October the patient could discern objects pretty distinctly; the spot upon the cornea was much reduced in dimensions, and the inflammation of the tunica conjunctiva *entirely* removed.

IN very bad inflammations of the eye, where that system of vessels which, in a state of health, circulate only the pellucid parts of the blood, are so much dilated as to admit the red globules (*errore loci*) if the disease hath been of long continuance, the vessels are so preternaturally distended, and their contractile power so much weakened, that it will be in vain to expect a  
cure

cure from any general evacuations.—In this state of the case, I have often seen the most beneficial effects from a scarification of the tunica conjunctiva of the inferior eye-lids, with a brush made of the ears of bearded wheat; by which the vessels of the part inflamed are divided, the stagnant blood is evacuated, and perhaps a salutary stimulus is communicated, by which the relaxed vessels contract to their proper dimensions. A very particular account of this operation, and a great number of cases, demonstrating its good effects in many diseases of the eye and its coats, are given by Duddell \*, in a treatise upon these subjects. The reason I used a lancet in the case I have just related was, because I had no brushes at that time, nor any proper materials for making them.—There is an objection to the use of the lancet: if the little wound of the divided vessels does not exactly correspond with that of the tunica conjunctiva, the blood may insinuate itself into the reticular mem-

\* Benedict Duddell, on the Diseases of the horny Coat of the Eye, &c.

brane,

brane, and spreading abroad under the skin, give it the appearance of a black eye. This remark may, perhaps, appear of very little importance; nor should I have mentioned it, if I had not experienced the inconvenience of such a circumstance.

A TUMOUR of the INFERIOR  
EYE-LID, cured by excision.

**I** DISSECTED a tumour from the lower CASE XIII.  
eye-lid, in a young man of this city: Jan. 4, 1775.  
it was about the size of a pigeon's egg.  
A transverse incision was made over the  
tumour, about an eighth of an inch be-  
low the edge of the eye-lid; and, in en-  
deavouring to separate the cyst from the  
skin, I wounded it, and found it full of  
hydatids. I cut away all the anterior part  
of the cyst, the rest sloughed off; and the  
wound soon healed, without leaving any  
deformity.

The

The HISTORY of an uncommon TUMOUR, which thrust the Globe of the right Eye entirely out of the Socket.

CASE XIV. **I**N the year 1774, M. Watts, aged thirty, interfering between two men who were fighting, had a blow from one of them, by which she was knocked down. About a week after this, she perceived a small swelling on the part where she received the blow. It was not very troublesome to her, and therefore she neglected it. As I was passing her house one day, she called me in to examine it.

I DISCOVERED a tumour, about the size of a hazel nut, upon the upper part of the nose, rather inclining to the right side. Its basis adhered to the os nasi, very near, and a little above that part, where the tendon of the orbicularis muscle is inserted, and it was so fixed, hard, and immovable, that I imagined it to have been an exostosis.

I ADVISED her to rub into the part, every night and morning, some mercurial ointment.—I believe it was three months after this time before I saw the poor woman again.—At this period, the tumour was much increased, extending its dimensions on every side, particularly toward the eye; and part of it having approached near the orbit, in such a degree as to press upon the sacculus lachrymalis, occasioned the tears to distil down the cheek. The most prominent part of the swelling was soft, but its circumference still retained a bony hardness. The patient began to have a dull pain in the part, which extended to the temple and right side of the forehead.

As the case appeared then very singular, I took every opportunity of shewing it to surgeons of my acquaintance. Although none of them could define the exact nature of the disease, they all agreed, that, from the apparent fluctuation in the most prominent part, there must be a fluid within. In a consultation, at which four surgeons were present, it was determined

that an incision should be made into the body of the tumour, to evacuate the fluid, and that if any thing further was done, the future processes of the operation should be regulated by circumstances as they arose. The necessity of some attempts to relieve the patient was urged, on account of the large size of the tumour, of the great disposition which it discovered to increase every day, and the probability there was that the globe of the eye would be injured, or entirely destroyed, by the further progress of the disease.

IN pursuance of this resolution, and in presence of the gentlemen who advised the measure, I made an incision through the integuments, the whole length of the tumour, and afterward divided a thick cartilaginous cyst, but, to our great surprise, not one drop of any fluid was evacuated, except such a quantity of blood as might be supposed to flow from the incisions: the cavity of the tumour seemed to be filled up with a fungus.

THE questions now were, Whether we should stop, or Whether we should proceed, and attempt the extirpation of the whole?—The great extent of the basis of the tumour, its firm adherence every where to the subjacent bones, and the incompressible hardness of its sides, were arguments against the *prudence* of the enterprise; the situation of part of the tumour within the orbit, and the probability that the bones of the nose, &c. partook of the mischief, in a situation too deep to be reached by any efforts of art, furnished presumptive proofs of the *impracticability* of the operation. The wound was therefore dressed up in the common manner, and it healed in a little time, without demonstrating the least appearance of any kind of malignity. The swelling kept on increasing as usual, extending lower down by the side of the nose, and the eye began to be pushed out of its socket.

IN this deplorable situation, I was very desirous that the poor woman might have the best advice possible, and therefore sent

her to London, recommended her to the care of Mr. William Sharp, and acquainted him by letter, that if he could give her the least encouragement, she would submit to any thing he advised, and stay in London as long as he thought proper.

MR. SHARP was so obliging as to procure for her the joint opinion of the surgeons of St. Bartholomew's-hospital. Those gentlemen, upon a consideration of the case, agreed that the extirpation of the tumour could not be undertaken with any prospect of success; and therefore nothing could be done but to palliate the symptoms. After staying some days in London, she returned to Coventry.

HER complaints then became every day gradually worse, and she had frequent returns of hæmorrhage from the nose, which reduced her strength so much, that her life was not apprehended to be of long continuance. By means, however, of the bark, a nourishing diet, the use of opiates (when her pain made them necessary) and  
the

the saturnine water of Goulard, applied cold to the tumour, she recovered her strength wonderfully, and the returns of hæmorrhage were much less frequent. In proportion to the increase of the tumour, and consequent distention of the parts, her pain augmented, and the use of opium in large doses, became more than ever necessary.

THREE months before her death, which happened two years after the commencement of the disease, the nostril of the affected side appeared to have been filled up with a hard substance, of the scirrhus polypous kind; and the other so compressed by its bulk, that the nose appeared strangely distorted, and there seemed to be no passage even for air, through the nostrils into the lungs.

AT this period, the globe of the right eye was *entirely thrust out of the socket*; and, notwithstanding the great elongation which the optic nerve must necessarily have sustained, before this wonderful change of

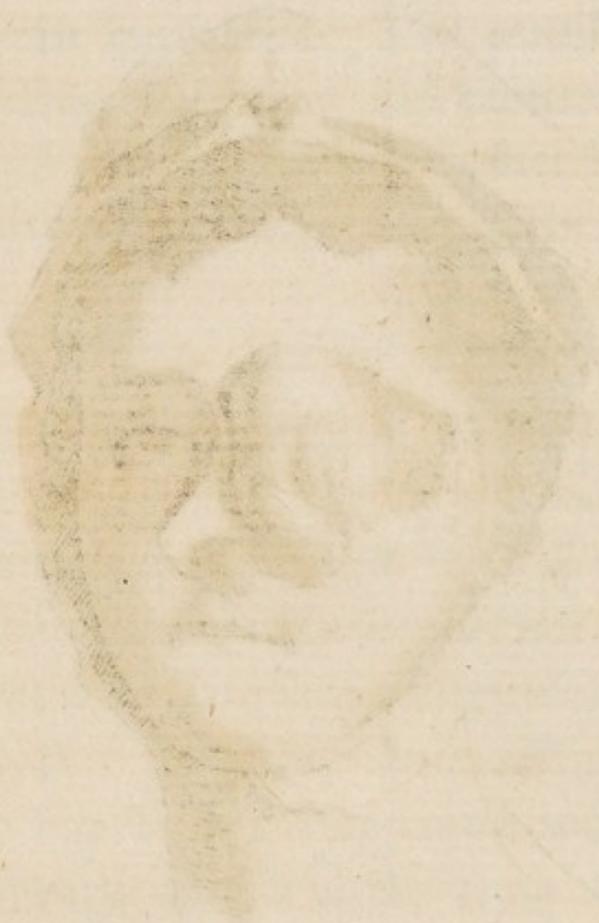
situation could have taken place, the poor woman could see to read a large print, when the other eye was covered. This can only be explained by the very gradual, and almost imperceptible manner, in which this event happened. The pupil was capable of free expansion and contraction, but the circle at all times was rather larger than it should have been in a natural state of the eye.

ABOUT a fortnight before she died, the polypous excrescence appeared externally through the right nostril, and from the separation of a slough about the center of the tumour, the same fungous appearance presented. No other circumstances of this extraordinary case happened worth relating, except that a little time before her decease, there was a considerable hæmorrhage from the nostril.—At length, worn out with pain, weakness, and fatigue, death put a welcome period to her sufferings. It is much to be lamented, that I could not procure permission to examine the state of the parts after her decease.

PL I



Roe se<sup>er</sup>



A CANCEROUS DISEASE of  
the MOUTH, successfully treated.

**M**R S. E——n, of Warwick, at the CASE XV.  
latter end of the year 1769 perceived  
a small swelling within her upper lip. Some  
little time after its first appearance it was  
attended with pains, shooting over the  
roof of the mouth toward the throat.  
The neighbouring parts became hard, her  
pains increased, the point first affected ul-  
cerated, and the disease spread toward the  
throat. At the expiration of two years,  
when all her complaints, instead of giving  
way to the methods that had been tried  
for her relief, appeared to be exasperated,  
she was supposed to be incurable by the  
gentlemen who had attended her.

IN this situation she came to Coventry,  
in June 1772. I found her then much  
emaciated, with an hectic fever; the dis-  
ease had spread into her throat; her up-  
per lip and gums were almost destroyed;  
and the parts around the sore were indu-

rated and tumefied. Her nights were passed without sleep, on account of the continual lancinating pain under which she laboured. Her appetite was gone, her pulse was quick, and she had for some time been weakened by excessive nocturnal sweats.

SHE was desired to confine herself as much as possible to a milk diet, joined with rice, and when thirsty, to drink the malt infusion. Three times every day she took an antiseptic draught \*. I desired her to take into her mouth often, half a large spoonful of a mixture of the expressed juices of the leaves of hemlock and the roots of carrot, in equal quantities; and every night, at bed-time, an anodyne pill † was administered.

\* R Infus. cort. Per. frigid. ℥ i.  
Tinct. cort. Hux. — ℥ ii.  
El. vit. acid. — gutt. xx.  
Syr. è cort. aur. ℥ i. M.

Fiat haustus.

† R Extr. cicutæ, gr. v.  
— Thebaic. gr. i:

M. f. pilula.

AFTER

AFTER pursuing this plan a fortnight, her acute pains were lessened, and the general aspect of the sore was clearly not worse than when we began, which afforded some kind of encouragement to proceed.

THE draught was continued twice a day July 26. only, the elixir vitrioli omitted, and half a grain of mercurius corrosivus sublimatus, dissolved in a small quantity of proof spirit, added to each. The anodyne pill was taken as before, and a quarter of a pint of a decoction \* ordered to be drank every night and morning.—Amendment was then visible every day: in less than a month the indurated sides of the sore softened; the cavity lessened; the pains were almost gone; the night sweats ceased; and her health in every respect was better.

HER mouth was at that time become sore, from the effects of the sublimate;

\* R Rad. sarsæ incif. ℥ ii.

Cort. Peruv. contus. ℥ i. coque simul in aquæ fontanæ ℥ iii. ad ℥ ii. cola & adde aq. cin. fort. ℥ ii.

but

but such evident advantages appeared to have arisen from it, that I did not chuse to incur any hazard of stopping the progress of a successful treatment, to avoid a merely local inconvenience. When there seemed to be any danger of salivation, it was prevented, by washing the mouth with the saturnine water of Goulard, and keeping her bowels open. The corrosive sublimate, therefore, and the other medicines were continued, until the cure was completed.

ON the 18th of September 1772, Mrs. E—— returned to Warwick, perfectly well; and although it is now more than six years since she was under my care, she has not experienced the least return of her complaint\*.

\* The late Mr. Gooch, in his last publication, hath given us an account of the good effects of sublimate in a cancerous case, nearly similar to the above. Med. and Chirurg. Observ. p. 145.

An ACCOUNT of the extirpation of  
a large TUMOUR of the Ranula  
kind.

**M**R S. W——d, of Warwick, applied CASE XVI,  
Sep. 16, 1772,  
to me for the relief of a large swell-  
ing under her chin.—It occupied all the  
space under the lower jaw, and its inferior  
point extended as low as the thyroid gland.  
It appeared very large likewise within the  
mouth, under the tongue, which was  
thrust against the roof of the mouth, and,  
by its pressure upon the epiglottis, made  
the action of breathing sometimes diffi-  
cult; during the time she slept, she was  
obliged to lie with her mouth quite open.  
—She was thirty-six years of age; and  
the swelling had been gradually forming  
ever since her infancy. At the age of six-  
teen it almost vanished, then increased  
again; and from that period to the time I  
saw her, it became continually larger, al-  
though its increase was slow, and almost  
imperceptible.—She had taken a great  
variety

variety of medicines, but without any advantage.

I INFORMED her she could have no chance of a cure without the assistance of the knife. She replied, that she came to Coventry to submit to any thing I should propose for her advantage.

Sept. 18. HAVING her head well secured betwixt the knees of a person sitting down, and, with the approbation of Mr. Harrold, I made two incisions through the integuments, whose points meeting each other at the superior and inferior parts of the tumour, described a figure nearly oval; and the skin was afterwards dissected on each side toward the basis. The cyst not being yet exposed, the incision was continued through the platysma myoides, and the mylo-hyoidei muscles. Upon dividing the cyst, which was extremely thick, about twelve ounces of curdled matter were discharged. I cut away all the anterior part of the cyst; and after taking up three arteries, which bled very freely, filled the  
cavity

cavity of the wound with dry lint.—After the operation, she was ordered to drink plentifully of diluent liquors, to gargle her mouth often in the day with a repellent cooling application, and at night to take an opiate.

THE parts were in great pain, tense, and hot; the membrane of the mouth was thickened, and there had been a large discharge of saliva.—Some blood was taken from the arm, a clyster ordered, the gargle was continued, and the opiate repeated at night. Sept. 19.

THE symptoms were much more favourable; she rested well, and the pain and heat of the parts were abated. — 20.

UPON removing the dressings, I discovered the muscles had contracted so much (the small opening which communicated with the remaining part of the cyst, being now contracted so much as scarcely to admit my finger through it) that I feared the aperture might be obliterated, — 22.

terated, before we could procure a destruction of the cyst. To prevent this effect, I introduced a bit of prepared sponge.

Sept. 23.

THE sponge having sufficiently dilated the aperture of the muscles, some of the causticum commune fortius was spread upon lint, and introduced upon the point of my finger, into contact with the cyst, where it was held for the space of half an hour, when I thought it probable that a sufficient slough might be produced.—In a few days the cyst began to loosen, and soon after digested off; new granulations arose; in six weeks the wound healed; and the patient returned home in perfect health.

The CURE of a RANULA, by  
incision and caustic.

I WAS consulted in the case of Miss CASE XVII.  
May 26, 1773.  
P——, of Wooton in the county of  
Warwick, who had a tumour of two  
year's continuance under the tongue. I  
hoped, after the containing fluid should  
be evacuated, and the sides of the cyst  
made to adhere, that a cure might be  
obtained.

For this purpose I passed a large crook-  
ed needle, armed with a strong ligature,  
within the mouth, from one side of the basis  
of the tumour to the other. About two large  
spoonfuls of a fluid, in consistence like the  
white of an egg, were discharged; and  
the ends of the thread were left to hang  
out of the patient's mouth, that they  
might be drawn from side to side every  
day.

As soon as the discharge of the viscid  
fluid ceased, the seton was withdrawn,  
5. and

and in a little time she appeared well.—  
 In less than a month's time the swelling  
 became as large as ever. I then cut away  
 a circular portion of the membrane of the  
 mouth, and on the succeeding day applied  
 the caustic, in the same manner as hath  
 been related in the preceding case. The  
 cyst was in this manner effectually destroy-  
 ed; and the patient afterward continued  
 free from any return of her complaint\*.

To

\* The cure of the ranula can never be obtained by simply opening the tumour.

Stalpart. Vander-Wiel relates a case, where a ranula had been opened three times without success; and at last the cure was obtained by corrosive applications. Tom. I. Vide Schenkus, Obs. 388. lib. 10.

Paré recommends the actual cautery. Lib. VII. Chap. V.

In a case of this kind, Tulpus observes that the cure was obtained by hot iron. Observ. Med. Lib. I. Cap. 52. p. 103.

Barbette, after incision, employed an escharotic powder. Anatom. pag. 115.

Rofius advises that, after having opened the tumour with a scalpel, it should be dressed with lint, saturated with alum water. Observ. Chirurg. p. 143.

Van Swieten relates a case of a large ranula cured by incision, and the use of an astringent fomentation. Comment. in Aphor. Boerh. §. 796.

Marchettis

TO DR. A S H.

SIR,

“THE following case of the scarlet  
“fever \* (the present epidemic of  
“this county) having been attended with  
“very singular circumstances, I flatter  
“myself a short history of it will not be  
“displeasing to you. I am, &c.”

Marchettis recommends the juice of the *chelidonium majus vulgare*, to destroy the cyst. Velchius advises the same application. *Observ. Medic. Epif. 26. p. 17.*

M. de la Faye describes the case of a ranula so large, that it prevented the patient from opening the mouth, or speaking: it was cured by incision and caustic.

Dionis observes, that the simple opening of the tumour will not affect a cure: therefore he advises the part to be dressed, after incision, with the vitriolic acid and *mel rosarum*.

M. Louis declares that he hath opened many of these tumours by incision, and they have been reproduced in a short space of time. He contends that the ranula is occasioned by a dilatation of the sublingual salivary gland, in consequence of a disease or obliteration of the excretory duct: and therefore the disease cannot properly be called an encysted tumour. *Vid. l'Encyclopédie, article Grenouillette.*

\* *Febris anginosa.* Huxham. *Scarlatina anginosa.* Sauvage. *Scarlatina.* Plenciz.

CASE XVIII. **O**N the 14th of October last Elizabeth Green, a healthy young woman, of Stoke in this neighbourhood, was seized with a shivering fit, which was soon succeeded by heat, thirst, and other febrile symptoms. The next day her mouth and throat were so painful, that she swallowed with the utmost difficulty. On the third day a scarlet rash made its appearance on her arms, neck, and other parts. These symptoms continued until the fifth day, when she became delirious; and having been for some hours incapable of swallowing liquids, or of breathing without great difficulty, by a violent exertion of coughing and retching she brought up some bloody matter, and a great quantity of membranous sloughs. After this discharge she could swallow much better, and with less pain; but the fever and its symptoms continued until the fourteenth day, when I was first desired to visit her.

I FOUND her extremely ill: her pulse was quick and weak; her skin hot and dry; and the  
the

the epidermis universally peeling off in scales. Her throat was, she said, better; but I had no opportunity of examining the state of it, the muscles of the lower jaw being so rigid, that she could only open her mouth to admit the extremity of a tea-spoon. She complained of much pain on the left side of the neck, where, upon examination, was discovered a very perceptible induration. I thought there might be some chance of a suppuration taking place in this part, which might prove serviceable to the case, and therefore directed an emollient cataplasm, to which was added a proportion of flour of mustard, sufficient to communicate a heat to the skin. Every fourth hour she was ordered to take two ounces of decoction of bark, mixed with half a drachm of the cordial confection.

THE next day (the fifteenth) I was hastily sent for, her friends supposing she was dying. She had fainted; and, when I saw her, all the muscles of the right arm and leg were violently convulsed. She continued in this state two hours, and then

the spasm ceased. I made no other alteration in the treatment, than adding five grains of camphor to each dose of cordial mixture. In the night the convulsions returned, attended with a rattling in the throat. After the paroxysm left her, she lay some time in a state, in which her friends again supposed she had but a short time to live: she recovered, however, a little, and desired to drink some cold water.

ON the sixteenth the convulsions returned three or four times, with equal violence; and in the intervals she complained of great pains of the neck. Her cordial medicine with wine was persisted in, and the stimulating cataplasm continued.

ON the seventeenth day I perceived an obscure fluctuation in the side of the neck; and apprehending that an external opening for the matter would afford the best chance of recovery, I made an incision, three parts of an inch in length, through the integuments, under the angle of the jaw, and  
near

near the anterior edge of the sterno-mastoideus muscle; then pushing the knife on, about two ounces of very offensive matter were discharged. The drain continued large for several days; but, after the operation, she never had the *least return* of convulsions, the febrile symptoms gradually abated, and every appearance of danger is now entirely gone; a great degree of weakness only remaining, which will probably require a considerable length of time to remove.

Coventry,  
Nov. 16, 1778.

The

The HISTORY of a fatal DISEASE  
of the OESOPHAGUS, occasioned  
by an accident.

CASE XIX. **I**N the month of January, 1776, one  
Thurston, a barber, having a dispute  
with a man, received an injury in his  
throat, by a rough stick being, with vio-  
lence, pushed down it. Some blood was  
discharged; and the next day, finding his  
throat sore, he called upon me. I was not  
at home, and he neglected to procure any  
assistance until a month had passed, when  
I was desired to visit him.

HE complained then of a most violent  
pain in the side of the neck, could swal-  
low nothing but fluids, and those with  
the utmost difficulty.—I had not an op-  
portunity of examining the throat, as the  
pain and rigidity of the muscles prevented  
him from moving the lower jaw.

I TREATED the complaint at first as an  
inflammatory quinsy, by bleeding, clyf-  
ters,

ters, antiphlogistic gargles, and blisters.—  
 On the fourth day from the time I first saw  
 him, after a very restless night, he brought  
 up suddenly a large quantity of purulent and  
 very offensive matter. The symptoms  
 were, in consequence of this, in some mea-  
 sure abated, and I had hopes that the sup-  
 puration would have proved the crisis of  
 the disease; but in this expectation I was  
 disappointed: the quantity of matter, in-  
 stead of lessening, continually increased.  
 On some days, indeed, it appeared very  
 small, then it used suddenly to increase;  
 probably occasioned by a lodgement in  
 some part of the œsophagus, or from the  
 matter finding its way into the stomach,  
 from whence it was, every third or fourth  
 day, discharged by vomiting.

As there was then much reason to  
 fear the patient would sink under such a  
 long continued discharge of matter, or suf-  
 fer from its absorption into the system,  
 every method was taken to prevent, as  
 much as possible, these effects. The bark  
 was very liberally administered; the parts

were constantly washed with an antiseptic gargle; a milk and vegetable diet was enjoined; and a constant circulation of fresh air was procured through the chamber, but to no good purpose: the patient became weaker; the hectic symptoms advanced; and the discharge of matter was every day augmented.

IN the beginning of March (three months from the time the injury was received) I observed a blush of inflammation on the side of the neck, against which the patient described the stick to have been pushed; and hoping that we might prevent the matter from draining into the stomach by an external opening, I ordered an emollient poultice to the part, which was continued eight days. I then directed another cataplasm, composed of the farina of linseed and water, to which a small quantity of the powder of mustard was added. This application occasioned pain; in a little time a tumour was formed, and, as soon as a fluctuation was evident, I opened it by caustic, and let out about  
four

four ounces of matter, the most putrid I ever remember to have seen. When the eschar separated, the fat of the cellular membrane appeared to have been entirely melted away; the carotid artery was exposed; and the muscles were as clean as if they had been dissected. The external opening appeared to communicate with the internal ulcer, as some parts of the food were now and then discharged through it.

THE patient was ordered to lie upon the side affected, that the matter might have a more depending drain; the anti-septic plan was strictly continued, and every precaution taken that might afford a chance of recovery. But the matter became more acrimonious, and increased in quantity; his strength lessened; a diarrhoea came on; and in June (six months from the date of his complaint) he died, emaciated to the greatest degree.

An ACCOUNT of a wound of the TRACHEA, which proved mortal from an uncommon cause.

CASE XX. **O**N the 4th of March, 1774, a young woman of this city, in a fit of despondency, cut her throat. Soon after she was discovered, I saw her.—She had divided, with a penknife, the whole annular substance of the trachea, just beneath the thyroid cartilage; had lost a great quantity of blood, and was incapable of speaking.—By two stitches of the interrupted suture, assisted by slips of sticking-plaster, I brought the sides of the wound of the *integuments* into contact.

THE next day the patient was in a promising way, and was capable of speaking.—On the third day she had a violent cough; and, upon removing the dressings, the greatest part of the air, in the act of expiration, seemed to escape through the wound, with an uncommon noise.—With a view to moderate the cough, she was  
 ordered

ordered an anodyne linctus, and a large blister was applied to the back. She was directed to abstain from every thing acrimonious or heating; nourishment was always given her in a liquid form; and, to promote a regular discharge from the intestinal canal, a clyster was administered every evening.

By degrees the cough abated, and every day there seemed to be more reason to entertain hopes of a favourable termination of the case. At the expiration of three weeks she was capable of sitting up; the wound was very much diminished in size, and the mucous discharge lessened at every dressing. In the fourth week the wound was nearly healed, when the patient was seized with a difficulty of breathing, accompanied with a sense of suffocation; and, after a continuance and increase of these symptoms during the space of twenty-four hours, she died.

I DISSECTED the parts the day after her decease, assisted by Mr. Harrold.—The external

external wound had been contracted so much, that there was then only room to introduce a probe, which passed very freely into the trachea downward. The cicatrix adhered very firmly to the *inferior* part of the divided trachea, but the superior portion had retracted half an inch, and its cavity was so much filled up by *granulations of flesh*, that there did not appear room for a sufficient quantity of air to pass through it to dilate the lungs; and when the external wound became so small that the lungs could not be supplied with air from that source, a difficulty of breathing commenced, and at length the patient was suffocated, by the very efforts which nature made to heal the divided parts.

SOME time before this case occurred, Mr. Harrold did me the favour to desire I would see a patient of his, who had cut into the cavity of the trachea, betwixt the cricoid and thyroid cartilages.—In this case the *integuments only* had been united by ligature, and the patient, in every respect, seemed to be in a situation as remote

mote from danger as could be imagined: nevertheless, in the fifth night he suddenly died.

I ATTENDED the examination of the body; and the immediate cause of death, in this instance, appeared to us to have been occasioned by the rupture of a small artery, the blood from which not having a ready external passage, had found its way into the trachea, and there formed a coagulum, which plugged up the cavity of the windpipe, and suffocated the patient, by preventing the access of air to the lungs. When we took out the coagulated blood, it appeared to have branched out into the ramifications of the *aspera arteria*.

*aspera*

QUERY. Would the sewing up the windpipe, and leaving the external wound open, in *both* or *either* of these cases, have afforded a better chance of recovery?

A very singular affection of the OESOPHAGUS, which occasioned the death of the patient.

THE œsophagus (whose sound state is of the utmost consequence to the animal machine) is subject to many and very dangerous diseases. Amongst the causes that have occasioned a difficult deglutition, have been mentioned spasms\*; ulcers; a scirrhus induration of the coats of the œsophagus †, or of the numerous lymphatic glands ‖ nearly in contact with it; and sacculi, or preternatural pouches §.

\* An account of a case of this kind, cured by antispasmodics, is related by Dr. Percival. *Med. Transact.* Vol. II. p. 90.

† The œsophagus in a person was found cartilaginous throughout its whole extent, and so much contracted, that a hog's bristle could scarcely be transmitted. *Mem. de l'Acad. Royal. de Chirurg.* Tom. I. p. 489.

‖ Tulpius has related a case where the œsophagus was rendered impervious, by a scirrhus tumour situated betwixt the trachea and œsophagus, which proved fatal. *Observ. Medic.* Lib. I. Cap. XLIV. p. 83.

§ A remarkable instance of this kind is recorded by Mr. Ludlow of Bristol. *Medical Observations and Enquiries*, Vol. III. p. 85.

EVERY degree of difficulty of swallowing may be supposed, likewise, to arise from a paralytic state of the œsophagus \*, considered as a muscle; and the daily and constant action it must necessarily undergo

\* Tulpus describes a case, where, from a paralytic state of the muscles subservient to deglutition, the patient died on the seventh day. *Observ. Medic. Lib. I. Cap. 42. p. 79.*

Jacotius observes that he hath seen this disease, and that the patient generally dies: but Stalpart. Vander-Wiel hath given the history of a case, where a young woman was reduced almost to a skeleton, from a difficulty of swallowing.—A whale-bone was introduced, and no stricture found: whence the physician concluded the case was paralytic. During the space of a whole year the food, after being masticated, was pushed into the stomach by a probang, with a sponge fixed to its extremity. At length the patient wonderfully recovered. *Observat. Tom. II. Obs. 27. p. 287.*

Willis likewise describes a paralytic case, almost similar to the last; wherein the muscular fibres of the œsophagus having lost their tonic power, the food was daily forced into the stomach, during the space of sixteen years, by the whalebone. *Pharmaceut. Ration. Sect. II. Cap. I. p. 45.*

Galen probably alludes to this disease of the œsophagus, when he says, “ Si ingestorum in transitu tarditas æqualis & sine dolore accidere consuevit, & in supino decubitu augetur, erecta vero cervice mitigatur, circa ullum angustię sensum.” *De locis affectis, Lib. V. Cap. 5. Chart. Tom. VII. p. 491.*

for the purposes of life, must necessarily expose it to an infinity of mischief, resulting from the retention of extraneous and adventitious substances. The most dangerous, and perhaps not the most infrequent cause of a chronic difficulty of swallowing, originates from a thickening and gradual contraction of the coats of the gullet; and which regularly, and by slow degrees, increases, until the canal is rendered totally impervious, and the miserable patient is literally starved to death.

WHETHER this particular disease of the œsophagus is truly scirrhus, is of a scrophulous nature, or whether it is independent of both, hath not yet been sufficiently ascertained. Certain it is, that this complaint is sometimes complicated with swollen lymphatic glands; and mercury, which from all experience hath been found to exasperate a true scirrhus, is the only remedy which, in the case before us, hath hitherto been known to have produced a cure.

VAN SWIETEN \*, who has described this disease with his usual accuracy, is inclined to think, that the pernicious custom of drinking tea or coffee almost scalding hot, may be the cause of it, by coagulating the fluids, and shrinking up the solids. This opinion is probably true, because women are almost the only subjects of the disease. Indeed, in all the cases of the kind that I have seen or heard of, the patients were of that sex.

DR. MUNCKLEY † has given a history of the cure of this disease by mercury || : in a very candid manner he informs us, that success can only be expected to attend its administration under certain circumstances and periods of the disease; and that, when no nutriment can be conveyed into the stomach, and the constitution is much impaired from the want of sustenance, &c. the patient is equally unable to bear either the remedy or the disease.

\* Comment. in Aphor. Boerh. § 797.

† Med. Transact. Vol. I. p. 165.

|| Ruysch first gave an account of the utility of mercury in these kinds of difficult deglutition. Advers. Anat. Med. Chirurg. Dec. 1. Obs. 10.

This observation of Dr. Munckley is most certainly true.

CASE XXI. A LADY in the neighbourhood of this city had a difficulty of swallowing, gradually increasing during four years; and, when I was consulted in her case, it was with the utmost difficulty, and with great pain, that she could get into her stomach a tea-spoonful of water.

Two drachms of the strong mercurial ointment were in this case rubbed into the patient's legs, every night, until a moderate spitting was occasioned. At proper intervals the process was repeated, until eight ounces of the ointment had been applied. No kind of benefit, however, arose from its use: but, on the contrary, the difficulty of deglutition increased every day until her death, which happened three months after she began the mercurial course\*. From a mistaken delicacy of her friends, I was prevented from examining the state of the œsophagus after her decease.

\* Van Swieten observes that, among other things, he has tried the effects of mercury in this disease, and has seen a salivation brought on without any kind of benefit. Comment. in Aphor. Boerh. § 797.

AMONGST the various diseases to which the œsophagus is subject, the following is so extremely singular, that the communication of it must be pleasing to the medical reader, although it may, perhaps, afford him no material practical information.

**M**R S. W—, of this place, of a thin CASE XXII. and relaxed habit of body, during the last ten years of her life experienced great difficulty in swallowing solid food; and very frequently the smallest portion of any thing, she was eating, would stick in the passage, until it was dislodged by puking, and by violent exertions of the diaphragm and abdominal muscles.

ABOUT two years after she was affected with this disorder, finding that her complaints became very troublesome, she consulted a physician, who prescribed an internal medicine, which was a preparation of mercury. She had no relief from it; and perhaps the reason might have been, that she had not resolution sufficient to

persist in its use, until it was probable that any material benefit could have arisen from it.

IN the month of September 1774, she was unable to swallow the least portion of any solid substance whatever; and some time afterward she was incapable of getting into her stomach any kind of fluids. During the whole continuance of her illness, she had no fixed pain in her throat, and, although the pharynx was frequently inspected, it exhibited no other marks of particular disease, but that it appeared more pale than usual.

SHE complained of a troublesome and very disagreeable dryness of her throat; to relieve which, an emollient gargle was sent her: but, upon making the experiment, she discovered she had not the least power to use it. She had very frequent and troublesome retchings, which appeared to have been occasioned by wind; and although no fluids could at this period find their way from the mouth, through the œsophagus,

œsophagus, into the stomach, yet the contents of the stomach were discharged by vomiting, with apparent ease.

FROM the time she was incapable of swallowing liquids until a week before her death (an interval of six weeks) the *vis vitæ* was so well supported by mutton broth, frequently injected into the intestines, that she could walk about her apartment, and had regular stools of a solid consistence. Nothing like matter was, during the progress of the disease, discharged from her mouth; nor was there ever observed the least offensive smell in her breath. About the time she was incapable of swallowing solids, the case appeared so much to resemble those described by Dr. Munckley, that it was determined to give the remedy he recommends a fair trial.

WITH this view, a proper quantity of mercurial ointment was rubbed upon the legs several weeks, without the least advantage. No method which could be  
H 3 thought

thought of, appeared in the least to retard the progress of this extraordinary disease; on the 20th of March, 1775, she died.

AFTER her decease, I examined the parts with a very eminent surgeon.—The thyroid gland was enlarged, but it did not appear to have made any pressure upon the œsophagus. We discovered that the whole annular substance of the superior part of the œsophagus was converted into a tough viscid mass, of a dark brown colour. The length of that part of the tube thus diseased, was at least three inches. The structure of the coats of this part of the œsophagus, as well as of the corresponding portion of the longi colli muscles, was so entirely destroyed, that nothing appeared to be betwixt the bodies of the vertebræ cervicis and the trachea, but the rotten substance just described. That part of the œsophagus below the seat of the disease was perfectly sound, nor was there any particular stricture at the inferior point, where the mischief seemed to terminate. The superior line near the pharynx, had  
much

much the appearance of the edge of a malignant ulcer, except that it appeared to have been corroded only, without any induration of the parts.

THE circumstance of the patient being unable to swallow liquids, at the time the contents of the stomach were freely discharged through the œsophagus, will not appear surprising, when we consider, that a very essential part of the office of deglutition, is carried on by the successive contractions of the orbicular fibres of the muscular coat of the œsophagus, which were totally destroyed in this case\*.

IN the action of vomiting, the contents of the stomach are forcibly expelled through the mouth, by the violent spasmodic contractions of the diaphragm and abdominal muscles; and in this operation the œsophagus seems to be *passive* only.

\* *Aliæ vero interiores, circulares, etiam valentes fibræ, similiter à cricoide principio sumto, successivo motu contractæ cibum depellunt, &c. Alb. Haller. Primæ Lineæ Physiol. Cap. 23. p. 399.*

An ACCOUNT of a LOCKED JAW  
and OPISTHOTONOS, cured by  
opiate clysters.

CASE XXIII,  
Oct. 10, 1773.

A Poor woman in the workhouse in this city, who some time before had been subject to paralytic complaints, suddenly fell down in a kind of convulsive fit, and when she was taken up, could neither speak nor swallow.

— II.

WHEN I saw her, the lower jaw was quite locked; the muscles which move it upward were rigid; the temporal and masseters were as hard as a board; the head was drawn backward, and the muscles of the spine were in so contracted a state, that it was impossible to bend the back in the least degree forward.

SHE had lost two teeth from the upper jaw; and through this aperture I poured into her mouth a spoonful of water; but when it came into her throat she seemed in danger of suffocation, until a strong convulsive

vulsive motion of the thorax had forced it back again. The poor woman was all the time sensible, without the power of speaking, and made signs, in a very miserable way, for every thing she wanted.

As it did not appear to me, that she could swallow one drop of any kind of fluids, I thought the best, indeed the only way of relieving her, must be by giving medicines as well as nutriment in clysters. I accordingly ordered eight ounces of mutton broth to be injected three times a day, and every eight hours a clyster, consisting of six ounces of water, and two drachms of tinct. thebaic. She remained four days in the same state, in which time she did not swallow any thing. The quantity of tinct. thebaic. was increased in the clysters, and the rigid muscles of the face were well rubbed with camphorated oil.

ON the fifth day she could speak, and open her mouth a little. On the seventh she could swallow liquids. She was then directed to take two drachms of laudanum  
three

three times a day, by the mouth. She every day became better, and in a short time was almost as well as usual; but it was six weeks before the muscles of the neck and back had recovered their proper flexibility.

As it did not appear to me that she could swallow one drop of any kind of fluids, I thought the best, indeed the only way of relieving her, must be by giving medicines as well as nutriment in clysters. I accordingly ordered eight ounces of tart-iron broth to be injected three times a day, and every eight hours a clyster, consisting of six ounces of water, and two drachms of tinct. thebaic. she remained four days in the same state, in which time she did not swallow any thing. The quantity of tinct. thebaic. was increased in the clysters, and the rigid muscles of the face were well rubbed with camphorated oil.

On the fifth day she could speak, and open her mouth a little. On the seventh she could swallow fluids. She was then directed to take two drachms of Nutrients three

<sup>A</sup>  
A ~~P~~ERONYCHIA, attended with  
uncommon symptoms.

JOHN PEG, of this place, in the CASE XXIV,  
middle of June 1775, very slightly  
scratched the inside of his right thumb.  
Previous to this accident, he was healthy  
in every respect. Finding the next day  
that his thumb was swollen, he applied to  
a surgeon for relief. His case became  
every day worse; and on June 26, ten  
days from the commencement of the com-  
plaint, I was desired to see him.

THE thumb was then excessively en-  
larged, and the fore-arm swollen to the  
elbow joint, from whence a red streak ex-  
tended along the course of the lymphatics,  
into the axilla. On account of the extreme  
pain of the parts, he had slept little for se-  
veral nights; he was hot, and his pulse  
beat 110 strokes in a minute. I made  
an incision in the middle of the inside of  
the thumb, extending the whole length  
of it. The flexor tendons were very sloughy,  
and

and matter was confined all round the bones. I dressed the wound with the ceratum saturni, and covered the whole arm with linen rags, moistened with oleum and acet. litharg. āā. p. e. and ordered him to take an ounce of sal Glauberi dissolved in water.

June 27.

HE passed a good night, had been refreshed with sleep, and was much easier. All the circumstances of the case were promising; there was then a free discharge of matter; the tendon appeared more sloughy; the swelling was reduced; and the red streak entirely gone. He was dressed exactly as before. About half an hour after this, he cried out with the violent pain of his thumb, which gradually extended up the inside of the arm in the course of the vessels, and crept into the axilla. Soon after he complained of his heart, and was seized with such an oppressive difficulty of breathing, that the people about him thought he was dying.

AT

AT this time I was in the country, and could not see him till three o'clock in the afternoon. In the space of five hours, in which I was absent, he had eight convulsive fits, and the spasms of the muscles were so violent, that several men could not, without difficulty, confine him in bed. His pulse was very low, his countenance pale; the fore-arm was again swollen, and hot; and, upon the whole, it was evident that an uncommon irritation of the thumb was the cause of these dangerous symptoms.

I REMOVED the dressings from the wound, and applied to it a pledget of lint, imbued with the balsamum Peruvianum, and gave him internally thirty drops of the same balsam upon a lump of sugar, which was likewise ordered to be repeated every hour. Six leeches were directed to be applied to the inside of the arm, near the wrist. In the evening he was rather better; had but one violent paroxysm since I saw him last; but, as he was then hot, I took from the other arm twelve ounces of  
of

of blood. The use of the balsam was continued through the night.

June 28.

HE had a bad night, the convulsive paroxysms continuing, although not so violent as before. He had a dismal countenance, the muscles of the lips and cheeks being often distorted. The discharge from the thumb was large. It was dressed as before with the balsam, and the internal use of it continued through the day. His pulse was very low, and he had frequent returns of the difficult respiration; in the evening an intense pain of the thumb extended up his arm. Cloths wet with the saturnine water of Goulard, were applied *cold* to the wrist and fore-arm, and sixty drops of thebaic tincture were given in wine and water, and repeated every third hour of the night. He dosed much; and when he awaked had returns of the spasms, but they were less violent.

— 29.

HE was remarkably low this morning; his pulse had ninety strokes in a minute; the convulsions had ceased some hours; and

and the fore-arm was neither swollen nor painful; he bore it to be pressed hard without complaining; but his head ached, which was attributed to the large quantity of laudanum (℥β) which he had taken since the last evening. The fore was uncommonly irritable, the least touch with soft lint communicated, he said, a sting to his heart. The same dressings were continued, and sixty drops of thebaic tincture, with the same quantity of Peruvian balsam, were ordered to be taken every six hours, alternately, through the day.

WITHIN the space of half an hour after his thumb was dressed last, he had three violent convulsive paroxysms, which left him very weak. Before the accession of the fits, his thumb was always particularly painful. Being at this period costive, a clyster was ordered. The bals. Peruv. having heated and disagreed with his stomach, was then discontinued, and eighty drops of thebaic tincture were administered every four hours.

June 30.

HE

July 1. HE was considerably better, and passed the night without any return of convulsion. The swelling of the hand was entirely removed, nor had he the least pain there. The fore digested well, but was still remarkably irritable: the matter, therefore, was not wiped off, but the balsam applied as before. As he continued still costive, he was ordered to drink a draught of a solution of sal Glauberi every four hours. After stools were procured, the laudanum was repeated as before.

2. HE began to recover his natural complexion; the anxiety about his heart, he said, was entirely gone; his pulse beat a hundred strokes in a minute; he had no convulsions, except some very slight and frequent twitchings of the muscles. In the course of dressing this morning, having accidentally touched his thumb too hard, he fainted from the violence of the pain. He was directed to take eighty drops of laudanum, as before, every six hours.

AFTER

AFTER the last dressing he had several convulsions, but continued free from them all the night, and slept well; his pulse was at eighty; he had two stools; and, upon the whole, was much better. The fore discharged largely, yet still remained very painful: the tinct. theb. was continued as before.

July 3.

THE convulsions returned twice: the thebaic tincture was ordered to be taken in the usual dose. From this time he was free from all spasmodic symptoms, and the wound became less painful every day, until it was healed. The use of the laudanum was left off by degrees.

— 4.

A DISEASE of the STOMACH, which occasioned death, by a scirrhus induration near the pylorus.

CASE XXV. **I**N June 1774, I was consulted in the case of J. Phillips, of this city, aged thirty-five. During the space of a year before he applied to me, he experienced many complaints, the seat of all which, he said, was in his stomach. He had suffered a great degree of pain, which was always aggravated by eating, and it generally continued until, by vomiting, the stomach had discharged the load. His appetite was as good as usual; but, for the last month before I saw him, he could never keep any thing upon his stomach longer than half an hour. He was extremely reduced and emaciated; had taken repeated vomits, rhubarb, and other medicines, without any good effect.

I ORDERED a saline medicine to be taken in the act of effervescence, joined with a few drops of laudanum, and directed him  
to

to eat frequently the most nutritious food in very small quantities. After this plan had been pursued some time without any advantage, I gave him columbo root, with no better success; and despairing at length of doing any good in the case, I advised him to leave off all medicine, and to take, three or four times a day, clysters of mutton broth. This resource probably lengthened out his miserable life some time; and at last he died of a marasmus, worn out with pain, fatigue, and want of proper nutriment.

ON the day after his death I examined his body, with Dr. Simson.—The seat of the disease was near the pylorus: the coats of the stomach at that part were indurated, thickened, and compressed the passage so much, as almost to obliterate its orifice. The villous coat of the diseased part of the stomach was a little ulcerated, but it appeared to have been the effect of a very recent change that had taken place in the part. The other viscera were in a sound state.

An AMPUTATION of a CANCEROUS BREAST.

CASE XXVI. **I** WAS sent for to Mrs. W——, of July 6, 1774. Prime-Thorpe, Leicestershire. Two years before I saw her, she perceived a lump in her left breast. In the course of a few weeks the disease increased, and she then applied to a surgeon in her neighbourhood, who advised her to leave it to nature. In the space of a year from the first appearance of the tumour, it seems that it made very little progress; but afterward it increased rapidly, and alarmed the patient and her friends.

MR. SMITH, an eminent surgeon of Leicester, was then called in, who advised the extirpation of the tumour; but the patient not consenting to the operation, he was obliged to be content with endeavouring to palliate the symptoms. He very prudently advised her to avoid every thing, which either by stimulus or acrimony might irritate the scirrhus, and convert it  
into

into a cancer. He administered the cicuta both internally and externally, and joined opium with the external application, whenever pain, or other circumstances, made it necessary. Notwithstanding these precautions, the disease every day gained ground.

WHEN I saw her, the whole breast was in a cancerous state, amazingly enlarged, ulcerated, and discharged a large quantity of corrosive sanies. The continual draining of this poisonous fluid, had inflamed and excoriated all the neighbouring parts with which it came in contact.

SUCH were the circumstances of a case in a patient of seventy-four years of age; under which, in consultation with her surgeon, I proposed the extirpation of the breast. The arguments in favour of this practice were:

FIRST, The breast, though so much enlarged, did not *apparently* adhere to the pectoral muscle.

I 3

SECONDLY,

SECONDLY, Notwithstanding the cancer was ulcerated, and had affected, by the acrimony of the discharge, the circumjacent parts, yet there were no certain proofs that the habit was diseased, or that the virus had been absorbed, the lymphatics and glands of the axilla being at this time perfectly free, and in a natural state.

THIRDLY, The patient sustaining so well an immense daily discharge from the diseased breast, might be admitted as a presumptive proof that she would as well bear the loss of fluids, which must necessarily be the result of the operation. And,

LASTLY, The certain prospect of a miserable death, if she did not avail herself of the only chance remaining of escaping from so terrible a calamity.

THESE reasons were submitted to the consideration of the patient and her friends, who agreed upon the operation; and on the 13th of July she came to Coventry.

As soon as she had recovered the fatigue of her journey, I amputated the breast, with the assistance of Messieurs Harrold and Yardley.—The basis of the tumour adhered to the pectoral muscle, part of which was cut off, to prevent any part of the cancer remaining. I likewise dissected as much of the adipose membrane surrounding the breast, as I could with convenience. From the day of the operation to the time the dressings were removed, no particular circumstance occurred: she was treated in the common manner.

SHE rested so well the first night, that an anodyne, which was directed to be taken in the beginning of the night, was omitted. The saturnine water of Goulard was applied cold, over the dressings, and to the inflamed parts, with such success, that the patient experienced very little pain; and in the course of a week the skin had almost resumed its natural colour and softness. On the fourth day after the operation, she had some degree of that fever, which generally precedes suppuration; the

symptoms, however, were moderated by neutral salts, and an anodyne at night.

July 21.

THE dressings were first removed, except some of the lint, which firmly adhered to the pectoral muscle. By the use of mild digestives the wound was soon clean, but the discharge was putrid, and of a bad colour. The patient became very weak, and the heat of the atmosphere was at that time excessive.

A STREAM of fresh air was procured through the room, by opening all the windows; she eat all kinds of fruit that were in season; she took an antiseptic draught \* every four hours, and the sore was dressed with a lotion of the same kind †. After this plan had been pursued two or three

\* R Extr. cor. Per. ℥ i.  
Tinct. cort. Hux. ℥ i.  
Elix. vit. acid. ℥ ss.  
Syr. cort. aur. ℥ i.  
Inf. cham. ℥ i. M. f. haustus.

† R Aq. font. ℥ i.  
Tinct. myrrh. simp. ℥ i.  
Merc. corros. sub. gr. iv.  
M. f. lotio.

days,

days, the discharge was altered for the better, both in colour and consistence, and the wound contracted so fast, that in six weeks it was reduced to the size of a crown-piece. At that time there arose from a part of the sore a fungus, of a dark colour, which became painful, and gleeted, notwithstanding all the rest of the surface produced laudable pus. Fearing, therefore, this might have been some remains of the original disease, I determined to involve it in a slough; and, to do this effectually, I pushed into the fungus a bit of corrosive sublimate, the size and figure of a barley-corn.

THIS application gave very little pain, and soon answered the intended purpose. In a few days a deep eschar separated, leaving under it healthy granulations. From this time every circumstance appeared favourable; and on the 20th of August Mrs. W—— left Coventry, with the reasonable expectation that the sore would be completely healed in a short time.

THIS

THIS much wished for event did not, however, take place: the glands of the axilla, and the lymphatics betwixt them and the edge of the sore, indurated. After she had been at home a few weeks another tumour arose, became painful, and ulcerated; the advance of the symptoms was rapid, and occasioned the death of the patient.

An ACCOUNT of a CANCER  
of the BREAST, where the tumour  
was twice extirpated, without success.

I WAS desired to visit Mrs. S——, of  
this city. She had a scirrhous tumour,  
which in the course of ten months occu-  
pied nearly half the right breast, above  
the nipple. It was perfectly free from any  
attachment to the subjacent parts, and the  
glands of the axilla were not in the least  
indurated. I informed her, that the ef-  
fects of medicine in such cases were ex-  
tremely uncertain; and advised her, with-  
out farther delay, to have the tumour re-  
moved by the knife. Two days afterward,  
in the presence of Dr. Simson and Mr.  
Harrold, I performed the operation.

CASE  
XXVII.  
March 12,  
1772.

THE sides of the wound were brought  
as close together as could be, with slips of  
sticking plaister; the patient took an opi-  
ate three nights succeeding the operation;  
and in less than four weeks the wound was  
well cicatrized.

AT

AT the expiration of four months she perceived another tumour, near the axilla, which became painful and enlarged every day. She was then directed to take the extract of cicuta, in as large doses as the stomach would bear; and to this medicine was joined a decoction of bark. The leaves and juice of cicuta, in the form of a cataplasm, were applied to the tumour.

IN a few weeks the disease made a quick progress; and, after consulting Mr. Sharp of London, and Mr. Harrold, it was again recommended to take that chance of recovery which the knife only, promised to afford. This was urged to her the more, as the disease was then advancing so fast, that it was to be feared, in a short time the tumour might be so much attached to the subjacent parts, as to render the extirpation of it difficult, if not impossible.

ON the 2d of November I performed the second operation; removed a part of the inferior edge of the pectoral muscle, to which the tumour adhered, and likewise

wife cut away a considerable quantity of the surrounding adipose membrane.

INSTEAD of treating the wound as before, that it might heal by the first intention, I filled the cavity with lint, to promote as large a suppuration as might be. The sore had for some time a very good appearance, and every day diminished in size; but after the fourth week it became again painful, the discharge was acrimonious, the superior edge was hard, and the parts betwixt it and the axilla became diseased; the subaxillary glands indurated; and, notwithstanding a plentiful use of the cicuta and bark, the ulcer spread into the axilla, and corroded some large branches of the artery, from whence death ensued.

THE two preceding cases are not related with a design to deter the young practitioner from extirpating cancerous tumours, but to afford a caution, that, previous to the operation, his promises of a cure ought to be guarded and reserved. In this view, therefore, I thought their communication  
might

might be more useful to the profession than the relation of many other cancerous cases, in which I have employed the knife with success.

THE second case here described, was one of the most promising I ever saw; but when the disease is not merely local (and of which we can have no sort of evidence) however favourable appearances may seem at first to the surgeon, the event of the operation will ever be extremely uncertain. I remember to have seen a scirrhus tumour extirpated from the inside of the knee, by an eminent surgeon, and the wound produced by the operation completely healed. Some months afterward another swelling arose under the cicatrix, which spread into the ham, and seemed to adhere to the femur. In consultation amputation was advised, and performed. When the wound was thought to be in a favourable state for healing, a cancerous fungus sprouted from the extremity of the bone, and, before the patient died, a disease of the same kind made its appearance in his mouth.

OBSER-

OBSERVATIONS on the utility of  
BLISTERS, applied to the UM-  
BILICAL REGION in the ILE-  
US, and INVERSION of the PE-  
RISTALTIC MOTION of the  
INTESTINES from other causes.

SIR John Pringle \* recommends the application of blisters to the painful part of the abdomen, in the ileus; and observes, that “ he has more than once “ known the patient relieved, as soon as “ he has felt the burning of the skin, and “ at the same time have stools by a purge “ or clyster, which had been given before “ without effect.”

IN the three following cases a blister applied *round the navel* succeeded, when the means usually employed in such circumstances had been previously tried without success. The first was a true ileus; in the second the intestines appeared to have been inflamed, in consequence of external

\* Diseases of the Army, p. 150.

injury;

injury; and in the third, there was a complete inversion of the peristaltic motion, clearly symptomatic; and which seems to afford a strong presumptive proof, that the operation of cantharides, so applied, is merely antispasmodic.

CASE I. **O**N the 3d of February, 1774, I was desired to visit a young man in this city, who had been attended two days by an apothecary. He had repeatedly bled him, ordered clysters, fomentations, opiates, and a variety of solutive medicines in a fluid state, and in the form of pills, without the least advantage.—The symptoms were, a constant and acute pain below the navel, continual vomiting, hiccough, languid pulse, costiveness, and a cadaverous countenance.

I DIRECTED a large blistering plaister, with a perforation in its center, to be applied *round the navel*; and, being determined to wait the effects, I ordered no medicine. Soon after he experienced the pain of the blister he enquired for the close-  
stool,

stool, had an evacuation, by which he was much relieved, the pain of the abdomen gradually abated, and in a few days he was restored to health. A proper attention to diet was observed; but the patient took no medicine after the application of the blister.

**I**N the beginning of the year 1777, a boy, fifteen years of age, accidentally fell from the wall of a gentleman's garden, upon some iron pallisadoes, the spikes of which projected seven inches beyond the horizontal rail. He was suspended some time; and, when he was taken off, it was discovered that he had several wounds in his belly, through one of which a part of the intestines protruded.

CASE  
XXIX.

I WAS engaged, when this accident happened, in other business; and therefore sent a gentleman (at that time a pupil of mine) to the assistance of the patient, with instructions, if he found any difficulty in returning the prolapsed intestine, to make a dilatation of the wound

K

with

with a bistoury, sufficient for that purpose\*. He pursued my directions in every respect, but could not succeed.

I saw the boy in the evening. There were two perforations into the cavity of the abdomen, at some little distance from the navel, and a third in the right flank, near the flexure of the thigh, through which a small portion of intestine was still *strangulated*, although the wound of the integuments was very properly dilated. I discovered, upon a more minute examination, that the intestine was forced under *Poupart's ligament*, from whence the impediment to reduction arose. With a probe-pointed curved bistoury, guarded by the fore-finger of my left-hand, I divided the ligament, in such a degree as was necessary for the re-admission of the intestine. The wound was united by the interrupted suture. Great attention was paid to every circumstance which might be sup-

\* " Si angustius vulnus est, quam ut intestina commode refundantur, incidendum est, donec satis pateat." Corn. Cels. Medic. Lib. VII. Cap. 16.

posed to regard either the present welfare, or future recovery of the patient. The intestinal canal was kept open by clysters; pain was relieved by anodynes; saline medicines and neutral salts were given, to abate the febrile heat, which supervened the day after the accident; fomentations were applied to the abdomen; and blood was freely taken from the arm. Notwithstanding these precautions, which (there was reason to hope) might have afforded better success, symptoms of the most alarming nature very soon made their appearance.

ON the fourth day the pulse was quick, the skin hot and dry; he was extremely restless, and there was a general tension, accompanied with pain, throughout the whole abdomen. The wound of the groin was particularly painful; its edges indurated, and, upon pressure, some very offensive matter was forced out. To give as free a discharge to it as possible, the threads of the ligature were cut through, and the patient was ordered to lie frequently upon

the affected side. Before the next day the discharge of matter was plenteous, and the relief obtained considerable. All the bad symptoms by degrees abated; and when the inflammatory diathesis was removed, I ordered him the bark.

IN twenty days after the accident, the two superior wounds were entirely healed, and that of the groin in a good state, affording a proper quantity of thick pus, which lessened every day; so that no doubt seemed then to remain, but in a little time the cure must have been completed. But before this event happened, and near a month from the time of the accident, without any certain apparent cause, all the symptoms of the ileus came on. He was costive, vomited, and had a constant and most violent pain in the inferior part of the abdomen.

HE was then ordered some pills of calomel, opium, and extractum catharticum, and in the intervals of the hours when he took them, he drank a small quantity of a solution of the sal cathart. amar. Clysters were

were also directed, and a fomentation was applied to the abdomen.

ON the ensuing day he was worse in every respect; a hiccough attended, and the clysters produced no stool. The calomel pills were repeated, and in the intermediate hours he took a draught, composed of a solution of castor oil in peppermint water, with a few drops of laudanum. In the evening he was exactly in the same state, when a large blister was applied to the umbilical region. Before the next morning his vomiting ceased, he had several stools, and the pain was in a great degree abated. From this time he gradually recovered, and continues as well as he ever was before. When he first went abroad a crural hernia happened, from Poupart's ligament having been divided; but this was remedied, by the application of a proper elastic bandage\*.

\* Tulpius relates a case, where a hernia succeeded a wound of the abdomen, which being neglected, produced a mortification and death, several years after the accident happened. *Observ. Medic. Lib. III. Cap. 20. p. 211.*

CASE  
XXX.

ON the 5th of November, 1778, John Sneith, a boy fifteen years of age, received a violent blow upon the head, from the edge of an iron-hooped pail, which fractured the scull. Although a considerable portion of the os frontis was depressed, the boy was exempt from most of those symptoms, which usually attend such accidents; and the day after he received the blow, he was very sensible, and could walk about.

AT this time, in consultation with Mr. Harrold, it was agreed, by repeated application of the trephine, to remove all the fractured portion of the bone. After the operation (which was performed *without cutting off any part of the scalp*) he was kept quiet, and a clyster was directed.

THE next day he was feverish, complained much of his head, and vomited\*.

\* From the wonderful sympathy which prevails betwixt the head and the precordia, Scultetus observes, that almost all those who receive wounds of the head, complain of a bitter taste in the mouth. Scultet. Armament. Chirurg. p. 198.

As the clyster given the day of the operation had not procured any evacuation, he was ordered another, in which an ounce of Epsom salt was dissolved. This had no better success; and in the course of the day he had two more clysters, neither of which answered the intended purpose; and his nurse supposed they came up by the mouth, as the sickness and vomiting were always occasioned as much after them, as when he took any thing into the stomach.

SOME blood was taken from the arm, and a small pill was administered, containing one grain of opium, and three of calomel. On the third day from the operation, the hopes of his recovery were small; the fever increased, attended with continual vomiting, by which the contents of the intestines were discharged upward. Clysters were repeated, but no stools were procured; and it appeared evident, that the peristaltic motion of the intestinal canal was *totally inverted*. In the evening he became delirious, and it required constant

attention to keep him in bed. He had taken, during the day, saline draughts, in a state of effervescence, with a few drops of laudanum; but neither these, nor any thing we could contrive, staid upon his stomach longer than a few minutes.

IN this deplorable state of the case, when every effort of art proved so absolutely inefficacious, a large blister was applied *round the navel*, and its success much exceeded our expectations. After the blister had been upon the abdomen four hours, the vomiting ceased, and *never returned* afterward. Before the next morning he had two stools, and was in many respects better, although he still continued very ill. The delirium was gone, but he had great pain in his head; his pulse was quick, and in the evening of the fourth day he was so restless, that we thought it necessary to give him an opiate.

ON the 5th he was much in the same state, and this night he had several stools, which were succeeded by a strangury,  
and

and such a violent irritation of the rectum, as to occasion a constant tenesmus. An erysepelatoſe eruption alſo covered the whole ſurface of the body. The ſtrangury and tenesmus were attributed to the action of the cantharides, and they were, after ſome time, relieved by drinking a decoction of maſh-mallow roots, and a ſolution of ſpermaceti, with a proper quantity of thebaic tincture.

ON the ſeventh he was much reduced in ſtrength, but continued ſenſible; his face was pale, his pulse languid, the wound dry, and ſhewed not the leaſt diſpoſition to digeſt; and the circumjacent parts were flabby and œdematous. The bark was then given, and repeated until the eleventh day, when he was much better; his ſtrength increaſed, and the edges of the ſore wore a more favourable aſpect; but the ſurface of the dura mater was ſtill black and putrid. The parts were dreſſed with an antifeptic baſam, compoſed of mel roſar. & baſ. traumat. āā. p. e.

THE dura mater soon afterward sloughed off, and a fungus arose from the brain; but this appeared to have been restrained by dry lint, assisted with moderate pressure. The patient continued to mend every day, and on the 12th of January the wound was completely cicatrized.

QUERY, Did the blister in this case remove the spasm of the intestinal canal, by exciting pain on the skin of the abdomen? Or was the peristaltic motion *re-inverted* by the action of cantharides, absorbed into the system, and thence irritating the neck of the bladder and rectum?

The DISSECTION of a WOMAN  
in the last month of PREGNANCY.

**I**N the year 1772 a poor woman of this city, in lifting a weight too great for her strength, was seized with a flooding. Being very near the expiration of her reckoning, she sent for a midwife, who tried every method she could think of, for some days, to stop the discharge, but in vain. Within a few minutes after the poor woman died, I was hastily sent for, by those about her, to extract the child, which they affirmed to be alive.

CASE  
XXXI.

I WAS very glad to embrace this opportunity of seeing the gravid uterus, and therefore immediately laid open the cavity of the abdomen, by a crucial incision.—The body of the uterus was rather to the left side; the small intestines were pushed to the right, and against the liver. I opened the uterus longitudinally, and found the child surrounded by the water, the membranes not having been broken.

The

The foetus was dead; the head rested upon the brim of the pelvis, the occiput corresponding with the center of the opening. The os uteri was not much dilated; the placenta adhered to the cervix, excepting a small portion, which had probably been separated by the strain, and which had been the cause of the flooding, and death of the woman.

An

An UNIVERSAL EMPHYSEMA,  
occasioned by the absorption of putrid  
fluids from the uterus.

I WAS called to Mary Winny, in this  
city, who had been a week in labour. CASE  
XXXII.  
July 24, 1774.  
The midwife attending informed me that  
the child presented right; that the labour  
had from the beginning proceeded in a  
very slow manner, but that of late her  
pains had left her, and on the day before,  
her body had began to swell; whence sup-  
posing her in great danger, she had desired  
that I might be sent for.

UPON entering the room, the air was  
so putrid and offensive that I could scarce  
bear it. The patient's skin was hot, and  
communicated a painful sensation to the  
touch; her whole body, particularly the  
face, was much inflated. The reticular  
membrane of the eye-lids was so much  
distended, that she had no power of open-  
ing them, and she complained much of  
thirst and internal heat. When the swell-  
ing

ing was examined more particularly, it was discovered to be emphysematous, and that the cellular membrane was univervally blown up by air. The head of the child was at that time engaged in the center of the pelvis; the scalp peeled off, which, together with the cadaverous smell, proved that it had been dead some time.

I OPENED the head, and with a crotchet extracted the child, in a very putrid state. The patient was ordered into another room, the windows and doors of which were kept constantly open. She was directed to eat currants, gooseberries, and cherries; her common drink was Port wine and water, with orange and lemon juice; and every two hours she took two ounces of the tincture of roses.

SHE had a better night after her delivery than could have been expected; the next day she was cooler, and not so much swollen; on the third day she could open her eye-lids. The antiseptic plan was pursued: she took the bark; by degrees the  
general

general tumefaction subsided; the patient (contrary to my expectation) recovered; and, at the expiration of five weeks, was as well as women usually are after lying-in.

THIS uncommon case clearly proves, that, in consequence of putrefaction, air may escape from the fluids into the cellular membrane, or that part of it where there is the least resistance; that, being rarefied by febrile heat, it may distend the body in a wonderful manner, and produce a general emphysema. Huxham has given an account of two cases of emphysema, which arose from a putrid cause. The instance here related, seems likewise to demonstrate that putrid fluids may be absorbed into the system from the uterus, and be a cause of very dangerous puerperal fevers.

An ACCOUNT of a fatal RETRO-  
VERSIO UTERI.

CASE  
XXXIII.  
July 7, 1777.

**I** WAS desired, by the parish-officers of  
Allesley, to visit Elizabeth Arnold, a  
poor woman belonging to that place. I  
found her in a very weak state, and com-  
plaining of violent pain in the back and  
abdomen. Her pulse was very quick and  
tremulous; her tongue dry, and of a dark  
colour; she vomited frequently, and was  
much fatigued with a troublesome hic-  
cough; she had been costive ten days, and  
I was informed her urine distilled from her  
involuntarily. Her complaints in general  
seemed to me so much to resemble those  
attending an intestinal hernia under stran-  
gulation, that I enquired whether she had  
any particular swelling in her groins or  
belly, and was informed she had a great  
swelling at her navel. Upon examination,  
I discovered a general tension of the abdo-  
men, and a large elevated tumour at the  
navel, which protruded so much, as to re-  
semble the half of a melon. The skin upon  
the

the apex of the tumour was inflamed, and so irritable, that the least touch or pressure upon it gave her much uneasiness. A surgeon and apothecary in the neighbourhood had ordered various medicines for her relief, none of which were retained in her stomach; and a blistering plaister had been applied upon the tumour.

FROM her description of the symptoms, at my first visit, I must confess I apprehended that a large quantity of the intestinal canal was protruded at the navel; therefore ordered a stimulating clyster to be injected into the rectum as soon as possible, and gave her internally a solution of the oleum Ricini, in mint-water; a compress saturated with cold vinegar was directed to be applied to the tumour.

THE next day, July the 8th, I saw her again. Her attendants had not been able to administer the clyster, the pipe could not be introduced. She had four thin stools after she began with the mixture, and her vomiting had been much less frequent

quent than on the preceding day. Notwithstanding the relief that might have been expected from an open state of the belly, the swelling at the navel was increased, and was become more painful than before. The case appearing now more mysterious than ever, I again desired to hear the history of her complaints; and was told, that, three weeks before I saw her, she imagined herself to be more than twelve weeks gone with child; that one day she had been much tired in weeding corn, had sat three hours upon the cool grass to rest; that she was taken ill in the evening, and, from the pains she experienced, believing she was going to miscarry, she sent for her midwife, who informed her she was not pregnant. She was seven and forty years of age, had had several children, the last of which was born when she was five and forty.

I EXAMINED the vagina, and the case then appeared very plain. A large, hard, circumscribed tumour was situated betwixt my finger in the vagina, and another introduced

duced into the rectum. I could neither discover the os uteri, nor with ease pass my finger betwixt the tumour and the symphysis of the ossa pubis. Having attempted, several times, to introduce a catheter into the bladder without success, I made a very considerable pressure upon the tumour in the vagina, which receding a little, a small stream of urine rushed out. The catheter was then easily introduced, and six pints were drawn off: the tumour at the navel immediately subsided. The pressure upon the rectum was so great, as not to allow of a clyster passing; as soon, therefore, as the bladder was emptied, I placed the patient upon her elbows and knees, in the manner recommended in the Medical Observations and Enquiries, and having introduced two fingers of the left-hand into the rectum, and as many of the right as I could pass into the vagina, I endeavoured to replace the retroverted uterus; but it was so locked up in the pelvis, that I could not succeed.

July 9.

SHE was much worse and weaker in every respect. I drew off by the catheter on this day, about four pints of urine, and again tried various methods to reinstate the uterus, but all my endeavours were ineffectual. She now sunk very fast, and every symptom became worse; in the evening there was an appearance of blood upon the linen and bed-cloaths, and on the next day she died.

THE day succeeding her death I examined the body, assisted by Mr. Harrold. —The bladder was very much distended, and its fundus extended higher than the navel. The intestinal canal, in general, was filled with air, and in many parts discovered marks of inflammation. The inferior part of the tube was more particularly diseased. The colon was amazingly enlarged, inflamed, and the mesocolon interspersed with gangrenous spots. The bladder contained a large quantity of bloody, coffee-coloured urine; and more than half a pound of coagulated blood was in its cavity. I made a transverse incision through the inferior

inferior and posterior part of the bladder, into the upper part of the vagina, and discovered the *os tincae* presenting to the superior part of the symphysis of the ossa pubis. I passed a catheter into it, the instrument took a direction downward, and with my finger in the vagina, felt its point in the *fundus* of the uterus, now resting upon the os coccygis. By pressing alternately on the upper and lower parts of the uterus, I could very distinctly feel, at the inferior part of the vagina, the head of the foetus fluctuate and strike against the point of my finger, which was then opposite the fundus of the uterus.

THE pelvis was so filled up that, notwithstanding all resistance from the integuments and abdominal muscles was removed, and the weight of the intestines and bladder taken off, we could not reduce the uterus, until we had divided the symphysis of the pubes. Then introducing my hand into the vagina, I returned the gravid uterus, and we were surpris'd at the size of it. It contained a male foetus, com-

pletely formed; the membranes were unbroken, nor were any of the contents in any respect diseased; there was a considerable quantity of the liquor amnii.

DR. DE LA COUR of Bath, and Dr. Simson of this place, saw the uterus, &c. at my house, the day after the dissection, and were of opinion that the foetus must have been at least four months old at the time the woman died. If a similar case was to occur in my practice again, I should be inclined to try the method recommended by Dr. Hunter; by a small trochar to perforate the uterus through the vagina; from this operation the liquor amnii would be discharged, and an opportunity given of reducing the uterus; or if reduction could not be immediately accomplished, abortion might take place, which would probably answer the same beneficial purposes.

An UNCOMMON CASE in  
LITHOTOMY.

**T.** OLDHAM, of Griff, in the county of Warwick, came to Coventry, to be cut for the stone. In the presence of several gentlemen of the faculty, I performed the operation. When the forceps was introduced into the bladder I could very distinctly feel the stone, and obtained a firm hold of it between the blades of the instrument. In attempting to extract it, I met with so much resistance, that it unfortunately slipped out of the forceps, into such a situation of the bladder, that it could not afterward be touched, although several endeavours were made for that purpose, by myself and the other gentlemen, with various kinds of forceps, both straight and curved. After fatiguing the patient to no good purpose for a considerable time, it was judged expedient to order him to bed, and to defer any other attempts to extract the stone, until those symptoms which we expected would be

CASE  
XXXIV.  
Oct. 13, 1775.

the result of the injury the parts had already suffered, should have subsided.

THE symptomatic fever was as favourable as it usually is after any of the great operations of surgery; and, with the assistance of an opiate, the patient slept several hours the first night. His bowels were kept open by clysters, and such other directions given as the nature of the case seemed to require. On the fifth day he was so well, that we determined to make another attempt to extract the stone.

ACCORDINGLY, the patient being placed upon a table, in the same situation, and secured in the same manner as when he was cut, by means of a common director a gorget was introduced into the bladder, to serve as a conductor for the forceps. The stone was again, with some little difficulty, engaged in the forceps; but, probably from the same cause as before, it could not be extracted, notwithstanding all the precautions we used on this occasion. When it slipped out of the  
forceps;

forceps, the patient said that he found it was drawn up high in his body, as if it had been acted upon by a sucker. After this happened, we were never able to touch the stone again by the instrument. It probably got into a pouch of the bladder, near the fundus, because, after its retraction from the forceps, we could feel it by pressing, over the ossa pubis; but neither this pressure, nor any change in the position of the body, made any alteration in the situation of the stone. In the space of thirteen days he was placed five different times upon the table, and every effort we could devise to extract the stone was practised without success.

By so much reiterated pain and fatigue, the life of the patient was reduced to great hazard. He was kept, however, as easy as such circumstances would admit, by a very free use of opium. On the fourteenth day, after a very restless night, there happened a large discharge of purulent and offensive matter from the bladder. The next day I secured the stone within the  
blades

blades of the forceps, and extracted it with very little difficulty.

THE various attempts to extract the stone, accompanied with so much pain and irritation, brought on such symptoms, that we could not flatter ourselves (although the stone was now removed) that the man could live many days. His voice was so low and hoarse that it could scarce be heard; his tongue was dry and brown; the whole internal surface of the mouth was covered with aphous incrustations; his pulse was weak and intermitting; he hiccoughed often; and a very extensive mortification occupied the region of the os sacrum.

NOTWITHSTANDING these very dangerous circumstances, the patient gradually recovered a perfect state of health; the urine, after some time, flowed through its proper channel, and the wound was completely cicatrized. The apthæ were soon cured by the expressed juice of turnips, given internally, as recommended by Kattelaer,

telaer \*, and a plentiful use of the bark appeared to be serviceable: but the patient probably owes his life to the great abilities and attention of Mr. Harrold, who superintended the whole treatment.

I REMEMBER to have seen in London a man, who had been cut for the stone at Montpellier: he had with him a certificate, signed by four surgeons, describing the particulars of the operation, and setting forth, that the extraction of the stone could not be accomplished until the third week after, although many attempts had been made for that purpose. At length they succeeded, after a suppuration of the internal coat of the bladder had loosened an adhesion, which, in *their opinion*, had taken place between the stone and the bladder.

\* Katelaer de Aphthis, p. 50.

A DESCRIPTION of the PRESENT METHOD of OPERATING for the STONE.

**T**WO days before the operation, if the patient is plethoric, some blood should be taken from the arm, and he may use a warm bath in the evening. The next day after bleeding, a proper dose of manna and Rochelle salt should be given in the morning, and at bed-time an anodyne draught is to be administered. A common clyster must be injected into the rectum, two hours before the operation; and after its discharge the patient should be instructed to retain his urine, that the posterior part of the bladder may be secured from injury when the cutting gorget is introduced.

THE perinæum having been shaved, and the patient properly secured upon a table of convenient structure, the surgeon must pass the groove<sup>d</sup>-staff into the bladder; by inclining its handle obliquely toward the  
right

right groin, the groove will present to the left side of the perinæum. The staff is then to be delivered to the assistant surgeon, who is not only to hold it firm, but to give it some degree of pressure forward, and in the direction he received it; another person is to support the scrotum. The operator is to fix himself in a chair of convenient height, with his right foot upon a stool, that by resting his elbow on his knee, his hand may be supported with more steadiness during the operation. The knife is then to be introduced at a point a little on the left side the raphe of the perinæum, and about half an inch below the symphysis of the ossa pubis. The incision is to be carried on obliquely downward and outward, and to terminate rather below the obtuse process of the left ischium. If this is properly done, the length of the incision in adults will be about three inches and a half. Another incision must then be made nearer the middle line of the pelvis, and of less extent than the former, by which the *transversalis perinæi*, and part of the fibres

fibres of the levator ani muscles, should be divided. The line of this incision will be close to the left side of the musculus accelerator urinæ, which will, in some degree, be removed from its natural situation, by the oblique direction of the staff. The design of this process is to expose the *membranous* part of the urethra, through which the groove of the staff ought to be distinctly felt. If this cannot be done to the satisfaction of the surgeon, he must dissect a little deeper through the cellular membrane, and divide any bridles or fibres that may happen to be in his way. When the groove of the staff can be accurately distinguished, the operator is to press the end of the nail of his left thumb upon the right edge of the groove, by which he may with facility conduct the point of the knife into the sulcus. When he is certain the knife and groove of the staff are in *naked contact*, he is to divide the membranous part of the urethra to the anterior surface of the prostate gland\*.

\* The term *anterior* is here used in relation to the *supine* position of the patient.

THE wound of the urethra having been thus properly made, the surgeon is to introduce the beak of the common *cutting* gorget into the groove of the staff, where he must sustain its situation with firmness, and rising from his chair, he is to take the staff in his left-hand, from the assistant. The direction of the staff is then to be changed. Hitherto it had been pressed downward, and obliquely forward, to facilitate the intention of cutting into the groove; the handle is now to be brought forward, by which the point in the bladder will be raised, and the curvature removed nearer the arch of the pubes \*. The handle of the gorget is to be pressed as low down by the side of the anus as the wound will admit, and its beak is to be pushed upward and along the groove of the staff, until it enters the bladder; by which manœuvre the prostate gland will be divided laterally, and the danger

\* If this circumstance is not attended to, the gorget may be pushed into the cellular substance betwixt the rectum and bladder, or even into the cavity of the former; an accident I once saw happen to an operator in London.

avoided

avoided of wounding the left feminal duct, which opens close to the caput Gallinaginis, now supposed to be in the fulcus of the staff.

THE surgeon will know when the gorget is in the bladder, by the efflux of urine. The staff is then to be withdrawn, and the forceps, conducted by the gorget, introduced into the bladder. The gorget must be removed, and, before the blades of the forceps are opened, every endeavour should be made to ascertain, with all possible precision, the situation of the stone. It frequently is the case that it lies in a kind of bed, formed by its weight and pressure, below the prostate gland, and the moment the forceps is opened, it gets beyond and over the stone. When this happens, it will be adviseable to employ a pair of forceps whose blades are curved, or form an angle with the handles of the instrument. If the stone is situated higher in the bladder, and there touched by the points of the straight forceps, the operator, at the same time that he opens the instrument,

ment,

ment, should advance it, otherwise, when he closes the forceps to embrace the stone, it will only rub against its anterior surface; because as the blades divaricate, they describe a segment of a circle, and are every moment receding from the stone, if the caution here given is not observed.

IN the extraction of the stone, the surgeon must avail himself of his anatomical knowledge of the bones and ligaments of the pelvis. He will reflect, that if he gives the forceps a direction upward, he will be resisted and counteracted in his designs by the branches of the ossa pubis, which are not capable of giving way; whereas if he acts directly downward, or obliquely to the left side, the os coccygis and sacro-sciatic ligament will admit of considerable dilatation.

FOR more minute directions relative to the engaging the stone in the forceps, or its consequent extraction, I must beg leave to refer the reader to *Monf. le Dran* \* and

\* *Le Dran's Operations*, translated by Mr. Gataker, p. 239, &c.

Mr Bromfield \*, who have treated these subjects very copiously.

A FISTULA in ANO, from which a stone was extracted.

CASE  
XXXV.

**I**N the month of November, 1774, Mr. A——, of Warwick, applied to me on account of a fistula in ano, which he had been afflicted with more than twelve months. Upon examination, an aperture was discovered about half an inch from the verge of the anus, on the left side.

THROUGH this opening I introduced a probe into the sinus, more than two inches deep, in a direction parallel with the rectum, and felt at the bottom a stone. From the nature of the discharge through the fistulous opening, I suspected likewise there was a communication with the rectum. I passed a probe-pointed curved bistoury to the bottom of the sinus, and receiving its point upon my finger, within the rectum,

\* Chirurgical Observations and Cases, Vol. II. p. 233.

withdrew them together, by which means the cavities of the fistula and rectum were laid into one, and, by the same stroke of the knife, the sphincter muscle was divided. A pair of common forceps being conveyed into the wound, I extracted a stone, which appeared to have belonged to a plumb or apricot.

No other particular circumstance occurred worth relating in this case. In the space of two months the wound healed; but the patient (from his age, and the sphincter muscle having been much weakened by disease) experienced some inconvenience from not being able, at all times, to retain his excrement.

An ACCOUNT of the good effects  
of DIVIDING the APONEURO-  
SIS of the BICEPS MUSCLE,  
in a painful lacerated wound \*.

CASE  
XXXVI.

A Plethoric young woman, servant to  
the Rev. Mr. Goodwin, at Lough-  
ton in Buckinghamshire, on the 11th of  
June, 1769, was thrown from a cart, and  
in the fall received a wound by a flint, in  
the flexure of the arm. I saw her soon  
after the accident: she was then in great  
pain; there had been a considerable hæ-  
morrhage, and her arm was much swol-  
len. The wound was transverse, near an  
inch in length, its lower extremity termi-  
nating at a little distance from the inner  
condyle of the os humeri. The *fascia* of  
the biceps muscle was torn, and part of it  
appeared ragged between the lips of the  
wound.

\* This case was published in the fourth volume of the  
Medical Observations and Enquiries.

AN emollient cataplasm \* was applied to her arm ; sixteen ounces of blood were taken away ; the fore-arm was kept in a bent position, to relax the biceps ; and the patient was directed to bed : a laxative medicine was also ordered to keep the body open. She passed the night very ill, and was feverish ; her arm was excessively painful ; she could neither move it herself, nor would she suffer it to be moved by any one else.

A FORTNIGHT elapsed, during which time the bad symptoms I have described continued, notwithstanding a strict anti-phlogistic plan was pursued. The pain was so acute, that even opium produced neither ease nor sleep, and the great irritation kept up a constant fever, accompanied alternately with shiverings and weakening sweats. The wound discharged a

\* From the experience I have since had, in some cases where the aponeuroses of tendons have been wounded, I have reason to believe, that if *cold astringents* had been employed in the above recited case, instead of *warm emollient* cataplasms, there would have been no necessity for dividing the fascia of the biceps muscle.

thin gleet, of a greenish colour; the parts around it were much indurated, and, as she expressed it, her arm felt as if it had been bound tight by a cord.

IN these distressing circumstances, when her life was apparently in the greatest danger, I determined to divide the *fascia*, thinking, by taking off the stricture, we should probably have an alteration in our favour. On the twenty-fifth of June I made an incision, two inches long, through the integuments and aponeurosis of the muscle. As soon as this was done, the divided parts of the fascia flew open, and the success was equal to our expectation. She was relieved immediately; the pain, tumour, inflammation, and fever left her; and the first time the dressings were removed after the operation, there was laudable pus, instead of the thin gleet which had been before constantly discharged. The wound granulated and healed as soon, and with as little trouble, as if it had been in any other part of the body. It may be necessary to observe, that there was no

matter

matter under the *fascia*, nor was the division of it attended with much pain.

WHOEVER considers the great irritability of parts in a state of inflammation, and how much the pain is increased by any pressure of bandage, will easily account for the sudden relief which this person had from a division of the *fascia*, the inelasticity of which prevented it from giving way to the swelling of the parts beneath it; and this case seems to make it extremely probable, that the bad symptoms following wounds of the tendons, and their aponeuroses, result more from mechanical pressure, than any peculiarity in the structure of these parts, which were, till of late, thought so exquisitely nervous and sensible.

The HISTORY of a RUPTURE  
of the CRURAL VEIN, attended  
with a very large extravasation of blood.

CASE  
XXXVII.  
May 8, 1772.

**M**R. B— had the misfortune to fall  
from his horse, and was rode over  
by another gentleman, close behind him.  
He was carried to an inn at Nuneaton,  
and a surgeon resident at that place im-  
mediately sent for. The next day, some very  
alarming symptoms having appeared, I was  
desired to visit him, with an eminent phy-  
sician of this city.

IN the superior part of the right thigh,  
near the groin, and just below Poupart's  
ligament, was a small eschar, which ap-  
peared to have been occasioned by the vio-  
lent pressure and blow of the horse's shoe.  
The integuments of the anterior part of  
the thigh, as well as of the inferior region  
of the abdomen, were raised up in a very  
extraordinary manner by extravasated blood,  
and the whole scrotum was prodigiously  
enlarged.

CLOTHS

CLOTHS wetted with a solution of crude sal ammoniac in vinegar, were continually applied cold to the affected parts, to promote the reabsorption of the fluid; and every proper direction was given by Dr. Simson, respecting the internal treatment of the patient.

THE success attending the methods that were pursued was so great, that on the fourth day from the accident, more than half the extravasated blood appeared to have been taken into the road of circulation. From this time the process of absorption did not appear to go on so rapidly; the eschar was separating, in every point, from the contiguous parts; and we had apprehensions that it might, possibly, have been thrown off before the wound of the vessel which had furnished the extravasated blood, should have been healed. The cold application of vinegar, &c. was therefore continued until the eighth day, at which time the slough came away, with a large quantity of thick grumous blood. The parts affected were then covered with  
the

the ceratum saponaceum, except the wound, which was dressed with a pledget of soft digestive, that as little impediment as possible might be given to the discharge. The grumous blood came away every day in considerable quantities, by which the bulk of the tumour was diminished; there was no return of internal hæmorrhage; and in two months the cure was perfected, without any particular accident, but the epididymis of the right testicle remained for some time indurated and enlarged.

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 tion. From this time the process of ab-  
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An ANEURISM of the POPLI-  
TEAL ARTERY, with some  
REMARKS on ANEURISMS  
in general.

**I**T hath been incontestibly demonstrated,  
that the principal arterial trunks of the  
leg and arm may be tied in the operation  
for the aneurism, and the circulation of  
the blood afterward carried on by the col-  
lateral anastomosing branches\*. It hath  
been said, and indeed upon the evidence  
of reason and experience, that this opera-  
tion will succeed best when a due degree  
of pressure upon the tumour hath been  
previously made, by which the collateral  
branches will be gradually dilated, and the

\* Parey was the first person who secured the bleeding  
vessels *after amputation* with a ligature; but this method  
was recommended long before.—Thus Galen says,  
“ Quippe de genere obturantium quodammodo est, &  
“ vinculum ipsis vasis sanguinem fundentibus circumpo-  
“ situm, ipseque nostri digiti, dum ea committunt &  
“ constringunt.” Method. Med. Lib. V. Cap. 3. Charter.  
Tom. X. p. 107, &c.—From the time of Galen to Am-  
brose Parey, surgeons were used to restrain hæmorrhages  
from the larger arteries with the actual cautery.

new road for the blood opened, before the old one be rendered impervious.

THE recommendation of the use of pressure, as a proper preparative for the operation, must, however, be received with limitation, as there are some species of the spurious aneurism, where it cannot be supposed to take place. Till within these very few years, it was an opinion generally received amongst surgeons in England, that if the principal arterial trunk of the arm or thigh was tied, the parts below the ligature must necessarily mortify, from an interception of the blood which should nourish them. Whenever, therefore, an aneurism had its seat in the crural or humeral artery (above the flexure of the elbow joint) nothing but amputation was thought of. Some very eminent surgeons have declared their opinion, that whenever the operation for the aneurism hath succeeded in the bend of the arm, the artery had divided above the part (a variety sometimes observed) and a branch only had been included in the ligature.

ANATOMISTS have discovered, by their injections, that the whole body is an anastomosis of vessels, and by this wise disposition of our machine, whenever the vascular system of any particular part is obstructed, the circulation will be carried on by the collateral vessels. It seems to have been reserved for modern surgery, to prove that even the trunks of the humeral and *crural* arteries may be included in a ligature, and, notwithstanding the great impediment to the circulation of the blood, which must be the result of the operation, the parts below will neither in general mortify, nor be deprived of their use.

THE change which takes place in the mode of circulation of the blood after the operation for the aneurism, hath sometimes occurred from some particular disease of the arteries. I have seen an injected preparation (the history of the person it was taken from I cannot recollect) where the cavity of the crural artery was obliterated the length of two or three inches, and in which

which the collateral branches were so wonderfully dilated, that the progress of the circulation might very well be supposed to have been carried on without any great hindrance.

MR. ANTROBUS of Liverpool hath recorded a case, in which the patient's foot was mortified, and a separation took place, accompanied with good digestion, *two inches* above the ankle. The leg was amputated at the usual place below the knee, and when the tourniquet was slackened, there was no efflux of blood from the divided arteries, nor any pulsation to be perceived in their extremities \*. In this case it appears, that after the principal arteries had been, by disease, rendered useless, the circulation was carried on by the collateral branches with sufficient force to produce a good digestion, at a considerable distance below the sound part of the large vessels.

I HAVE been myself witness to a case nearly similar to that related by Mr. An-

\* Med. Observations and Enquiries, Vol. II.

trobus, where no hæmorrhage happened from the principal arteries, either at the time of amputation or afterward, although nothing more styptic than dry lint was applied to the stump; the digestion and cicatrization of the wound went on without interruption.

THE first account of the crural artery being tied, we meet with in Severinus. The case was a spurious aneurism, and the ligature was made upon the artery so near the groin, that amputation could not have been performed. The patient was young, and perfectly recovered the use of the limb\*.

SOME few years since Mr. Burchall, of Manchester, tied the crural artery with success, for an aneurism. This operation was performed in the Manchester infirmary, on the 4th of March, 1757. The patient was discharged cured, on the 17th of April following, and the limb was found

\* Marc. Aurel. Severin. de Effic. Med. Lib. I. Part 2. p. 51, &c.

nearly

nearly as strong and as serviceable as the other, when he was afterward examined by the Medical Society of London \*. From the circumstances of this well authenticated case, there can remain no degree of doubt but that the *trunk* of the crural artery was tied in the operation. Since the publication of Mr. Burchall's case, the crural artery has been tied by Mr. Leslie of Cork, in a spurious aneurism, and with success †.

IN all controverted points of surgery, the most certain rule to direct our conduct will ever be found to arise from a comparison of the events of a given number of similar cases, treated in different methods. Thus in twelve patients, where the *crural* artery hath been tied, a certain proportion of this number will probably die: and in the same number who suffer amputation, it cannot be expected they should all recover. If now, for example, *four* out of the twelve who have had the crural artery

\* Med. Obser. and Enquiries, Vol. III. p. 106.

† Med. Comment. Edinb. Vol. II.

ties should die, and only *three* of those who have undergone amputation, it will be an argument in favour of the propriety of the former practice: because those who survive from this method, have their limbs preserved; and if the ligature fails, and the parts below should mortify, the patient may have some kind of hope of escaping at last by amputation. As far, therefore, as the success of a few cases can obtain, the surgeon will be authorized to recommend the operation for the aneurism of the crural artery, in preference to amputation\*.

ALTHOUGH it be certain there is a natural provision for the maintenance of the collateral circulation in general, when any of the principal arterial trunks are, by disease or accident, rendered inadequate to the purpose: yet it may be deserving attention to enquire, whether

\* It is, I fear, much more to be wished than expected, that surgeons would candidly acquaint the public with their ill success, as well as with their more fortunate practice; a proper line of conduct might then be had, by comparing the events of particular cases.

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we may not be deprived of this advantage, on account of some local peculiarities of the system. In the thigh the crural artery, at its superior part, detaches some very considerable branches, which are destined for the nourishment and support of the numerous large muscles of the limb; and these vessels anastomose, with others, from the inferior part of the trunk, in a sufficient degree to afford at least a probable supposition, that the circulation might be continued after the principal artery had been, by ligature, rendered impervious. But, in the *ham*, the *popliteal artery* seems very much deprived of these advantages; very few ramifications are here made, and those that anastomose with others from above the joint, are in a situation to be obstructed in their dilatation, by the pressure of the adjacent tendons and ligaments, rendered irritable by the operation, by the projection of the epiphysis of the tibia, and the condyles of the os femoris, communicating resistance to every salutary effort of expansion.

SHOULD the operation for the aneurism be attempted in the ham, the situation the patient must be in, will be particularly embarrassing to the surgeon: if the leg is *extended*, to put the tumour and the artery upon the stretch, the tendons forming the ham-strings will very much impede the future processes of the operation; and if the leg is placed in a state of flexion, there will be still more objections to the position. The mere difficulties attending any operation in surgery may, perhaps, appear not to be sufficient reasons to decline it; and by the adventurous and intrepid operator it may be conceived, that honour and reputation are to be acquired in proportion to the danger he hath incurred. But when to the difficulties attending any operation, is added the extreme hazard the patient must sustain, even from the most adroit performance of it, it surely becomes a subject deserving the attention of the most dextrous operator, and well worth the consideration of the most scientific and best informed practitioner.

WITH regard to the case of which we are now speaking (the aneurism of the *popliteal* artery) there is not, that I know, a single case upon record, where the operation for the aneurism hath succeeded. It hath been done several times within these few years, in our public hospitals; but I have not heard of any one case where it answered the intended purpose. In a conversation I had, two years since, with a very ingenious surgeon of London \*, upon this subject, he acquainted me that he had lately performed the operation, and with great hopes of success; but unfortunately, on the second or third day after, a profuse hæmorrhage ensued, of which the patient died, before he could get to his assistance.

WHILST the minds of surgeons of the first eminence are wavering with respect to the propriety of operating for the aneurism in the ham, every case upon the subject, recorded with fidelity, should be well received by the public; and, with a view to assist in clearing up a doubtful part of

\* Mr. H——r.

our profession, I shall close these remarks with the following case :

**I**N the year 1774, J—— J——, by trade a blacksmith, perceived a small tumour, deep seated in his left ham. After it had continued some time, he shewed it to an eminent surgeon, who gave him such directions as he thought necessary. The disease increased every day, and he applied for my assistance about a year after the commencement of his complaints. The tumour was then become very painful, and so large as to occupy all the space betwixt the ham-strings, and to descend downward within the heads of the gastrocnemius muscle. Applying my hand upon it, I discovered a very strong pulsation, and no doubt seemed to remain of its being an aneurism of the *popliteal* artery.

CASE  
XXXVIII.

IN consultation afterward with Mr. Harold and Mr. Parrott, a very eminent surgeon of Birmingham, in consideration of the difficulty of performing the operation

for the aneurism in this part, and of the very uncertain nature of the event, it was strongly urged to the patient to suffer amputation. The man desired he might have time to consult his friends upon the subject, who lived at a considerable distance. They, in answer, requested he would come to them, as some surgeons in their neighbourhood had proposed to cure him without the loss of the limb. He went to them, the operation for the aneurism was done, and the patient died on the third day\*.

\* Vide Ægineta, Lib. VI. Cap. 37. Marc. Aurel. Severinus de Effic. Medicinæ. Schenckius. Morgagni de Causis & Sed. Morb. Hildanus Cent. Observ. Mem. de l'Acad. Roy. An. 1712, 1733. Bonetus Sepulch. Anat. Philosoph. Transact. Abr. Vol III, VIII. De Haen de Aneurismat. Rat. Medend. Cap. XXX. Mem. de l'Acad. de Chirurg. Edinb. Med. Essays, Vol. II, and IV. Sharp, and le Dran's Operations. Med. Obs. and Enq. Vol. I, II, III, and IV. Med. Com. Edinb. Vol. II. White's Cases in Surgery. Treatise upon Sponge. Pott's Remarks on the Necessity of Amputation, p. 69. Ruysch. Obs. Centur.

OBSERVATIONS on COM-  
POUND FRACTURES.

SOME years have now elapsed, since Mr. Pott published his Remarks on Fractures and Dislocations, wherein he appears the advocate for *immediate* amputation in certain cases, which I shall more particularly describe hereafter. The same gentleman hath likewise favoured us lately with Observations on the Necessity of Amputation, &c. The mode of practice recommended in both these publications (if it may be considered as the standard by which the conduct of surgeons is to be regulated) seems to be, at least, the probable source of infinite mischief to mankind. Before I proceed farther I shall premise, that no one either has, or can have, a greater veneration for Mr. Pott's surgical abilities in general than myself; perhaps no man hath contributed so much to the improvement of surgery; and I acknowledge with gratitude the great ad-  
N 4 vantages

vantages I have received both from his writings and his lectures.

To enjoin an *immediate* recourse to amputation after an accident happens, when the restoration of the limb may be at most but *doubtful*, and the delay of the knife attended with no apparent danger, is leaving the unhappy patient too much to the mercy of the generality of surgeons, in a situation so truly delicate, as to require the abilities of the most sagacious practitioner to determine upon the necessity of the operation; and the loss of a limb is such a melancholy circumstance, that nothing but the most *indispensible* necessity should ever induce the surgeon to recommend it. Mr. Pott confesses \*, “ that the amputation of  
 “ a limb is an operation terrible to bear,  
 “ horrid to see, and must leave the person  
 “ on whom it has been performed, in a  
 “ mutilated imperfect state.”

AFTER having thus described the nature of this operation, he proceeds to de-

\* Remarks on the Necessity of Amputation, &c. p. 45.

send the propriety of it, because it seems  
 “ a contrary doctrine \* has, within a few  
 “ years, been boldly and industriously  
 “ propagated, not without some very in-  
 “ decent, as well as untrue reflections, on  
 “ the profession in general, and on those  
 “ who have the care of hospitals in par-  
 “ ticular: and, because” he is “ con-  
 “ vinced that such doctrine has been em-  
 “ ployed to the prejudice of mankind, by  
 “ covering ignorance and *timidity*, and  
 “ also for serving the base purpose of ma-  
 “ levence.” Mr. Pott further observes,  
 that “ mankind † are too apt to form  
 “ their opinion from events only: success  
 “ with many constitutes propriety, and  
 “ the failure of it is often very unjustly  
 “ set to the account of misconduct, or of  
 “ want of knowledge.”

WITH respect to this observation, I  
 profess I do not understand how mankind,  
 in general, are to judge of the propriety  
 of a surgeon's conduct, but from his suc-

\* Remarks on the Necessity, &c. p. 46. † Ibid.  
 p. 47.

cess: they cannot be supposed to know either the nature of his profession, or the principles upon which it is founded.

MR. POTT proceeds to reprehend the backwardness which appears in young surgeons to amputate. “A young \* practitioner,” says he, “at a distance from assistance, and thereby deprived of that support, may be afraid to put his character to hazard, by acting in such a manner, as, although it might justly intitle him to success, yet cannot command it. He may understand his art, but art is not infallible. He may be a very excellent surgeon, and yet be afraid to encounter the prejudices of some, and the malevolence of others.” Mr. Pott seems to have forgotten that formerly, upon another occasion, he had censured the young surgeon for too much attention to *operations*, and the little regard paid to the common, or practical parts of surgery †.

WHEN

\* Remarks on the Necessity of Amputation, &c. p. 47.

† The treatment of the fistula lacrymalis “hardly comes under the name of an *operation*, the great, and almost

WHEN young surgeons leave the country to attend the London hospitals, their pursuit seems chiefly directed to the operative part of surgery. In their conversation with each other, they ask what operations have been done, what to be seen, who performs them with the greatest expedition? &c. Is it then improbable that such an one, fresh from the school of St. Bartholomew, when he is called upon to give his assistance in a compound fracture, attended with extensive comminution of the bones, and laceration of the muscles; where the external wound is large, and horrible to the sight; under such circumstances, perhaps wishing to operate, encouraged by Mr. Pott's opinion and direction: is it, I say, at all improbable that he will condemn the limb to immediate amputation?

AFTER engagements at sea and upon land, where compound fractures are extremely frequent, have the surgeons of the

“almost *only object*, which they who come hither” (London) “from the distant countries, have in view.” Mr. Pott's preface to his *Observations on the Fistula Lacrymalis*.

army

army or navy ever betrayed the least reluctance to amputation? Has *timidity* marked their conduct in this respect? or have they, at any time, been accused with attempting to preserve too many legs and arms? On the contrary, it is no less a lamentable, than an indisputable fact, that, upon these occasions, the limbs of those unfortunate men, who have ventured their lives in their country's cause, have been frequently sacrificed to the indolence or barbarity of their surgeons.

AT a time, therefore, when 300,000 men are said to be employed in the service and defence of the British empire, is it either political or prudent, can it be consistent with humanity, that one of the first surgeons of Europe should give deliberate encouragement to the sanguinary business of mutilation?

MR. POTT observes, that "flat contradictions have no more authority than positive assertions:" I will therefore submit the reasons I have for dissenting from  
his

his opinion, to the consideration of himself, and the rest of my brethren.

ACCORDING to Mr. Pott, there are three points of time in compound fractures, in which amputation may become necessary.

FIRST, “ *Immediately*, or as soon as  
“ may be after the receipt of the injury.”

SECONDLY, “ When the bones con-  
“ tinue for a great length of time with-  
“ out any disposition to unite, and the  
“ discharge from the wound has been so  
“ long, and is so large, that the patient’s  
“ strength fails, and general symptoms,  
“ foreboding dissolution, come on.”

THIRDLY, “ When a mortification  
“ shall have taken such complete posses-  
“ sion of the soft parts of the inferior part  
“ of the limb, quite down to the bone,  
“ that, upon a separation of such parts,  
“ the bone or bones shall be left bare in  
“ the interspace.”

IN my humble opinion, there can be but one good reason why amputation should be performed in any case, viz. to preserve life. The first question, therefore, that I shall ask Mr. Pott is, Whether he amputates *immediately* after the accident to prevent sudden death? The answer must be in the negative; sudden death never happening in compound fractures, especially in those which he calls *hazardous*, or that may *probably* be productive of mortification, &c. and for which he advises the operation. If Mr. Pott does not operate to prevent *immediate* death, his intention must be to avoid those symptoms which he has stated in the two other periods, when, in his opinion, amputation may become necessary.

WE might therefore proceed to enquire, whether the operation could not be performed at those other points of time, with equal, or perhaps greater advantage, than at first;—when the *necessity* of the measure might be established by demonstration; but,  
before

before we do this, we shall make some remarks upon the first proposition.

WE will suppose the circumstances of a compound fracture are such, as to render the case, in Mr. Pott's judgment, *hazardous*; and he has declared his opinion, that (although the patient might *possibly* recover without the operation) yet he will have a much better chance of living by having the limb removed: we will also take it for granted, that the patient and his friends are convinced of the force of his arguments, and the operation is *immediately* performed: can Mr. Pott say that his patient is thereby exempted from danger; or that he is not almost in as dangerous a state as ever? I have seen the practice of several hospital surgeons, and have known their \* patients die where amputation had been performed in compound fractures, *immediately* after the accident.

COMPOUND fractures most frequently happen to the laborious part of mankind;

\* The relative proportion I cannot exactly ascertain.

to those who are strong and in health. Skilful surgeons have remarked, and experience hath confirmed their observation, that a state of high health is unfriendly to the success of amputation. People thus circumstanced are subject to more fever, pain, and irritation, in proportion to the strength of the muscles, and the force of the circulation. There is likewise a distress of mind, a melancholy despondency, inseparably connected with the *sudden* loss of a limb. Although it is proposed to amputate as soon as possible after the injury hath been received, yet some space of time must necessarily intervene, before the proper apparatus can be procured, and the business undertaken. In this interval pain is excited, and some degree of inflammation may well be supposed to possess the part upon which the operation is intended to be performed.

THE second point of time at which, Mr. Pott says, amputation becomes necessary, is “ when the bones continue for a  
 “ great length of time without any dispo-  
 “ sition

“ fition to unite, &c. and the patient,  
 “ from too large a discharge of matter,  
 “ &c. is supposed to be in danger of  
 “ dying.”

WHEN the patient is reduced to this deplorable condition; when the discharge of matter is great, or, from an absorption of part of it into the system, the blood is melted down; when all the symptoms are in a progressive increase from bad to worse (the most powerful antiseptics having been ineffectually employed, and the bones still remaining in a *state of disunion*;) if the patient does not part with his limb, the loss of his life must be the inevitable consequence. Should amputation be performed even in these circumstances, before the patient is *too much reduced*, the surgeon will have the satisfaction to think, that he has not performed the operation until the *necessity* of it was demonstrable: and (which is of much greater consequence) the patient will have a *better* chance of recovery, than if it had been performed

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*immediately* after the accident \*. I appeal to the experience of all surgeons, whether persons who have been previously reduced, either by pain, absorbed matter, colliquative diarrhœas, &c. do not generally recover after amputation; and whether the reverse of this proposition is not true of those, who lose their limbs soon after the injury hath happened.

DOES Mr. Pott, therefore, advise amputation *immediately* after accidents, to anticipate a period wherein that business might be undertaken with more apparent safety to the patient, and greater satisfaction to the surgeon? This supposition militates so strongly with the sound judgment which

\* Mr. Pott, after censuring Van Swieten for advising us to wait *two or three* days, until antiseptics might be tried in these cases, before we proceed to amputation; observes, “that, by waiting that time, the patient will “have very little chance indeed from the operation.” But that it is not *always* so dangerous to wait a *few days*, we may fairly conclude, when Mr. Pott himself acquaints us, that, in the second stage of a compound fracture, amputation may become necessary, “when the bones continue for a *great length of time* without any disposition “to unite,” &c.

characterises

characterises Mr. Pott's works in general, that it must be totally inadmissible.

COMPOUND fractures, I must allow, are observed to terminate very unfavourably in public hospitals; patients cannot be supposed to have the benefit of good air, where wounded people are too often crowded in the same wards, with others who are dying of malignant fevers. But I have often thought there must have been some other cause besides contaminated air, to produce the difference in the events of compound fractures in the country, and in public hospitals. When tension hath taken place in the limb, which it generally does, more or less, it is a maxim in many hospitals to use emollient relaxing poultices, warm or hot, to apply which, it is necessary that the limb be lifted up at each time of dressing; by this motion the bones rub against each other, and wound or irritate the muscles: and this business is sometimes done by the nurses, that the limb may be clean for the inspection of the surgeon. When the poultice is removed, a

warm fomenting cloth is put on, and thus the fore is exposed to the air, perhaps an hour; and, before another cataplasm is applied, the fractured limb must be once more disturbed.

WHEN the whole limb in a compound fracture is much swollen, painful, inflamed, and indurated, what are the curative intentions? The answer is, to get the parts unloaded by a resolution of the inflammatory tumefaction, and *thereby* to procure an easy digestion of the wound, and to avoid the formation of abscesses under the skin, or in the interstices of the muscles. Warm emollient applications relax the vessels; encourage, therefore, a greater influx of juices: in consequence of both, they *increase* tumefaction. Digestion of wounds is best procured when the circumjacent parts are *least* swollen. Warm emollient applications therefore, in this case, retard the digestion of the wound. At the same time, also, that the surgeon (if he pursues this kind of practice) is counteracting the curative intentions, he is doing

ing

ing every thing in his power to encourage a general suppuration, and reduce the case to the very state so well described by Mr. Pott, and in which it may be necessary to amputate the limb, to prevent the patient from dying, in consequence of such extensive suppuration.

THE third stage of a compound fracture is said to be, when “ a mortification shall have taken such complete possession of the inferior parts of the limb, that, upon a separation of the morbid from the sound parts, the bone or bones shall be left bare in the interspace.”

OF all the different kinds of mortification, none might be supposed to be so truly local, or so little disposed to spread, as that occasioned by external violence. It is very easy to imagine, that, from the fall of great weights upon the limbs, and by the operation of various other causes, the structure of the parts may be so much destroyed, as to make mortification not

only a probable event, but an unavoidable consequence. It is very frequently the case, even in mortification from internal causes, that the efforts of art produce a stop to the disease. How much more likely is this event to happen, when external violence hath been the cause? Accordingly we find, that sometimes the skin, muscles, tendons, and ligaments are destroyed to the bones, which, upon a separation of the mortified parts, are left quite bare. In some of these cases, nothing else may be necessary but to saw through the bones.

BUT Mr. Pott observes, “ that some-  
 “ times the progress of the disease is  
 “ so rapid, as to destroy the patient in a  
 “ short space of time.”

THOSE persons who have been destroyed by a spreading gangrene, from external injury, must have had very bad habits; and it therefore still remains a question, whether early amputation could have saved them.

them. Upon the whole, then, I have ne-  
deavoured to prove,

FIRST, That amputation should never  
be performed *immediately* after compound  
fractures have been received, in those cafes,  
which appear uncertain, or *hazardous*  
only.

SECONDLY, That the second point of  
time in which that operation is said to be  
neccessary, would not so frequently hap-  
pen, if a proper method of treatment  
had been pursued; and if it should oc-  
cur, the patient will have a better chance  
of living than if it had been performed at  
first: and,

THIRDLY, That if a mortification  
should unexpectedly supervene, it will  
not, of *necessity*, prove fatal.

IN the course of my practice I have not  
hitherto, in a single instance, had occa-  
sion to amputate for a compound frac-  
ture, although I have been concerned in

some cases where, upon Mr. Pott's hypothesis, the operation would have been deemed necessary; yet not only the lives of the patients, but the use of the injured limbs have also been preserved\*.

I HAVE never, indeed (when I have attended from the beginning of the case) had a patient in that state from a compound fracture, where it might even have become a question, whether amputation should have been performed, to obviate the effects of too large a discharge of matter, or of its absorption into the system: and this success I attribute very much to the early use of cold and repellent applications, and avoiding all warm, emollient, and relaxing to-

• If it was necessary to amputate for a compound fracture so frequently as Mr. Pott would make us believe, it must appear very extraordinary that the late Mr. Gooch, in a very extensive and long continued practice, never cut off a limb on such an occasion. See his last Volume, p. 82.

Monf. Boucher has demonstrated, by a variety of instances, that cases of the most apparently dangerous nature, and where the bones have been fractured in their articulation, may be cured without amputation. Mem. de l'Acad. Roy. de Chirurg. Tom. II. Observ. sur des Playes d'Armes, à Feu, p. 287 & 461.

pics;

pics; whereby the suppurative process hath been kept within due bounds.

As soon as I am called to a case of this kind, if no peculiar circumstance forbids, the leg (for instance) is placed upon its outside, in the common inflected position\*. If the superior portion of the fractured tibia protrudes through a small wound, and there is difficulty in its reduction, it will invariably be found to arise from the bone being girded by the integuments. Instead, therefore, of fatiguing the patient by an unnecessary and fruitless extension, the surgeon should divide with a bistoury, that part of the skin

\* Many of what are called the *modern* improvements in surgery, may be found in the writings of the ancients. The practice of placing limbs, when fractured, in such an easy inflected posture as they usually take in a state of rest or sleep, is enjoined both by Hippocrates and Galen. "Quibus in figuris quum otiamur, partes habere consuevimus, hæ in curationibus eligendæ sunt." And afterward, "Itaque si homines otuari consideraveris, plerumque manus (e. g.) inter summam extensionem, & extremam flexionem non plane medias reperiens, sed quæ ad extensionem propendeant." De Med. Officin. Text. 21. Chart. Tom. XII. p. 87.

which

which appears to form the stricture. But if the protruded part of the bone should be fractured very obliquely, or with such sharp angles as would probably, when reduced, either wound or considerably irritate the muscles, it will, in general, be adviseable to saw it off. It sometimes happens that the tibia is very much shattered and comminuted; in this case, if the fragments are loose, they should by all means be removed; and if the external wound is not large enough for this purpose, it may very safely be dilated. But if the intermediate fragments are large, and firmly attached to the muscles, &c. the attempt to remove them may possibly be attended with much inconvenience, and is therefore to be avoided.

AFTER the wound of the skin hath been enlarged, or the protruded portion of the bone removed by the saw; when the loose fragments have been extracted, or suffered to remain; or as either of these methods may be rendered more eligible than the rest, by the particular circumstances

stances of the case: it will, in general, require but a small degree of extension to reduce the limb to its natural form. The wound is then to be dressed; and, whether it be small or large, no application seems, in general, so proper as dry lint, which should be suffered to remain on the part (at least not forcibly removed) until it is loosened by digestion, or some other cause.

THE next process, indeed the most necessary of any, is to endeavour, by some topical application to the whole limb, to counteract that determination of fluids into the parts which is always, more or less, the effect of contusion, pain, and irritation. In proportion to the degree of inflammation, and extent of tumefaction, we may form a fair conjecture of the ensuing danger from excessive suppuration, which (though frequently a fatal attendant on compound fractures in public hospitals) I have very rarely found reason to apprehend in the country.

## CASES AND REMARKS

I HAVE before attempted to prove, that all warm relaxant applications are very pernicious, when tension hath already taken place in the limb; and if so, very little need be said to shew the impropriety of their use, when the design of the surgeon is to *prevent* inflammation, to resist the dilatation of the vessels, and thereby restrain the consequent tumefaction and suppuration within as small bounds as may be. I do not know any better method to answer these intentions, in general, than to apply a very soft napkin, well soaked in the saturnine water of Goulard, *cold*, all over the injured limb. As soon as it becomes dry, a fresh lotion should be poured on, and this should be continued during the first days, or until all inflammatory appearances have subsided.

IT sometimes happens, that one or more of the deep-seated veins are lacerated, and if the wound of the integuments is small, or becomes choaked up with coagulable lymph, the extravasated blood will force its way betwixt the skin and muscles.

muscles. When this case occurs, or whenever tension happens from an internal hæmorrhage, no better application can be used than a solution of crude sal ammoniac in vinegar, with which, the parts should constantly be covered, *cold* \*.

DURING the time the lotion is applied, it does not seem proper (at least it will not be convenient) to use any bandage over the napkin; and, if there is a great degree of tension, it may perhaps be suggested, that the use of splints in some cases may be altogether unnecessary; because, under that circumstance, the integuments being very tight, will by their pressure secure the situation of the fractured bones. But if the limb is exempt from tumefaction, and splints are not used, the patient will be subject to the very severe shocks, which those who experience these misfortunes so feelingly describe. In either case it seems very proper to apply one splint under the limb,

\* I have had an opportunity of seeing, in more than one instance, the effects of warm applications in such cases, and it was astonishing how much the tumour was increased by them.

which

which will form an even surface for it to rest upon †. If it be thought unnecessary to apply the upper splint in the day, it should be always used at night; because it is principally at that time the patient suffers those very pernicious collisions of the bone, which, from a state of the most perfect ease, will often occasion severe pains for several hours. These shocks commonly happen soon after the patient has fallen asleep; and from thence I suspect, they arise from an attempt to turn the body, whereby the superior part of the fractured bone is suddenly displaced: the use of splints therefore, during the night, cannot be dispensed with.

† The splints I use in compound fractures are the common deal ones, recommended by Mr. Pott; and they are made long enough to project somewhat beyond the extremities of the fractured bone. By keeping the joints above and below the injured part at rest, they answer all the purposes that can be expected from splints, without making any improper pressure upon the wound, or its circumjacent parts, which those must ever be liable to that are contrived to fit the leg, and be in contact with a great part of its surface. They should be lined with flannel, and well padded with combed wool.

THE next step, which is usually taken in order to prevent tension, &c. is a recourse to the lancet. But if the surgeon is called upon soon after the accident, he will commonly find his patient distressed in mind, his muscles in a tremulous state, his body cold, and his pulse weak: it may, perhaps, therefore admit of a question, whether bleeding should take place at this period? With regard to my own practice, I never use the lancet under such circumstances; but defer it until either a painful throbbing in the limb, or an accelerated, hardened pulse, indicates its propriety; and then, it should seem, blood may be advantageously taken away, in as large a quantity as the nature of the symptoms require.

It is of very great importance to empty the intestinal canal as soon as possible, and this intention would be best answered by clysters; but as the position the patient is obliged to be in, will not, in many cases, admit of their use, some kind of opening medicines must be given by the mouth; and

and for this purpose a solution of manna and Rochelle salt may be as proper as any other. It should be given and repeated until it produces the desired effect; or, if it should be slow in its operation, a few grains of calomel will probably succeed.

AFTER a proper application hath been made to the injured limb; when the patient has been bled (if it appears necessary) and his bowels have been opened: the next desirable object will be to ease or mitigate the pain. In every case of this kind, pain should be relieved with the most studious care; for as inflammation occasions pain, so pain, in its turn, increases inflammation: and thus the cause and effect are perpetually augmenting each other. In *one view*, therefore, the antiphlogistic plan seems admirably calculated to answer such purpose; but this alone will not succeed, when the parts are in a very irritable state, without the use of opium. At whatever time, or upon whatever occasion, opium is given with an intention to remove pain, the

the dose should always be proportioned to the degree of irritation it is intended to counteract. When the nerves are violently affected with pain, it requires, in general, a much larger dose of opium than is commonly given, either to obtain ease, or procure sleep; without which the medicine cannot properly be called anodyne\*. I believe it is a very common error to give opium upon these occasions in too small quantities to produce any good effect. It should be given in a large dose, and repeated until it hath answered the intention of the prescriber, otherwise it would be much better not to administer it at all †.

IF the mode of practice here recommended is put in use early, it will very seldom happen that any considerable tension will take place; and if it should, I

\* "Anodyna vocant, quæ somno dolorem levant." Cels. Lib. V. Cap. 25. p. 278.

† The dose I frequently order is the following:

R Tinct. Theb. a gutt. XL ad LX.

Vin. antim. gutt. XXX.

Sp. mind. ʒ fs.

Aq. font. ʒ vi. m. f. haustus, urgente dolore sumendus.

am persuaded a perseverance in the same plan will remove it.

WHEN the inflammatory tumefaction hath subsided, and the digestion of the wound taken place, the limb may be covered with the ceratum saponaceum, spread on linen, leaving an aperture for the wound, which should then be dressed every day with a pledget of some soft digestive, and the whole secured with the foliated or many-tailed flannel bandage. To keep the bandage clean, and prevent the necessity of changing it, a piece of oil-cloth should be placed betwixt it and the dressings, and the pledget over the wound may be covered likewise with a bolster of tow, or linen, to absorb the discharge.

I HAVE before observed, that placing the limb upon its outward surface \* is, in general,

\* I once saw a very remarkable instance of the usefulness of the relaxed position in a compound fracture, where, after the reduction of the bones, the leg at first was laid straight. The surgeon concerned was surpris'd, when he removed the dressings, to perceive the superior portion of the bone protruded through the wound, in a great

general, the best way of disposing it; as, in that case, the greater part of the muscles surrounding the fractured bones are, as much as they can be, relaxed: but I have found some inconvenience from it.

IF the fracture happens in the superior part of the leg, near the knee-joint, and the leg is much inflected, the rectus, crureus, the vastus externus, and internus muscles act so strongly upon the patella and its ligament, that the superior fragment of the tibia connected with them will every day be found displaced, especially if splints are used, which are calculated to secure the *leg* only. To obviate this inconvenience, there must either be a change of position in the limb, or (which is better) the parts may be conveniently secured by particular splints, which shall be described hereafter.

great a degree as at first. In the course of ten days it was reduced several times, and as often found displaced, until it was proposed to lay the limb upon its exterior surface, in the relaxed position. This change of posture *only*, without any extension, reduced the bone, and the cure was accomplished without any further difficulty, or subsequent displacement.

IF the thigh is fractured, and placed upon its outward surface, if particular attention is not given that the patient inclines his body, and rests upon the hip of the same side, when he gets up, a very considerable deformity will be experienced, and his foot and toes be turned outward. Let the fracture be what it may, if the limb is placed on its outside, no pillows should be used; and, as a plain surface must prove of advantage, the patient should lie upon a mattress.

FOR more minute directions respecting the management of fractures, whether simple or compound, I refer the reader to Mr. Pott's \* treatise, which (those parts only excepted from which I have taken the liberty to dissent) is by much the best I have seen upon the subject.

HAVING now described the method of treating compound fractures, which appears to me the most eligible, I shall subjoin a few histories, wherein its application to particular cases will be proved to have been attended with success.

\* Remarks on Fractures and Dislocations.

An ACCOUNT of the CURE of a COMPOUND FRACTURE of the LEG, where, from the injury the parts received, amputation had been judged expedient.

I WAS sent for to Hawkesbury, to assist Messieurs Bindley, Barber, and Welton, surgeons, in the amputation of a leg. The patient was a young man, of a robust and healthy habit of body. On the preceding day, by the breaking of a rope, he had the misfortune to fall from the height of sixty feet, to the bottom of a coal-pit. From this accident the lower jaw was fractured, and general marks of contusion were visible in his face and head. The fibula of the *right* leg was fractured, and the tibia having been forced from its perpendicular bearing on the astragalus, was dislocated. The *left* leg was literally shattered to pieces; the limb appeared half a foot shorter than the other, and there was a very large lacerated wound, through which the superior portion

CASE  
XXXIX.  
Oct. 9, 1776.

tion of the tibia protruded. Under this there were several portions of the bone, separated from the main body, and some of them, by their points, had been driven into the muscles. The tibialis anticus muscle was transversely torn, quite through its whole substance.

UPON the whole, the circumstances of the case appeared so terrible to the gentlemen concerned, that the necessary apparatus for amputation was provided. I objected to the operation for many reasons; but the argument which appeared to have most weight with them was, that the patient, from the effects of such complicated mischief, would probably die, and thereby bring disgrace at least upon the operation, if not upon the persons concerned.

THE irregular portion of the tibia, which projected, was sawn off; the intervening loose fragments were extracted; the wound was dressed with dry lint, and the limb placed in as easy a position as the circumstances of the case would admit. The pulse

was kept down by bleeding; the intestinal canal was opened by lenient cathartics; and a strict antiphlogistic plan pursued during the existence of inflammatory symptoms. By the use of the bark, when they were removed, by abstaining from all warm emollient and relaxing applications, and by the diligent attendance of Mr. Bindley, the patient not only recovered his health, but the use of his limb (which otherwise might have been sacrificed to the *supposed necessity* of amputation) was preserved.

IN this case, although four inches of the whole substance of the tibia were removed, yet the limb became more serviceable than the other. I saw the patient the summer after the accident, and at that time he was using the cold-bath at Newnham, on account of a weakness which had continued from the dislocation of the right ankle.

A COMPOUND FRACTURE  
of the LEG, *supposed* to require am-  
putation from a violent hæmorrhage.

CASE XL.  
June 4, 1773. **A** Middle-aged man, riding on the full gallop, and turning the corner of the road betwixt Lutterworth and Market-harborough, came against the pole of a carriage with such impetuosity, that he was thrown to the ground. By the violence of the fall his leg was fractured, and the superior portion of the tibia forcibly pushed through his boot into the road. A large discharge of blood immediately ensued, and the man was conveyed to Lutterworth, and placed under the care of Mr. Jervis. Appearances were so unfavourable on the third day after the accident (the hæmorrhage still continuing) that Mr. Jervis apprehended the amputation of the limb would have afforded the best chance of recovery.

AT this period I found the patient much reduced; the wound was plugged up with  
coagulable

coagulable lymph, through which, however, the blood still found its way copiously; and there was so great an extravasation betwixt the skin and the muscles, as to render the whole limb very considerably tumefied.

IN consultation it was agreed that the leg should be covered with cloths, well saturated with a solution of crude sal armoniac in vinegar, applied *cold*; that he should take the Peruvian bark, joined with nitre; and an anodyne be administered in the evening. From the time the cold and astringent application was made, the hæmorrhage ceased; the extravasated blood was by degrees absorbed; the tension abated; and all the bad symptoms diminished. The patient afterward not only enjoyed perfect health, but the use of the fractured limb was happily restored.

A COMPOUND FRACTURE  
of the LEG, attended with very  
alarming appearances.

CASE XLI.  
March 29,  
1776.

**M**R. W——, of Aftley, in the county  
of Warwick, by the fall of a cow on  
the outside of his left leg, had both the  
bones fractured near the middle; and  
through a small wound, about half an  
inch from the internal edge of the tibia,  
a large stream of blood proceeded. Four  
hours after the accident happened, I found  
that a coagulum of blood had stopped up  
the external wound, and the divided vessel  
had bled internally to such a degree, that  
the leg was distended to a most enormous  
size. The skin was every where removed  
from the muscles, by the vast quantity of  
blood which had insinuated itself into the  
cellular membrane.

THE pressure the parts sustained pre-  
vented him from having any degree of  
pain; and he complained only of a numb-  
ness of the foot, which appeared of a dark  
purple

purple colour. A surgeon, who had been sent for from Nuneaton, had bled the patient before my arrival. The curative intentions appeared to be, to promote the absorption of the blood already extravasated, and at the same time to prevent the wounded vessel from pouring out any more. With a view to answer these purposes, the parts were fomented cold, with the extract of lead diluted in vinegar; the leg was placed upon its exterior surface, in the relaxed position; and Mr. Sharp's splints were employed to secure the situation of the extremities of the fractured bones. A solution of sal Glauberi in water was given, and repeated at proper intervals, to procure stools.

ON the ensuing day the tension was much diminished, but the leg was covered with vesications. Some of them contained lymph only, while others had a bloody fluid, which appeared to have transfused through the cutis: the blisters were all cut. The patient having some degree of fever, was ordered to take a saline draught

draught every four hours; and the ceratum saponaceum, spread on linen, was applied to the whole surface of the leg.

ON the fifth day the limb was much reduced in its size, but the skin where the blisters had been assumed a dark purple colour. At this time we entertained hopes that all danger from fresh hæmorrhage was over; and therefore ventured to foment the limb with the common fomentation *warm* \*, to three quarts of which was added an ounce of crude sal armoniac, dissolved in distilled vinegar. The ceratum saponaceum was re-applied after the fomentation, and the saline draughts were continued, to each of which was added a scruple of the powder of bark.

ON the seventh day appearances, in general, were favourable; and although the skin of the fractured limb still had a sus-

\* In extravasation of blood, after the use of *cold* applications, and when the process of absorption hath appeared to have been suspended, I have sometimes used *warm* ones with advantage.

picious aspect, yet there was an equable warmth throughout the whole, and the tension was greatly diminished. At a certain hour every day a fever arose, which we imputed to the absorption of extravasated blood.

ON the tenth day, whilst we were using the warm fomentation, there happened a considerable hæmorrhage from the wound; we therefore substituted *cold* for warm applications; on the next day he bled again, but not in so large a quantity. Thirty drops of elixir vitrioli were then added to each dose of the cortex, and he took frequently a tea-cupfull of the tinctura rosarum. On the twelfth day there was a large sanious discharge from the wound, which continued the space of a week. It decreased afterward; and the matter was prevented from lodging in the interstices of the muscles, by the application of proper compresses. The bark was continued until all appearance of danger was over: the patient gradually recovered a good state of health, and the use of the fractured limb.

A COMPOUND FRACTURE  
of the FORE-ARM, combined  
with a dislocation of the os humeri.

CASE XLII. **T**HE servant of ——— Welsh, Esq; of  
Jan. 15, 1779. Dublin, galloping after his master's  
carriage, was thrown from his horse, upon  
the London road, two miles from this  
city, with such violence, that part of the  
bones of the fore-arm was forced through  
the sleeve of his coat and furtout. He was  
brought to this town, and put under the  
care of Mr. Harrold and myself.

THE os humeri was dislocated, and the  
head of the bone perceived to lie in the  
axilla. The fracture of the radius and ul-  
na was attended with comminution, and  
there were two wounds of the skin,  
through one of which a portion of the ex-  
tensor carpi ulnaris muscle was protruded,  
in a lacerated state. The inferior wound  
was situated near the part where the supe-  
rior edge of the pronator quadratus is in-  
serted into the ulna.

THE

THE dislocation was reduced by bending the fore-arm, and applying the extending force to the os humeri *only*. The arm, after being well fomented with the saturnine water of Goulard cold, was wrapped up in cloths wetted with the same, and particular directions were given to keep them in a moist state, by pouring some of the lotion upon them frequently. Before the use of this, the patient's arm was in great pain, and swelling and inflammation were coming on; it was very pleasing to see the good effects of the cold astringent application. By means of this, and an opiate in the evening, the patient slept several hours in the night, and the next morning complained of very little pain.

THE swelling was inconsiderable, and the skin of the arm very little discoloured: an opening medicine was ordered in the morning, and an anodyne in the evening. The same external application was continued; and a pledget spread with common digestive ointment applied to the wounds.

Jan. 16.

Although

Although the opiate was by mistake omitted, the patient slept very well in the course of this night, and on the succeeding day he had neither pain, fever, or indeed any particular complaint.

THE lotion was applied constantly the first week, during which time all those symptoms which are said to attend compound fractures were prevented, and the wound digested well. On the eighth day, when all inflammatory danger was apprehended to be over, the cerat. saponac. was applied to the arm, and the situation of the fractured bones secured by the foliated flannel bandage and splints. At the expiration of fourteen days both the wounds were healed; and at the end of a month the patient was thought sufficiently recovered to undertake a journey to Ireland.

IN this case, twelve quarts of the saturnine lotion were employed the first week.

An ACCOUNT of a COMPOUND  
DISLOCATION of the ELBOW-  
JOINT.

J OSEPH TYSAL, playing at leap-  
frog, fell violently upon the palm of  
the right-hand, by which accident the  
elbow-joint was dislocated. Examining  
the situation of the parts soon after the oc-  
currence, I perceived the olecranon dislo-  
cated backward and upward, behind the os  
humeri. There was a transverse wound,  
more than two inches in length, on the  
inside of the arm, through which the *in-*  
*ternal condyle*, and part of the articulating  
surface of the *os humeri*, were protruded.  
The capsular ligament of the joint was la-  
cerated, which, together with the tendon  
of the *biceps muscle*, appeared externally  
through the lips of the wound.

CASE  
XLIII.  
Sept. 4, 1773.

HAVING placed an assistant, with his  
hands crossing upon the superior part of  
the arm, to preserve a proper resistance, I  
ordered another to make a gradual exten-  
sion

sion at the inferior part of the fore-arm. When I thought a sufficient force had been used in this direction, I suddenly bent the fore-arm inward and toward the breast, and the dislocated bones were immediately reduced.

FROM the injury the parts had sustained; from the laceration of the capsular ligament; from the protrusion of part of the articulating surface of the joint, and its exposure to the air: I apprehended that an anchylosis must have been the most favourable termination of the case. Upon the supposition, therefore, that this event would happen, and to prevent the patient's arm being totally useless to him in his employment as a weaver, after having dressed the wound superficially with dry lint and sticking-plaister, I bent the fore-arm, and placed it in a position in which it described a right angle with the os humeri. To guard against an inflammation, and consequent suppuration in the joint, the patient was bled, ordered opening medicines, and an opiate at bed-time; the

arm was covered with cloths soaked in a solution of crude sal armoniac in vinegar, cold. By these means he suffered as little, and was equally exempt from pain, as if the case had been a simple dislocation. The external wound healed by (what surgeons call) the first intention, and the expected anchylosis did not take place.

ALTHOUGH there was, for some time, a considerable interruption to the perfect flexure of the joint, yet in the course of twelve months the boy could work at the loom, and the injured arm was nearly as serviceable as the other.

I LATELY made an enquiry concerning this patient, and was informed that he recovered the perfect use of the dislocated arm, and was then serving in the king's army in North America.

A FRACTURE \* of the LEG, in which the epiphysis was separated from the tibia.

CASE  
XLIV.  
May 4, 1778.

A Surgeon of the army, met with the above accident by a fall from his horse, in the park contiguous to this town. Before I saw him the case was supposed to have been a luxation, as there was a considerable external projection of the bones of the leg, just beneath the knee joint, probably occasioned by his attempting to walk after he had received the injury. The parts were in great pain, and the irritation excited a considerable degree of fever.

By a slight pressure on the outside of the leg, the fractured tibia was reduced; the parts were covered with the ceratum saponaceum, sustained by a foliated flannel

\* Boerhaave has improperly arranged this case in the class of luxations, Aphorism CCCLX. Ægineta has well defined a luxation: "Elapsus articuli ex proprio cavo in alienum, à quo motus arbitrarius impeditur." Lib. VI. Cap. III. pag. 101.

bandage,

bandage, moderately tight; the leg was placed upon its outside, and a *little* inflected only, that the ligament of the patella might not be too much upon the stretch. A strict antiphlogistic regimen was recommended, and an opiate given in the evening. The pain of the knee was so intense during the night, that the anodyne produced no effect. In the morning of the 5th the fever increased, and the leg, from the knee to the ankle, was extremely tense, painful, and discovered a great disposition to inflammation. The skin was stained with extravasated fluids, of various shades, from a brown yellow, to a livid complexion.

IN this disagreeable situation of things, fourteen ounces of blood were taken from the arm, an ounce of Rochelle salt was given soon afterward, and, when it began to operate, a saline draught with nitre was repeated every three hours: thirty-five drops of laudanum were given at night. The tight integuments then sufficiently sustaining the fractured bone, the flannel

apparatus was difused. The parts were constantly bathed the whole day, sometimes with the vegeto-mineral water of Goulard, and sometimes with a discutient and anodyne fomentation, composed of a decoction of poppy-heads, to which was added some crude fal armoniac diffolved in vinegar. At night the ceratum saponaceum was again applied.

June 6 and 7. THE symptoms were much in the same state, with a little variation in the colour of the skin, which was then become darker. The same plan was pursued, his bowels were very well opened by the Rochelle salt, and the quantity of thebaic tincture in the night draught was increased in proportion to the degree of pain.

— 8. THE febrile symptoms were almost gone, and the tension of the leg very much reduced.

— 10. HE continued to mend; but, notwithstanding the opiate was not omitted in the evening, he had but little rest, on account  
of

of the collision of the fractured bone. There was a necessity, therefore, of applying some apparatus that would secure the situation of the tibia, and at the same time prevent any motion in the knee-joint. These purposes were extremely well answered by a particular kind of splints, contrived by Mr. William Sharp, for a similar case\*.

FROM this time there happened no particular circumstance worth relating: the patient by degrees recovered the use of his leg; but there was, for some time, a considerable stiffness in the knee-joint.

\* See Plate II.

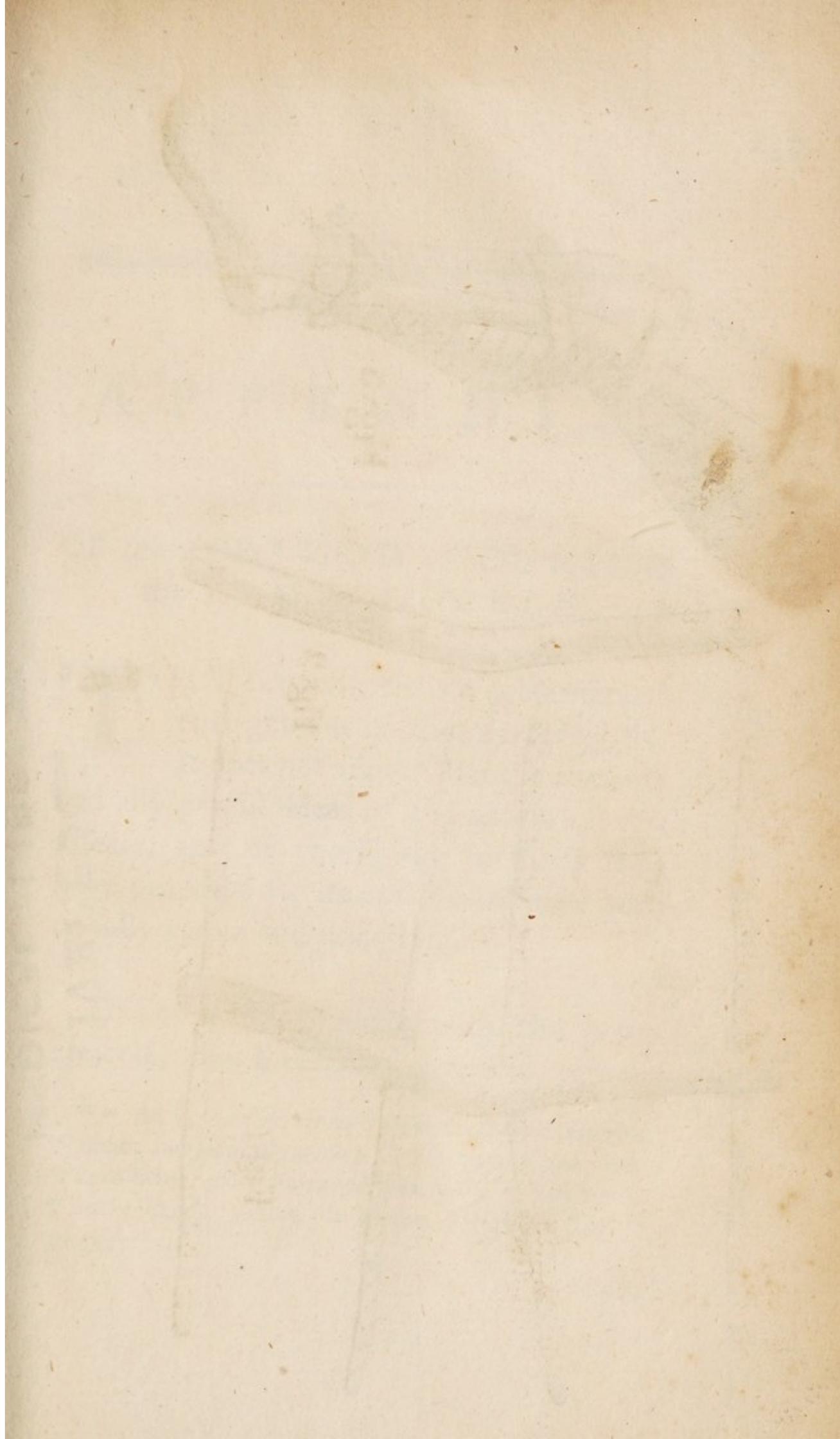
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APPEN-

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APPENDIX



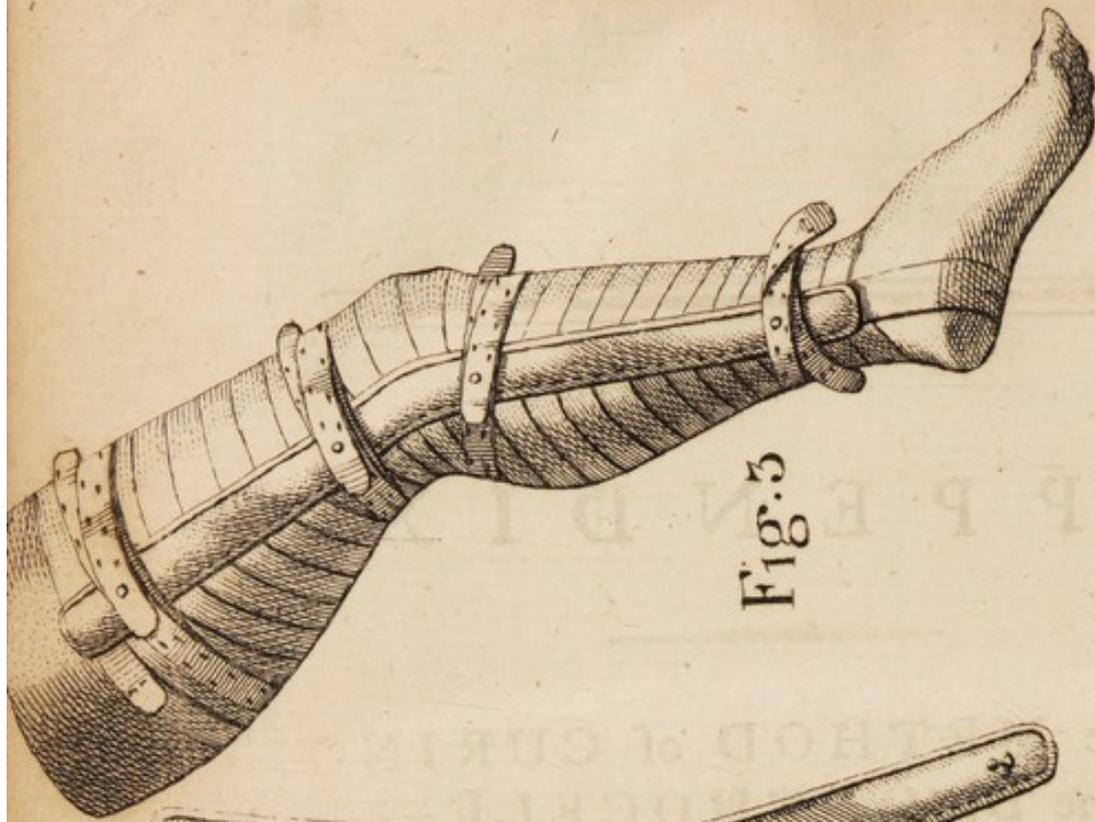


Fig. 5

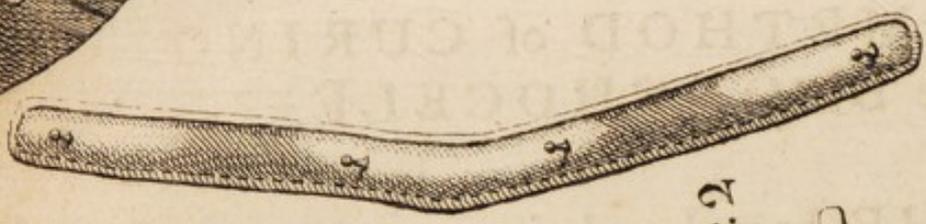


Fig. 2

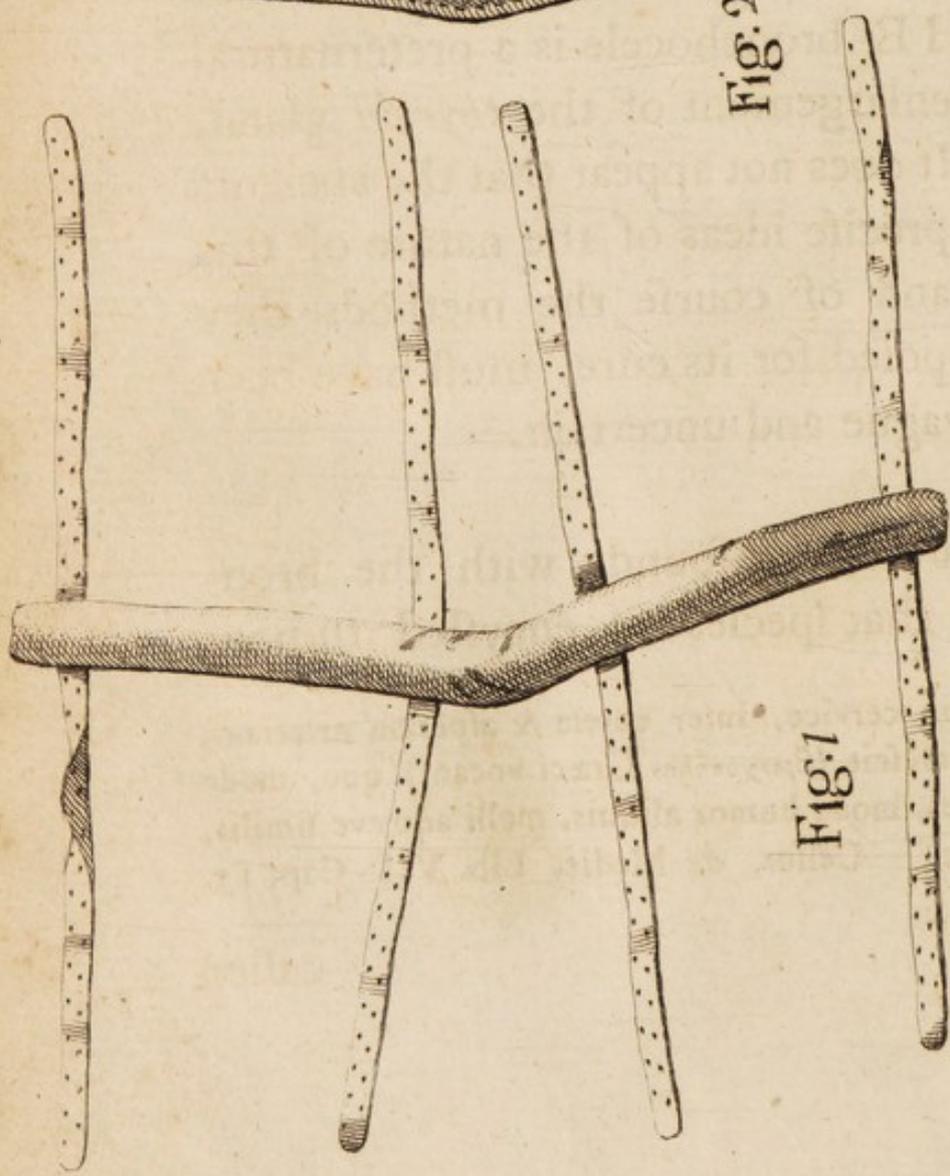


Fig. 1



LIVERPOOL  
MEDICAL LIBRARY

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## A P P E N D I X.

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### Of the METHOD of CURING the BRONCHOCELE.

**T**HE bronchocele is a preternatural enlargement of the *thyroid* gland. It does not appear that the ancients had any precise ideas of the nature of this disease, and of course the methods they have proposed for its cure, must have been equally vague and uncertain.

CELSUS \* confounds with the bronchocele, that species of encysted tumour

\* " At in cervice, inter cutem & asperam arteriam, tumor increfcit (*βρονχοκήλην* Græci vocant) quo, modo caro hebes, modo humor aliquis, melli aquæve fimilis, includitur." Celsus, de Medic. Lib. VII. Cap. 13.

called by surgeons meliceris, and recommends the application of a caustic for its cure; but adds, the method by excision is more expeditious.

ALBUCASIS seems to have embraced the same error, but is more cautious of the knife, and relates a case, where an ignorant operator, in attempting the excision of a bronchocele, divided the large vessels of the neck, and killed the patient.

PAULUS ÆGINETA \* describes two species of bronchocele, one of which, he says, is occasioned by fat, and the other, aneurismatic: for the relief of the first kind he advises the use of the knife.

WISEMAN and Freind † have confounded this disease with the scrophula; the latter expressly declaring, that when the disease occupied the *thyroid gland*, it is not properly a bronchocele, but a *struma loli*. Wiseman, on the other hand,

\* Paul. Æginet. de Asperæ Arteriæ Tumore, qui Bronchocele dicitur.

† History of Physic.

denominates a tumour *bronchocele*, which was evidently strumous, occupying part of the cheek, and extending round the root of the ear\*.

THE moderns have not described this disease with the precision that might, in the present improved state of surgery, have been expected. Heister, and others who have copied from him, have fallen into the error of Wiseman and Freind, and have confounded the bronchocele with scrophulous swellings, situated in the lateral and anterior parts of the neck.

THERE cannot, certainly, be a more desirable thing in the pursuit of medical or chirurgical knowledge, than to ascertain with all possible exactness the real nature of diseases; to distinguish them from each other with certainty; and to reduce the method of treating them to as great a degree of simplicity as may be. I can recollect but a few instances in which the bronchocele was accompanied with other

\* Chirurg. Treatises, fol. Edit. p. 279.

scrophulous

scrophulous appearances. It is true, the scrophula has a great tendency to fix upon glands; but the thyroid gland differs in its structure as much from those that are affected by the scrophula, as the liver does from the kidneys; and there is just as much reason to think a man *must* have the jaundice, because he has a nephritis, as to suppose the bronchocele must be strumous, because its seat is in the thyroid gland, and because glands are found to be diseased in the scrophula.

THE scrophulous virus is generally discovered to have produced its effects in the road of absorption, and its seat, of consequence, is mostly in the *lymphatic glands*. The lymphatic system, by the industry of modern anatomists, is now very well defined; by filling the tubes with quicksilver they are discoverable to the eye, and the lymphatic glands have been clearly demonstrated. The thyroid gland differs essentially in its structure from the lymphatics. The large proportion of arterial blood  
which

which this gland hath, renders it probable that it secretes some fluid, but its excretory ducts (if there are any) have never yet been discovered; and until the use of this part is better understood, the cause of the bronchocele may remain unknown.

VARIOUS conjectures, indeed, the apparent result of whim and caprice, have been formed concerning the cause of this disease. Thus the air and waters of a country, the drinking of very cold water, or that in which snow hath been dissolved, straining, or lifting great weights, have been, with great confidence, pronounced the cause of the bronchocele. Lifting weights must be the common lot of the inferior class of mankind in every country; and it is difficult to say why the Laplander, who drinks nothing but snow-water the greatest part of the year, should not be equally subject to the complaint as the inhabitants of the Alps and mountains of Tyrol, where the bronchocele is so common, that it is esteemed a personal advantage.

tage \*. Science in this country being now divested of theoretic chimeras, will not be satisfied with such futile attempts to explain the causes of diseases, but expects them to be better supported by truth and demonstration.

MONSIEUR GIRARD, physician in ordinary to the king of France, mentions a species of bronchocele, which must have been very uncommon. It is, he says, occasioned by a portion of the internal membrane of the trachea being protruded betwixt two of the cartilaginous rings of the windpipe, and forming a tumour in the

\* “ Il y a des villages entiers où personne n'en est exempt. On a dit que c'étoit une question dans le pays, de savoir si c'est un défaut d'en avoir où de n'en avoir point, & dans le Tirol en effet, on prétend que cela passe pour ornement. Dans les lieux où tout le monde en a, les hommes & les femmes disputent entr'eux de beauté, suivant la disposition plus ou moins régulière & avantageuse du Goître qu'ils portent. Les Tyroliens traitent de *Cols de Grue* ceux de leurs voisins, de même que les étrangers qui n'ont point de Goître. Un Anglois, voyageant dans ces contrées attira tous les regards par sa figure ; mais on trouvoit qu'il lui manquoit un grand agrément : *le belle homme*, disoit on, *s'il avoit un goître.*” Girard, *Traite des Loupes*, p. 409.

anterior

anterior part of the neck, soft, not discoloured, and without pain.

THERE is no doubt but the inhabitants of mountainous countries are more subject to the bronchocele than others; but there are exceptions to this general observation. In some parts of France the bronchocele (le goître) is endemic, particularly in Dauphiné and the Gévaudan. In the Gévaudan there are two little towns, at no great distance from each other, one of them is called St. Chely, and the other Malzieu. Malzieu is situated in a *valley*, surrounded by high mountains, and in this town most of the people have swelled necks; whereas at St. Chely, which stands in a high situation, the goître is unknown\*.

THE bronchocele is to be met with at Paris and its environs, and there (as I believe at all other places) women are more subject to it than men; and Monsieur Girard having observed in France, as well

\* Girard, du goître.

as some other countries, that the greater number of women who have the bronchocele are *married*, is induced to think the cause may be explained from circumstances which take place in parturition. Admitting this to be a fact, he has explained it in a very ingenious manner \*. But the women of St. Chely must be supposed to have the same difficulties in bringing forth their children as at Paris, and other places, and yet the bronchocele is

\* “ C’est toujours après une grande inspiration que  
 “ les femmes en couche font les plus grands efforts. Les  
 “ poumons, remplis d’air, souffrent une grande compres-  
 “ sion, ainsi que le diaphragme. Les muscles du larynx  
 “ se contractent pour empêcher la sortie de l’air, dont la  
 “ présence est de la plus grande efficacité, pour que les  
 “ muscles du bas-ventre exercent une puissance propor-  
 “ tionnée à la résistance qu’ils ont à vaincre ; & il est  
 “ vraisemblable que leur action l’emporte de beaucoup  
 “ sur celle de la matrice pour l’expulsion de l’enfant.  
 “ C’est donc avec raison que les femmes, dans cet état,  
 “ retiennent le plus qu’elles peuvent leurs cris, pour fa-  
 “ voriser cette action. Il en résulte, d’un autre côté,  
 “ que l’air, chassé avec violence, mais arrêté avec la  
 “ même force par le retrecissement de la glotte & du  
 “ gosier, gonfle & distend d’une part la trachée-artère,  
 “ de même que les bronches, & de l’autre intercepte la  
 “ circulation du sang dans les parties voisines, le peut  
 “ même faire extravaser dans le tissu cellulaire.”

unknown

unknown there ; and indeed the fact, as far as I know, is, there are as many unmarried women who have this disease, as of those who have experienced the pains of labour.

THE bronchocele is common in many parts of England, particularly in Derbyshire ; hence it is sometimes called the Derby neck. It is also very prevalent in some districts of Germany, the mountainous parts of Swisserland, at Turin, and the country adjacent the Po and the Doria.

I HAVE before observed, that the ancients had no certain ideas of the nature of the bronchocele, and therefore could not be supposed to recommend any method of curing it, which would bear the examination of rational enquiry. Celsus having confounded the bronchocele with a common encysted tumour, and advised the use of the knife for its cure, appears to have led others into the same mistake.

THE extirpation of the bronchocele by the knife, hath been attempted by Aquapendente, and recommended by Dionis. And we read in Palfin \*, that a young lady of distinction having had a bronchocele extirpated, died under the operation. Mr. Gooch † tells us, “ that he was  
 “ once prevailed upon to be present at the  
 “ extirpation of a bronchocele. The Sur-  
 “ geon was an intrepid operator, but be-  
 “ fore he had half finished the business,  
 “ there was such an effusion of blood, as  
 “ obliged him to desist, and turn his  
 “ whole attention to restraining the hæ-  
 “ morrhage ; or, in the opinion of all pre-  
 “ sent, the patient would have sunk and  
 “ died under his hands. She died in less  
 “ than a week, and I was informed that  
 “ the blood was never totally stopped.  
 “ In another Case, where the operation  
 “ was performed against my opinion, by  
 “ one of the most dextrous operators in  
 “ London, a fatal hæmorrhage was very  
 “ near taking place. The young lady’s

\* Palfin Anatom. Tom. II. p. 313.

† Gooch’s Med. & Chirurg. Obs. p. 136.

“ life

“ life was preserved, only by having a suc-  
 “ cession of persons to keep a constant  
 “ pressure upon the bleeding vessels day  
 “ and night for near a week; with their  
 “ fingers upon proper compresses, after  
 “ the operator had been repeatedly disap-  
 “ pointed in the use of the needle and  
 “ ligature.”

WHEN we reflect upon the situation of  
 the thyroid \* gland, and consider its nu-  
 merous arteries, which increase in diame-  
 ter in proportion to the enlargement of the  
 part, we shall not be surprised at the diffi-  
 culties, that must attend its extirpation in  
 a *diseased* state, and the danger there ever  
 must be, of incurring a fatal hæmorrhage.

\* “ Les parties que cette humeur affecte, sont entre-  
 “ lacées d’une quantité immense de vaisseaux sanguins.  
 “ L’ouverture, principalement de l’artere laryngée supe-  
 “ rieure, premiere branche de la carotide externe (artere  
 “ fort grosse, à proportion du petit volume de la glande  
 “ thyroïde, à la quelle elle va se rendre,) jetteroit dans  
 “ un péril éminent de mort, vu qu’il est ici très—difficile  
 “ de lier les vaisseaux, ou de faire de fortes compressions  
 “ pour appuyer l’action de l’agaric ou d’un caustique.”  
 Girard du Goître, p. 433.

SOME observations have been communicated to the Royal Academy of Surgery at Paris, of the radical cure of the bronchocele having been obtained, by making an incision on each side the tumour, and then, by the introduction of a seton, to promote an internal suppuration. In particular cases, where an external opening hath been made, *Monf. Louis*, a Surgeon of the first eminence at Paris, affirms, that, if there is no reason (on account of a scirrhus hardness) to suppose the tumour will degenerate into a cancer, he attacks the complaint with the caustic stone; and when the eschar separates, by reiterated applications of the caustic, he pushes on into the centre of the gland. This process not only, he says, occasions a destruction of the substance of the part, but, that afterwards, proper external resolvent applications may be applied with advantage, which before the opening of the tumour, may have been used without the least benefit. *Monf. Louis* farther observes, that in some of these cases, wonders may be done with butter of antimony, used with discretion.

cretion. From the situation and structure of the thyroid gland, there can be little reason to imagine, that any topical application can be of use in the bronchocele. Whatever is thus applied, is absorbed by the bibulous orifices of the lymphatics, which open upon the surface of the skin, and is either carried on with the lymph into the common course of circulation, or arrested by the next lymphatic gland. Mons. Girard \* acquaints us, that he has sometimes seen an incipient bronchocele dispersed by gentle and long continued friction upon the part; and advises its use, whenever an internal process is entered upon for a cure, which he thinks must be taken from the class of medicines that operate upon the urinary passages. He defends this opinion by analogical reasoning, and partly by two or three uncommon cases that he has met with. One of these is the case of a poor woman, who had a bronchocele for some time, of which she was cured by a *diabetes*.

\* Girard des Loupes, p. 429.

FROM the whole, we may be allowed to deduce the following corollaries,

1st, That an attempt to extirpate the bronchocele with the knife, can *never* be made without hazarding the patient's life :

2dly, That there can be but small hopes of a cure from topical application : and,

3dly, That the resolution of the tumour can only be expected by internal medicines.

MONS. DAPEYRON, a physician in Auvergne, has had great success in the treatment of the bronchocele, from the dissolvent and diuretic effects of the powder of calcined egg-shells. Three cases upon this subject, were read with applause in the Royal Academy of Sciences at Montpellier, the 12th of January 1769 ; and they have been since inserted in the *Journal de Médecine* \*, of the month of March 1770.

\* Vid. *Journal de Médecine* du mois de Mars 1770.

He prepares his patients for some days with mutton broth, in which the roots of madder have been boiled; then he gives a purge, after which he begins with the alkaline powder. Two scruples or a drachm of it, is mixed with three large spoonfuls of old red Port wine, and given every night and morning. By these means, the tumours disappeared in less than forty days.

UPON another occasion, Mons. Dapeyron has asserted, that fifteen or twenty doses of a drachm each, of the powder of calcined egg-shells, are sufficient for the radical cure of the bronchocele. How far this method will succeed in similar cases, must be left to future experience to determine.

A SURGEON of reputation, who served in the army of the Elector of Bavaria in the war before the last, had a remedy, by which he is said to have cured the bronchocele in the space of twelve days. The recipe is as follows:

R 4

Take

Take—Sulphur one ounce.  
 Sponge, one drachm and a half.  
 Bits of new cloth of different  
 colours, two handfuls.

The whole is to be put into a new and varnished earthen pot, and after being covered and luted, it is to be placed in an oven.

WHEN the contents are calcined, they are to be powdered, and passed through a sieve. The powder is to be divided into twelve parts; six of these are to be reserved for internal use, and the other parts are to be mixed with a poultice of bread and milk, and applied to the tumour. Mr. Proffer \* also relates, that the bronchocele may be cured by the exhibition of a medicine twice a day, composed of millepedes, burnt sponge, and cinnabar of antimony. The patient is to be purged at intervals, with mercurial cathartic pills.

I MIGHT enumerate some other methods, that have, at various times, been

\* Treatise on the Bronchocele.

put in practice for the cure of this troublesome disease; but as none of them have preserved any degree of reputation, their insertion would take up the Reader's time to no purpose. Indeed, it must be ascribed to the total inefficacy of most of the remedies recommended for the cure of the thick neck, that many eminent Surgeons, with Mr. Gooch, have confessed, in their attempts to resolve these swellings, they have generally been defeated\*.

THE most celebrated remedy for the cure of the bronchocele, is that which for many years hath been sold at Coventry, and hitherto confined to the knowledge of a few persons. The history of it is as follows.

IT is now a considerable time since Dr. Bate lived at Coventry, and practised as a physician. He had a daughter, who married a Mr. Keeling, an apothecary of the town: after Miss Bate was married to Mr. Keeling, she was afflicted with a

\* Gooch's Med. & Chirurg. Obs. p. 138.

bron-

bronchocele, and applied to her father for his advice in the case, who gave her a prescription which perfected her cure. After this event, Mr. Keeling administered the same medicines to other patients with such success, as soon procured him no small degree of reputation. After his death, Mrs. Keeling kept the medicine a secret, but prepared and sold it with so much advantage, that she is said to have gained more than three thousand pounds by it. Mrs. Keeling has now been dead between twenty and thirty years. Mr. Lucas, who served his apprenticeship with Mr. Keeling, and prepared the medicine for him, communicated the secret to Mr. Brockhurst, who was likewise an apothecary at Coventry, and from him the discovery was made to Dr. Jones, a physician at this place, who has been dead about 16 years. After the decease of Dr. Jones, the secret was divulged to two or three persons. I cannot absolutely determine, which of the two following receipts Dr. Bate gave his daughter; nor does it appear of great consequence, because, upon trial, they have

have both been found to succeed equally well, in the cure of the bronchocele.

## NUMB. I.

THE day after the moon hath been in the full, the patient is to take a vomit. On the succeeding day a purge is to be administered. On the third night, going to bed, one of the following boluses is to be placed in the mouth under the tongue, and being suffered to dissolve gradually, is to be swallowed. This bole is to be repeated the six succeeding nights.

℞ Calcined sponge \*,  
Cork calcined,  
Pumice-stone burnt, of each 10 grains,  
to be separately powdered, and made into a bole with syrup, honey, or mucilage.

ON each of the seven days the patient takes the preceding bole, the following powder is to be administered in the forenoon, in any proper vehicle.

\* This was taken probably from Musitanus.

℞ Flor.

℞ Flor. cham. pulv.  
 Rad. gentian. pulv.  
 Sum. centaur. min. pulv. āā. gr. v. M.

On the eighth day the purge is to be repeated. In the wane of the succeeding moon the same process is to be entered into, and repeated a third time, unless the disease is cured before. The vomit is only to be taken before the first course of medicines.

#### NUMB. II.

℞ Spongiæ calcinat. ʒss.  
 Mellis q. s. pro bolo.

#### The PREPARATION.

TIE the best sponge up hard with wet packthread, and calcine it in a crucible. These boles are to be used as those of the former receipt; the bitter powders are to be taken, and the same directions with regard to evacuations, observed in every respect as in NUMB. I.

A VERY eminent Surgeon, who hath had many opportunities of seeing the good effects

effects of both these preparations, assures me, that either of them will succeed with more certainty, if the patient takes a vomit and purge during the *increase* of the moon.

SOME parts of these directions seem to bear the character of empiricism; but where no harm can possibly arise from, nor any inconvenience follow their use, it is to be wished, that those who think proper to give either of the preceding methods a trial, will do it in the manner recommended.

It seems highly probable, that the chief virtue of the bole consists in the calcined sponge. It is at present a dispute amongst naturalists, whether sponge is a vegetable; or whether, like the corallines, it is of animal origin. It yields upon a chymical analysis a larger quantity of volatile alkaline salt, than can be obtained from any animal substance, except the bags of the silk-worm; the caput mortuum incinerated, yields also a large proportion of fixed salt,  
not

not an alkaline one, like that of vegetables, but chiefly of the marine kind \*. Sponge is found in the sea adhering to rocks, particularly in the Mediterranean, and about the islands of the Archipelago.

THE calcined sponge for either of our preparations, is carefully powdered in a glass or marble mortar: if a brass one is used, the salts of sponge attract so much of the metal, as to acquire an emetic property.

IF the bronchocele is not very large, hard, or of long date; if the patient is a female, young, or not past thirty, I believe it will frequently give way to the treatment just described: but, if the tumour hath been of long continuance; if the patient is a man, or of either sex past the meridian of life; I fear, that in direct opposition to the *Coventry*, or any other receipt, the bronchocele will still remain one of the opprobria medicorum.

\* Lewis's Mater. Medic. p. 550.

An ACCOUNT of a WOMAN,  
accidentally burnt to death at Coventry.  
In a Letter to Mr. WILLIAM SHARP.  
From the Philosophical Transactions.

SIR,

THE following case, which has lately engaged the attention of every one in this part of the world, appears so very extraordinary, that I was determined to give you a minute account of its circumstances; which will be the more agreeable to you, as you may depend upon the truth of every thing I shall relate to you concerning it.

MARY CLUES, of Gosford-street in this city, aged fifty-two years, had an indifferent character, and was much addicted to drinking. Since the death of her husband, which happened about a year and a half since, her propensity to this vice increased to such a degree, that, I have been informed by several of her neighbours, she has drank the quantity of four half pints

pints of rum, undiluted with any other liquor, in a day. This practice was so familiar to her, that scarce a day has passed these last twelve months, but she has swallowed from half a pint to a quart of rum or aniseed-water. Her health gradually declined, and, from being a jolly well-looking woman, she grew thinner, her complexion altered, and her skin became dry. About the beginning of February last, she was attacked with the jaundice, and kept her bed. Although she was now so helpless, as hardly to be able to do any thing for herself, she continued her old custom of dram-drinking, and generally smoaked a pipe every night. No one lived with her in the house. Her neighbours used in the day, frequently to come in, to see after her; and in the night commonly, tho' not always, a person sat up with her; to whom she hath often cried out, that she saw the devil in some part of the room, who was come to take her away. Her bed-room was next the street, on the ground-floor, the walls of which were plaistered, and the floor made of bricks.

The

The chimney was small, and there was a grate in it, which, from its size, could contain but a very small quantity of fire. Her bedstead stood parallel to, and at the distance of about three feet from the chimney. The bed's head was close to the wall. On the other side the bed, opposite the chimney, was a window opening to the street. One curtain only belonged to the bed, which was hung on the side next the window, to prevent the light being troublesome. She was accustomed to lie upon her side, close to the edge of the bedstead, next the fire; and on Sunday morning, March the 1st, tumbled upon the floor; where her helpless state obliged her to lie some time, until Mary Hollyer, her next neighbour, came accidentally to see her. With some difficulty she got her into bed. The same night, although she was advised to it, she refused to have any one to sit up with her; and, at half past eleven, one Brooks, who was an occasional attendant, left her as well as usual, locked up her door, and went home. He had placed two bits of

S coal

coal quite backward upon the fire in the grate; and put a small rush-light in a candlestick, which was set in a chair near the head of the bed, but not on the side where the curtain was. At half after five the next morning, a smোক was observed to come out of the window in the street; and, upon breaking open the door, some flames were perceived in the room, which, with five or six buckets of water, were easily extinguished. Betwixt the bed and fire-place, lay the remains of Mrs. Clues. The legs and one thigh were untouched. Except these parts, there were not the least remains of any skin, muscles, or *viscera*. The bones of the skull, thorax, spine, and the upper extremities, were completely calcined, and covered with a whitish efflorescence. The skull lay near the head of the bed, the legs near the bottom, and the spine in a curved direction; so that she appeared to have been burnt on her right side, with her back next the grate. The right *femur* was separated from the *acetabulum* of the *ischium*; the left was also separated, and broken

## A P P E N D I X.

broken off about three inches below the great *trochanter*. The connection of the *sacrum* with the *ossa innominata*, and the inferior *vertebræ* of the loins was destroyed. The intervening ligaments kept the *vertebræ* of the loins, back, and neck together, and the skull was still resting upon the atlas. When the flames were extinguished, it appeared that very little damage had been done to the furniture of the room, and that the side of the bed next the fire had suffered most. The bedstead was superficially burnt, but the feather-bed, sheets, blankets, &c. were not destroyed. The curtain on the other side the bed was untouched, and a deal door near the bed not in the least injured. I was in the room about two hours after the mischief was discovered, and observed the walls and every thing in the room were coloured black: there was a disagreeable vapour, but nothing was much burnt, except Mrs. Clues, whose remains I saw in the state just described. I took away one of the bones (the remains of the *sacrum*) which you have inclosed with this

## A P P E N D I X.

Letter. The only way that I can account for this phenomenon is, by supposing that she again fell out of bed on Monday morning; that her linen was set on fire, either by the candle from the chair, or a coal falling from the grate; that her solids and fluids had been rendered inflammable, by the immense quantity of spirituous liquors she had drank; and that she was probably soon reduced to ashes, as the room suffered very little.

T H E E N D.

357

52  
99

