

Observations on the treatment of scirrhus tumours of the breast : to which is added, a new and efficacious mode of treating the ulcerated cancer / by James Nooth.

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OBSERVATIONS
ON
THE TREATMENT
OF
SCIRRHOUS TUMOURS
OF
THE BREAST.

TO WHICH IS ADDED,
A NEW AND EFFICACIOUS MODE OF TREATING
THE ULCERATED CANCER.

BY JAMES NOOTH,
SURGEON TO HIS ROYAL HIGHNESS THE DUKE OF KENT,
A MEMBER OF THE ROYAL COLLEGE,
AND
LATE SENIOR SURGEON TO THE HOSPITAL AT BATH.

THE SECOND EDITION,
WITH ADDITIONS.

London:
PRINTED FOR J. JOHNSON,
ST. PAUL'S CHURCHYARD.

1806.

ON

ON

THE TREATMENT

OF

SCIRRHOUS TUMOURS

OF

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A NEW AND EFFICACIOUS MODE OF TREATING

THE ULCERATED CANCER.

BY JAMES NOOTH,

ATTORNEY TO HIS ROYAL HIGHNESS THE DUKE OF KENT,

A MEMBER OF THE ROYAL COLLEGE,

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LATE SENIOR SURGEON, PRINTED, SHOE-LANE, LONDON.

THE SECOND EDITION,

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LONDON:

PRINTED FOR J. JOHNSON,

ST. PAUL'S CHURCH-YARD.

1806.

TO
WILLIAM MORETON PITT, Esq. M.P.
FOR
THE COUNTY OF DORSET.

MY DEAR SIR,

WERE I to address you in the usual language of Dedication, I should risk that friendship with which you have always honoured me.

I beg leave, however, in testimony of my esteem and respect, to present to you a Treatise on a subject most interesting to humanity, which hitherto has resisted medical aid; with a hope of alleviating some distresses of our fellow-creatures.

I have the honour to be,

My dear Sir,

Your obliged and obedient servant,

39, Queen Ann Street,
Portland Chapel, Feb. 20, 1806.

JAMES NOOTH.

WILLIAM MORETON, Esq. M.P.

THE COUNTY OF DORSET.

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low-countrymen.

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JAMES NOOT.

PREFACE,

THE first publication of this work having been favourably received, I have been encouraged to offer a second edition.

This disease has been treated by many English, as well as foreign, Surgeons of distinguished abilities, who have far advanced the knowledge of their profession in general ; but although much light has been thrown upon the principal and leading parts of surgery, yet the inquiries on this particular subject have not been so successfully attended to, and published, as on many others.

Very little discrimination has hitherto been made between real *scirrhi* and other affections of the breast.

A long practice induces me to doubt all authorities which are in favour of a pre-existing disposition in the habit towards this complaint ; and I shall attempt to prove, that the disease is, originally, independent of any constitutional taint.

The method of performing the operation for the extirpation of scirrhus tumours, as proposed in the following Treatise, has been pursued by me thirty years ; and my feelings have been gratified by learning that it has been successfully practised by others, though possibly not in a perfectly similar manner.

In the far advanced stages of Cancer, where the operation could not be advisable, it has uniformly been my endeavour to alleviate the sufferer's pain, so as to render that dreadful situation as tolerable as circumstances would admit.

All theoretical discussions have been declined by me as much as the subject would allow ; and my observations confined to practice and the results of it.

With the consolatory hope of guarding some unfortunate people, labouring under Cancerous Affections of the Breast, against the artifices and cruelties of impostors, it will not be regretted by me that I have employed my leisure hours with this publication; which being intended for their perusal, as a didactic piece, is divested of all technical phrases, as it has been my aim to show, with perspicuity, in plain language, the fallacy of ill-founded opinions.

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INTRODUCTION.

THE ancient physicians were acquainted with this disease, both in a scirrhus and cancerous state, and its fatal progress was evident to them; for Hippocrates remarks, that “hard tubercles are found in the breasts of women, sometimes large and sometimes but small; yet these do not suppurate but always grow harder, and from these afterwards arise occult cancers.”*

In the early ages of medical science, cures were attempted by the use of the productions of the vegetable kingdom only, and such plants as were found to be active agents were industriously collected and employed; but cancerous affections

* That it was considered as incurable (at least by medicine) before the time of Ovid, will appear by the following words of that author, “*Utque malum late solet immedicabile cancer serpere.*” He does not make use of the word *insanabile*, as indicating its being wholly incurable by any means, but the word “*immedicabile*,” as more properly applicable to medical treatment.

certainly did not yield to the various applications ; which melancholy facts were considered as a justification for the exercise of the actual cautery, although those unfortunate people who had sufficient resolution to submit to this dreadful treatment, were seldom (perhaps never) gratified by a cure ; at least history does not give one instance of success.

The pain, and subsequent bad effects, of the cauteries induced the most cautious and humane in the medical profession, a few centuries back, to reject such cruel means, and substitute caustics ; still imagining there was an absolute necessity for destroying those affections by such methods as were supposed capable of removing the diseased mass. Early in the year 1400, arsenic was introduced as a specific remedy, and was blended with every caustic composition for the destruction of cancerous complaints ; though some plants retained their credit, and were continued in use, but most probably to assuage pains, viz. the *solanum lethale*, &c.

Valescus de Taranta speaks of the arsenical caustics, and particularly recommended the *solanum* at that time. All writers on cancerous complaints, for two or three centuries afterwards, implicitly adopted the opinions and practice of their

predecessors, without offering any new idea on the subject ; therefore no information was gained either with respect to the original cause or causes of this disease, or what is of much more importance, any improvement made in the mode of treating it.

Medical men have considered this disease the *opprobrium medicinæ*, and have neglected every consideration which could lead the mind to a more rational investigation of the cause or attendant symptoms, both in the simple and complicated stages. They clearly saw the delusive and often very serious effects of caustics, and they were not successful by regimen or other medical treatment ; therefore no emulation, in instances of this particular nature, appears to have stimulated their pursuits, and the treatment of cancerous complaints was usurped by those the least qualified to improve this very important branch of surgery.

Wiseman, indeed, wrote elaborately on cancers in 1674, and adopted a new mode of treatment ; but his ideas were confused, and generally inconsistent ; for he says, “ this disease might arise
 “ from an error in diet, a great acrimony in the
 “ meats and drinks meeting with a fault in the
 “ first concoction, which, not being afterwards
 “ corrected in the intestines, suffered this acrimo-

“ nious matter to ascend into the blood ; where,
 “ if it found vent either in the menstrea in women,
 “ or by the hemorrhoides or urine in men, the
 “ mischief might have been prevented.”

Soon after the commencement of the last century, Heister obtained great reputation in Germany by the extirpation of scirrhus tumours; and his success placed this interesting subject of medical inquiry in a very favourable light for his cotemporaries. The treatment of cancerous complaints has lately engaged the attention of professional men in every part of Europe, but the science of physic seems to have been exerted on this subject with little success; and it is extremely probable, that we shall ever have to lament the want of efficacious and certain remedies for the more advanced stages.

Various causes have been assigned for these affections; but most attempts to investigate them appear to have been improperly connected with the idea of a pre-disposition in the constitution. This disease having been the theme of Arabian, European, and American authors, endeavours were made to discover those climates which more particularly subject the inhabitants to this cruel malady; but no satisfactory inference could be drawn from the original sentiments of the one, or the

comments of the others. Some observations seem to confirm an opinion, that the laborious classes of women are *now* more afflicted with scirrhus complaints in the breast, than those in superior stations of life ; not only from the accidental injuries to which the former are more exposed and liable, but from the inconveniences of dress, &c. contrasted with the latter.

It has also been very generally supposed, that women in a state of celibacy, upon the turn of life, became more particularly liable to these complaints than those who had had children. How far this opinion is warranted by strict observation, yet remains undetermined ; as scirrhus tumours are frequently found in the breasts of healthy young subjects during regular menstruations, and sometimes not till many years elapsed after these periodical evacuations had ceased.

Lately, the surgeons of our own country, of the most respectable abilities, have decidedly preferred the use of the knife to all caustic compositions ; but unfortunately, as the operation was not always successful, quackery, under the specious mask of secrecy, has been countenanced, and many kinds of imposition have been employed to dupe the unfortunate. To obviate which, is one incitement to the Author to publish the following

Cases; and it is trusted, that he will not be charged with egotism in the recital, as in plain narrative it is almost impossible to avoid it. To the *liberal* and *candid* these observations are submitted, in hope they may in some degree (if not wholly) answer his benevolent intentions.

OBSERVATIONS
ON THE
TREATMENT OF
SCIRRHOUS TUMOURS,
AND
CANCERS OF THE BREAST.

AS the breast is the principal seat of the disease, which I make the subject of these pages, it will be necessary to take some notice of the structure of the mammillary gland, and also to speak of the lymphatics found in the adipose membrane which surrounds it, with a view to distinguish some appearances which might mislead young practitioners.

The breasts are in a great measure formed by cellular texture, and may be defined to be two large conglomerate glands surrounded by an adipose and lymphatic mass, and supplied with arteries, veins, and nerves. The arteries are derived from

two different trunks, one of which is termed the internal, and the other the external, mammary; the first of these arises from the subclavian, and the latter from the axillary, artery. The veins necessarily accompany the arteries, and are distinguished by similar names; the nerves are not very numerous, and arise from the vertebral pairs. Like all other conglomerate glands, these are a congeries of small conglobate glands, in which the milk is secreted from the ultimate branches of arteries; the excretory ducts of these several glands, gradually uniting as they approach the nipple, form the *tubuli lactiferi*, and open at, and near, its apex. These ducts, in their course from the glands, are surrounded by a ligamentary substance; and the ducts which it contains, are capable of considerable extension and contraction; and in their natural state are sufficiently elastic to prevent, in maternal women, an involuntary discharge of milk, unless the distending force be too powerful from its redundance. The small single glands found in the adipose membrane are termed conglobate, and are very numerous; but it must not be expected that I should describe them minutely, or make any remarks on their uses; that subject having been treated by the first anatomists and physiologists in Europe, without any system being satisfactorily ascertained; therefore, I speak of them only as existing there, that their diseases

may be compared with those of the mamillary glands.

It will be proper to take notice of the *acini*, (as demonstrated by Mr. Cruikshank's preparations) which are small vesicles, in which the arteries secreting the milk terminate ; as I think they are immediately concerned in the primary causes of cancerous complaints. The existence of these minute vesicles was long doubted by the late Mr. J. Hunter, till he saw them injected. It has been a generally received opinion, that the breasts of women are more liable to cancerous affections than any other glands, and that those affections seldom present themselves till the vigour of the system begins to decline ; certainly, more real cancerous complaints are found in the breasts than in every other part of the body, the mamillary gland being the seat of this disease, which commences in those *acini* in consequence of inflammation. I believe that it never originates in the lymphatic glands ; but it would be difficult to assign a reason, why the decline of life, or loss of vigour in the system, should be the cause of these cruel disorders, whilst we find the same diseases brought on by external injuries in early stages of life and in very healthy subjects. It is sincerely to be wished, that diseases could be described with such precision, as to be distinguishable from each other with cer-

tainty; that practitioners might thereby be enabled to ensure a method of treating them with good effect. Tumours of the breast, from whatever cause they originate, very generally create suspicions of a disease, which may terminate in cancer: and remedies are often proposed, and made use of as extremely efficacious, which could have had no beneficial influence whatever on real scirrhus cases, as I shall endeavour to prove in some subsequent page, where my observations will be more fully given.

A scirrhus, properly so called, in an incipient state, feels like a small indurated gland, and by its mobility seems to be distinct from the mamma generally, although constituting a part of it. It seldom happens, that this insidious complaint is at first discovered by its giving any uneasiness, and it will sometimes become considerably enlarged before any degree of pain is perceived. The first sensations which create a suspicion of the existence of a scirrhus, are slight shooting pains; and in the progress of the disease, sharp lancinating pains follow, of momentary duration, which alarm the patient: sometimes no pains are felt for several successive days, yet at other times they recur frequently in a few hours.

As it would be impossible to point out any limited time for the progress of a scirrhus with any degree of accuracy, medical men are enabled to form an opinion of its malignancy only by the severity of the shooting pains, rapid increase in size, the hardness of its consistence, preternatural heat, with attachment to the integuments, and often to the pectoral muscle. Some gentlemen have been inclined to consider scirrhus tumours originating from bruises, as essentially different from those which they imagine to be spontaneous; but they have never traced any symptoms in the one, which were not universally attendant on the other. This distinction, in my opinion, cannot be supported by rational theory, or accurate observation in practice; as both of them are perfectly similar in their nature, as is every concomitant symptom, whilst in a scirrhus state, and their progress towards cancer are uniformly alike, and claim the same treatment; and it may be asked, has not extirpation confirmed this opinion?

Although a satisfactory explanation cannot be given of the immediate or proximate cause of a scirrhus, or how this vitiated state of the fluids and solids is produced, it may be allowed me to mention what appearances have been observed on examination of tumours after extirpation. I have always found much uniformity in their structure,

but the different stages of disease have presented some circumstances respecting their composition which deserve very strict attention. The surface has generally been very hard, containing a few minute vessels filled with red blood; but it was not possible to detach the outer coats in the same way substances composed of muscular fibres can be separated; the whole body was composed of tough fibres, convoluted and interwoven together. In some of the tumours that were small and recently formed, I have found the structure become progressively harder, and of a paler colour near the centre: but others, longer subject to a diseased action, have been softer, with apparent cells, containing a yellowish white liquor in a viscid state. Where the disease had long existed, I have frequently found portions of the tumour which presented a radiated appearance, which seemed to have been generated from the centre, and could be traced running in oblique directions to the surface; and am enabled to prove, by some scirrhus tumours which I have preserved in spirits, that contamination is communicated to the integuments by those irradiations. In some *scirrhi*, several distinct cells were observed to contain a yellowish fluid, not in a perfect purulent state, and these varied in their size, but were all filled with the said fluid, and the radiated appearances were evidently distinguishable; but I

could not, by means of a blow-pipe, discover any communication between any of the cells. The structure of scirrhus tumours, and the morbid state they are in when under examination, precludes a very nice or satisfactory investigation. Being anxious to know what effects this matter would produce, if inserted by inoculation into the arm of a healthy person, (but not being entitled to make that experiment on any human being except myself,) I conveyed a minute portion of it into a small incision on my arm ; two hours afterwards I felt the part uneasy, with a strong pulsation. On the following day, it was more uneasy, and much more inflammation appeared than generally attends so small a wound inflicted by a sharp instrument ; on the third, it remained nearly in the same state ; on the fourth day the wound became easier, and the inflammation and pulsation began to subside. A few days afterwards a large dry scab was formed, which I removed, and found the sore perfectly healed. Not choosing to rely on a single experiment, as a sufficient proof that a cancerous disposition could not be conveyed into the habit, I repeatedly inoculated myself from the year 1777, without ever producing any effects dissimilar to those in the first experiment. I am convinced, that those persons who give their attendance to cancerous subjects, are not so liable to get this cruel disease by absorption, as has been

too generally supposed ; although it may be alleged, that idiosyncrasy might prevent its serious effects on me.

Of late years many persons have pretended to cure scirrhus tumours, and even cancers in an ulcerated state, by plasters only ; and different caustic compositions, like many other medical secrets, have been held in high estimation, particularly the one employed by the late Mr. Guy,* which evidently contains some portion of arsenic : but were the cases it has been employed in candidly examined, I am persuaded it would be clearly found to have done much mischief without ever producing any advantages, which might not more certainly, and with more ease, have been obtained by another mode of treatment. The same kind of caustic had been employed by Dr. Stephens, of Dublin, who, afterwards, I am told, published it for a pecuniary consideration ; this circumstance set a supposed value on its efficacy,

* Guy's recipe is as follows:—Take of crew's-foot one handful, dog-fennel three sprigs, pound them well together, and add a table spoonful of crude brimstone, and as much white arsenic in fine powder ; make these into balls, and dry them in the sun. The balls must be powdered and mixed with the yolk of an egg, then laid over the tumour or cancer on a piece of bladder, which must be adapted to the part, and smeared over with the yolk of an egg. This plaster must not be removed till it drop off, which it will do in eight or ten days.

and his servant came to England with the secret, *wonderfully qualified* for a most intricate branch of surgery.

It is asserted, that this remedy possesses a peculiar quality in making the diseased part separate from the sound, and fall off in a dead mass; but surely common sense must convince every one, except the most credulous and ignorant, that all caustics will produce their effects equally alike on the sound and diseased parts. The late Mr. Gataker humanely endeavoured to remove this cloak of imposition, and justly observed, when any one pretended that those applications would not only destroy the tumour or sore which they were applied to, but would even eat or draw out the roots of these tumours, that it must clearly appear impossible to a person truly informed of the nature of this disease, and for the best reason which can be given, because he must know that there are no such roots existing, except in imagination. Even admitting the existence of such roots, can any rational person believe, that after this remedy had penetrated through the body of the tumour, it should strike by a sort of intelligent power into certain directions, exactly corresponding with the courses of these supposed roots, and eat or draw them out with no injury to the unaffected parts into which they are said to

be radicated, and with which they must be most intimately connected. It has been said that such roots are sometimes visible after the tumour has been extirpated by these caustic applications, from the appearance of small portions of fibres hanging loosely from the mass of any tumour destroyed by a caustic, especially if suspended in a liquid; for it is not possible on all occasions to confine the operation of a caustic application so exactly, but that it may destroy some small portion of the sound flesh, which, when separated, afterwards may form those appearances which fancy has chimerically given names to, and which ignorance or artifice has adopted as realities.

In the early part of my professional pursuits, caustics were employed by me in a few instances, for the purpose, because I relied too much on the delusive reports of the successful practice of others; but was soon convinced that this mode of treatment was always extremely painful, never fortunate, and generally dangerous. I do not hesitate to assert, that if they ever answer the end proposed, it has been when they were applied to small cutaneous glands or encysted tumours, and to those only which no person of real judgment would pronounce to be of a cancerous nature. If it be inquired by whom these remedies are generally employed, it will be found that they are

under the management of people extremely deficient in medical and surgical knowledge; yet such is the public infatuation, that it will seldom admit the advantages a medical education has over empiricism in the treatment of these affections. Long lists may be shewn of people said to be effectually cured by such practitioners; but they deceitfully or ignorantly represent slightly enlarged lymphatic glands, excrescences, and encysted tumours, as cancerous cases; which will readily yield even to improper management, by having their substances, or cysts, destroyed. There are many accounts of unfortunate women, immediately after being released from the severity of pain by the action of a caustic, with the delusive satisfaction of having the diseased mass removed, expressing their happiness by signing such assurances, as should induce others to partake of so great a comfort; yet these very persons have soon afterwards died, in consequence of having the disease exasperated by such treatment*.

* A Lady, twenty-five years of age, consulted a female quack, for a complaint in her left breast. This woman declared that a cancerous affection had made a considerable progress, and enforced the immediate application of her plaster, which always proved to be a safe and effectual remedy for drawing out a cancer. As she promised success, she insinuated a fee of thirty guineas: one moiety of which must be paid before she attacked this direful disease, and the other when the cancer should be removed. This artifice produced the intended effect, as the Lady submitted to the requisition. She suffered intolerable

Professional men, in every part of Europe, have lately attempted to improve on the ideas of the ancients, and laudably endeavoured to discover some remedy in the vegetable or mineral kingdom for this cruel disease. This desideratum was supposed to have been acquired

for many days, but was consoled by assurances that the plaster was drawing out the claws of the cancer. In ten days this plaster was renewed; and soon afterwards the nipple, with a superficial quantity of the integuments, sloughed. The sore was kept open, in a very irritable state, by improper dressings, for many weeks, to allow time, as the Lady was told, for the formation of another nipple. The brother of the Lady, suspecting this woman's artifice and ignorance, interfered, and placed his sister under my care in Sept. 1805. On examining her breast, I found several slightly enlarged lymphatics, but the mamillary gland was not affected: her constitution was in a very debilitated state, with strong nervous irritability; and these unpleasant symptoms were increased by an extreme low diet. Her menses were irregular, and less copious than a woman in health would produce. I recommended animal food of any kind, and urged her to drink two or three glasses of wine after her dinner. Conceiving that the stimulus produced by slight galvanic shocks, directed to the lymphatic glands, might be of service in this case, I employed them every morning, and soon had the satisfaction to find her breast free of any indurations: the sore left by the caustic plaster was healed, and her general health much improved. As the apex of the breast was destroyed, her situation must be peculiarly unfortunate, should she ever become a mother: as the mamillary gland would perform its functions, but, the natural order being intercepted, milk abscesses must unavoidably be formed.

It is seriously to be lamented that such practitioners are not interdicted by legislative authority in this country, as they are, from very humane motives, in several states of Europe.

by Dr. Storck, when he introduced the *cicuta* ; but our high expectations and earnest hopes were disappointed. Although I think it must be confessed, that this plant has been found of more service than any other ; but prejudice against a medicine, (which certainly was not found to be a specific in cancerous affections,) soon led us to place little confidence in its powers ; yet it is employed daily, with great success, in various and very dissimilar cases.

Mercury, although a very useful and powerful medicine in many glandular complaints, seems to have less control over cancerous affections than the *cicuta* ; and has been employed in all its various preparations, I think, without success ; and I have often observed it to have a considerable influence in hastening their progress. A gentleman *, however, of distinguished eminence in his profession, has given some extraordinary instances of the good effects of the corrosive sublimate in cancerous diseases, which had resisted every other mode of treatment ; and there are many other cases related by men of great respectability, which might incline us to expect much from this medicine. But I solemnly affirm, that I have repeatedly, with perseverance, given it a fair trial, with-

* Mr. Gooch.

out having the satisfaction to find it capable of affording relief in any one instance, or even suspending the characteristic symptoms; though I have often found it of very essential service in correcting the state of old vitiated ulcers (not cancerous) in various parts of the body.)

Antimonial medicines have not been neglected on these occasions; for it has been asserted, that full and continued doses of Dr. James's Powder (which is known to have antimony for its basis) have dispersed very considerable tumours of the breast, supposed of a cancerous nature. Probably they might remove a complaint of an inflammatory disposition with a general fulness, especially if previously assisted by blood-letting; but such cases should not be mentioned as in any respect connected with that disease, which would become a scirrhus affection, or eventually a cancer.

The late Mr. Justamond, in his well-meant pursuits, supposed he had discovered a remedy for cancerous complaints in the *flores martiales*, which he depended on in every stage of the disease; yet after many sanguine but unsuccessful trials, he relinquished them as inadequate to the intended purpose.

Dr. Jaenisch, a Russian, speaks very favourably of the *belladonna* as a substitute for the *cicuta*. This plant is given either in powder, from one to three or four grains, or in an infusion; but every preparation was found so uncertain in its operation, and so liable to produce such very alarming symptoms, by violently affecting the nervous system, that it was never very generally employed even in Russia.

Mr. Ray, in his Hist. Plant. p. 680, gives an account, from his own knowledge, of the effects of a fresh *belladonna* leaf applied externally to an ulcer, supposed cancerous, below the eye. He says, "the *uvea* became in one night so relaxed, that it lost all power of contraction; the pupil, although exposed to the strongest light, continued dilated to four times its natural size: but on removing the leaf, the parts gradually recovered their tone; the application was repeated three several times, and always produced the same effects." The *solanum* has been frequently given for the same purposes in powder and in infusions, not only in modern practice, but by very old writers on cancerous complaints.

Ægineta ordered a cloth to be several times folded and dipped into the juice of this plant, to be applied to remove pains in ulcerated cancers.

So did Oribasius to discuss scirrhus tumours. Mr. Gataker, by a great variety of experiments, conducted on the most laudable principle, has satisfactorily proved, that no essential benefit is to be procured by either species of these plants in cancerous affections; and has endeavoured to put us on our guard against their mischievous tendencies.

The French surgeons in general have been partial to arsenic; and M. le Febure writes, that it will discuss a scirrhus, when given internally, and be found a specific remedy even in the open cancer. He gave his powder * in as small doses as the stomach and bowels could bear, and sometimes in a watery solution. As the Academy of Surgeons at Paris did not notice this grand specific, I suspect that its success did not entitle it to any great share of reputation.

J. C. Loder, professor of medicine at Jenna in Upper Saxony, in a Journal of Surgery, Midwifery, and Medical Jurisprudence, published 1797, has given some cases of a cancerous nature, which were very successfully treated by an arsenical pre-

* $\mathcal{R}$ Arsenic. alb. pur.

Antimon. crud. et sulphuris crud. p. $\mathcal{A}$ pulveriscentur separatim, et simul reponantur in crucibulum, et urgeantur igne applicato, donec in massam rubram vitream abeant.

paration; but whether they were really carcinomatous, or resembling the cancer of the breast, some surgeons, perhaps, will be disposed to doubt. That this remedy, from what Mr. Loder has asserted, has a claim to attention, I readily admit, as furnishing proofs of its efficacy in curing a peculiar species of ulcer; yet it is extraordinary that scarcely any instance of its specific powers for cancerous ulcers of the breast have been produced. It has been occasionally employed for several centuries, and it might reasonably be supposed, had it been found very efficacious, that it would have been brought more generally into practice. I have often prescribed a solution of arsenic, particularly as recommended by Dr. Fowler, to patients with scirrhus tumours in the breast, who persevered in its use for a considerable length of time, without having the consolation to observe any advantages; and when I have employed it as an external application for cancerous ulcers, although with great caution, it has always produced pain, and evidently appeared to exasperate the disease.

A publication by Dr. R. tells us, that “a recent scirrhus must yield to bleedings, antiphlogistics, metallic alteratives, extreme abstinence from fluids, and a proper diet: but the inveterate one, or second species, requires a long

“ perseverance in the use of penetrating aperient
 “ metallic remedies, to give an additional force
 “ to the diseased vessels, to resolve the viscid
 “ impacted matter, or change its quality and
 “ prepare it for absorption: and thus gradually
 “ reduce the tumour by the expulsion or mutation
 “ of the causes; but should it prove obstinate,
 “ and become the third species, or occult cancer,
 “ the patient must be contented with a precarious
 “ relief from medicine only.” This author boldly asserts, that extirpation, under any circumstances, or in any stage of the disease, is useless and extremely cruel; and this opinion, *he declares*, is confirmed by the most eminent physicians and surgeons, ancient and modern.

This confidence in medicine, and dogmatical mode of reasoning, (if reasoning it can be called), has undoubtedly led many unfortunate women, afflicted with scirrhus affections, into a state of extreme misery. The Doctor's theory will not permit me to allow him a large share of professional credit on this subject; yet I will admit, that his observation, as far as it relates to the ancients, has the shadow of truth on its side; but their mode of extirpation ought to be adverted to particularly, and I hope the Doctor will forgive

me, if I clearly refute that part of his assertion respecting modern practice.

Mr. Fearon, in a late publication, has very strenuously recommended frequent bleedings for scirrhus indurations of the breast, and principally by leeches applied to the part affected; and this treatment is to be assisted by a proper light diet. It would have been a fortunate discovery, if this practice could have been supported on the evidences of several confirmed cases of a real scirrhus disposition; but he has given us, such as they were, only one or two instances of his success. Although this practice, in cases of real *scirrhi* of the breast, was not congenial with the opinion formed by me of the nature and obstinacy of these complaints; yet his professional reputation induced me to pursue a method, which by his account had proved efficacious, but my hopes were disappointed. It is a fact, that occasional bleedings by leeches from the part affected will assuage the uneasiness produced by an inveterate scirrhus, and in a few instances mitigate the symptoms for several days, but a diminution of the tumour never succeeded by those means under my observation; yet I shall be happy to be convinced by the future practice of others, that such treatment can eradicate a scirrhus, (properly so called), by unloading the vessels and promoting absorp-

tion, and will with them be contented with the importance of the fact, leaving the solution to physiologists.*

Many partial affections of the breast, improperly called scirrhus tumours, I have dispersed by medical treatment and a proper attention to diet; my object was to unload the system, by keeping the bowels in a proper state, and by having recourse to occasional blood-letting, when I supposed too great a fulness in the habit. I afterwards employed an aqueous solution of the *sal. ammon.* for the purpose of slight stimulation, and have generally found it answer my intentions; but I never suspected these cases had any tendency to a scirrhus disposition.

Electricity has lately been employed for the discussion of scirrhus tumours, and a few instances in private practice have been related of its powerful effects; but I apprehend that some gentlemen have mistaken other affections for *scirrhi*. I have found electricity of the most essential service in many cases which had been de-

* In some instances I have observed that the frequent applications of leeches to a breast, where there has been a slight affection of the integuments by attachment, or discolouration has indicated disease, have accelerated, I do not say produced, a cancerous disposition: by exciting a continued degree of inflammation, and causing an additional diseased action.

clared scirrhus, and were I disposed to seek professional fame by finesse, I could adduce a mass of evidence in support of this treatment. The three following Cases are selected from many others, in which electricity happily succeeded, for very obvious reasons ; these I had previously declared, had no cancerous tendency, in opposition to several firmly decided opinions.

“ Mr. C——, from the neighbourhood of Warminster, Wilts, applied to me for the cure of a tumour in his left breast, situated on the inferior portion of the mamillary gland : it was very distinct, as large as a swan’s egg, and very hard to the touch from distention. I considered it a strumous complaint, for the struma of the ancients seem to be those scrofulous tumours that were encysted. This disease is produced in the lymphatic glands, and is seldom attended with much uneasiness ; but, from its local situation, generally creates suspicions of a cancerous affection. Before he came to Bath, he had consulted several professional gentlemen, who had employed a variety of means to disperse this tumour, but without success ; and as every attempt had failed both by medicine and external applications, I employed electricity, giving him on the part affected, two or three hundred slight shocks every day. In ten days the tumour was consi-

derably reduced ; from this time absorption acted so powerfully, that it evidently diminished rapidly, and at the expiration of a month he returned home, happy in being freed from a complaint, which, for two or three years, had given him very great mental alarm. Another method, independent of electricity, might have relieved this gentleman with certainty ; I mean by opening the cyst, and pressing out the gelatinous fluid : but he dreaded an operation so trivial."

" Miss S. B. a most beautiful young lady from Devonshire, twenty years of age, and rather of a full habit, came to Bath with an enlargement of her left breast, which had been gradually increasing for eight or nine months. She did not complain of much pain, but found her breast inconveniently heavy. She had often consulted a medical gentleman in her neighbourhood, who entertained strong suspicions of a cancerous affection, and several subsequent consultations countenanced his opinion. Mrs. Tw——n, a most respectable young married lady, hearing of her distress, prevailed on her to accept a letter of introduction to me for the purpose of receiving my opinion. On an examination of her breast, it appeared to me that the affection was not of a cancerous nature. She informed me, that after having been dancing, she walked nearly a mile

through some wet grass to her father's house; that her breast soon appeared larger, her periodical discharges having entirely ceased from that time. After I had received the necessary information respecting her case, she, with tears and great agitation of mind, desired that I would candidly give her my opinion, as she came prepared for any decision. Her joy and satisfaction were inexpressible, on my assuring her that an operation by the knife was unnecessary, and that she might reasonably expect to return to her friends in perfect health in a month; and she had my request to inform them by the evening's post, which she did, with the utmost confidence in my opinion. I employed electricity round the pelvis, which I repeated daily, and within a week produced a very copious uterine discharge. The usual period having ceased, I examined the breast, and found it very considerably reduced. This circumstance very pointedly shews the strong sympathy between the breasts and uterus; for menstruation having been suppressed, a morbid affection immediately takes place in the breast; *nihil fieri sine causâ potest*; the uterine discharge being again promoted, the breast becomes free of disorder. I then ordered three grains of calomel with five of rhubarb, to be taken every other day: in addition to this treatment, I applied two hundred very slight electrical shocks to the breast

every morning. In a month she returned into Devonshire perfectly well, to the great satisfaction of all who had the pleasure of knowing her."

"A LADY, the wife of a general officer, about 40 years of age, rather lusty, and of a cheerful disposition, discovered a small tumour in her right breast, for which the *cicuta* was prescribed by her physician in London; who also enforced a very abstemious diet, and occasionally ordered the application of leeches to the part affected. This treatment did not reduce the tumour, and a surgeon was consulted, who suspected the existence of a scirrhus, and recommended extirpation; but as the lady did not find her complaint at all troublesome, she positively refused submission to their opinions. A few months afterwards she came to Bath, and consulted me. I found a tumour nearly as large as a hen's egg, very moveable, and free from that hardness which attends a true scirrhus. She assured me, that she had never felt any shooting pains or any degree of tenderness. I proposed warm fomentations with a solution of *sal. ammon.* every morning and evening; and immediately afterwards I gave two or three hundred slight electrical shocks from one extremity of the tumour to the other. In ten days the tumour was evidently reduced, and in three weeks the cure was complete."

As I entertain no very favourable opinion of the treatment for real *scirrhi* of the breast by medicine, diet, or topical applications, it may be expected that I should give my opinion respecting the formation and progress of a scirrhus. In the very early stages of this disease, the evidences of its existence are extremely obscure, being attended by little or no uneasiness; but by placing a finger on the affected part, a small tumour may be distinctly felt; it commences with a deposition of lymph, (not of any peculiar adventitious quality), the common secretion from the substance of the gland, which, being retained, gradually accumulates, and becomes vitiated. A general opinion has prevailed, that these fluids become inspissated, because tumours of this kind are observed to acquire a considerable degree of hardness; but this circumstance depends on the great distention of innumerable fine convoluted vessels containing the obstructed fluids, which produces a disease in their organic composition. The general cause is extravasation from contusion, bringing on inflammation without terminating in suppuration; and it has sometimes been suspected to originate spontaneously; but I have generally brought my patients to the recollection of having on some occasion received an injury on the breast affected. By its continuance, the tumour becomes larger and harder, and slight momentary shoot-

ing pains are frequently felt, which probably are occasioned by the rupture of some of the minute vessels; and the cessation of pain may depend on the strictures being removed. As the disease advances, some stinging and slightly burning sensations are felt, probably by the impacted fluids becoming highly acrimonious. By an increased diseased action, cells are formed in the substance of the gland, (though not encysted), containing a yellowish fluid; but in the most advanced stages they are usually filled with a viscid pus: in this state the lancinating pains become less alarming, but the burning sensations increase in severity. Under these circumstances, on examining tumours which I had extirpated, I discovered a radiated substance from the body of the tumour, diverging considerably towards the integuments, which had produced a diseased action, attachment, discolouration, and at length ulceration. As the medical treatment for cancerous complaints of the breast, even in their milder stages, seems to be derived from speculative opinions, a question of the utmost importance is suggested:—

Is a scirrhus, or an incipient cancer, a disease of the habit generally; or is it a local affection?

A correct decision on this very interesting point will determine the great question of the propriety of extirpation of scirrhus tumours of the breast. It clearly appears to me, that a scirrhus, which might ultimately become a cancer, is a local complaint; but by a diseased progress, the habit may be contaminated by absorption from it: yet a scirrhus may exist a considerable length of time; before contamination is effected; therefore extirpation is advisable, and might be successfully employed before that event has commenced.

M. le Dran supposed that a certain fluid capable of communicating a cancerous affection, was always floating in the constitution, and at last deposited in some glandular substance. But even admitting this supposition to be a fact, it ought not to be a valid objection to extirpation, when it is found to be fixed and impacted in a gland. It is most probable, that he was induced to believe the primary existence of such a leaven or adventitious matter in the constitution, from the frequent returns of the disease after extirpation had been made *too late*.

The same idea (and probably from the same causes) seems to have made a strong impression on the mind of the late much-respected Dr.

Monro, who believed that a perfect cure was seldom or never to be expected by extirpation. He recorded the situations of nearly sixty unhappy patients with cancerous complaints who had submitted to the operation, yet three or four only remained free of the disease at the expiration of two years. These very unfavourable circumstances he attributed to a previous constitutional disposition towards this complaint : and observed, that the disease returned with greater violence, and made a more rapid progress on those, than it did on others who had not submitted to the operation. Being perplexed by his want of success, and still anxious to discharge his duty in society, as a humane man and good physician, he proposed the following question : “ Ought
 “ cancerous tumours to be extirpated, or should
 “ the palliative treatment only be pursued, when
 “ they cannot be resolved ? ”

A detail of cases so extremely unsuccessful, and under Dr. Monro's own management, rationally incites an investigation on this serious subject; for the opinions of two men of the first professional abilities, and the too general idea of a constitutional disposition towards this complaint, must have frequently deterred patients from submitting to the use of the knife; and consequently their being freed from a disease, in which every

possible means, yet discovered, had failed of proving successful. The opinion of Dr. Monro, who held so high a rank in his profession as an anatomist and surgeon, eventually produced that discredit which prevailed on extirpation; for his deserved reputation procured him the most doubtful cases, such as either by the prejudices of individual surgeons, or rather from the timidity of the patients, were arrived to that stage as to have produced a taint in the constitution, and then Dr. Monro was pointed out as the only man from whom any relief could be expected: so that no fair inference can be drawn from the result of such experience, except that there is very little chance of success from extirpation in the more advanced stages of cancer. But it is a certain fact, that very few on whom I have performed extirpation, have ever experienced any return of the complaint. It is not my intention to insinuate any disrespect to his opinion or treatment; I, by my own success, only mean to prove that a cancerous taint seldom (or probably never) occurs, but in consequence of the virus being absorbed into the system from an old local affection, and contamination produced by long diseased action.

Dr. Monro's observation, that this complaint became more violent, and made a quicker pro-

gress after extirpation, can not be a valid objection to the operation under favourable circumstances; but rather an additional incitement to it at a more early period of the disease than generally takes place; and this reason alone, in my opinion, must appear stronger than any that has been adduced against it; although M. le Dran, and many others of great professional reputation, have thought differently, from their want of success: but in desperate cases, such as often fall to the share of men the most distinguished, it must often happen, that contamination had taken place, or that the disease was become so extensive, that some part unfortunately remained after the operation, and then an additional inflammation and diseased action hastened a progress which probably would have been slow, if left undisturbed.

Mr. Hill, a surgeon at Dumfries, North Britain, extirpated from the breast forty-five scirrhous tumours; and all his patients, except five, remained free of the disease. This extraordinary success made people apply to him from all parts of the country; several of whom, after delaying till there was little probability of a cure by the operation, forced him to attempt it in opposition to his own judgment and inclination, and consequently the proportion of those effectually cured

became much less ; yet five in six of his patients, under the most discouraging circumstances, lived as long after the operation as, according to the bills of mortality, they would have been entitled to expect had they never been troubled with cancerous affections, or undergone any operation for the same. My own experience, which has been extensive during thirty years' practice, justifies me in saying, that a small fraction only, as not more than one in thirty patients, ever had any return of the disease, in any shape whatever, after they had submitted to the operation. In five cases only, from one hundred and forty-six patients, have I been unsuccessful. It must be supposed, that a surgeon sometimes acts contrary to his own judgment, and even risks his reputation on the consequences of an unpromising operation, when it is the only possible means of checking the approaches of inevitable death, or of satisfying the wishes of those nearly connected to the patients, who eagerly seize every occasion of encouraging the hopes of the afflicted.

Those who contend for a pre-disposition in the constitution, must surely be at a loss to account for so many remaining perfectly well after the diseased part has been removed ; for if it really did exist in the habit, the operation could only palliate or procrastinate, and sooner or later a

relapse would recur. The opinions urged by men of great respectability, that it is a constitutional disease, from inferences I think not fairly admissible, co-operating with the fears of the afflicted, have been productive of great mischief, and have subjected unfortunate people to all the consequent miseries of a cancer; which might, by a little reflection and resolution, have been avoided. Certainly many cases in the far advanced stages of disease would render any mode of extirpation useless, and an act of cruelty; but I do assert, that were the operation to take place as soon as such scirrhusities (as by their nature might be known would terminate in cancer) make their appearances, a return of the disease would be a very rare occurrence indeed; but when this has been delayed, till an extensive diseased action has taken place, and the lymphatic glands become affected by absorption, success cannot be expected; nor ought it to be inferred that there was originally a cancerous disposition in the constitution.

M. le Cat, of Rouen, presented a dissertation on cancers to the Academy of Surgeons at Paris, in which he is decidedly of opinion, that extirpation by the knife is the only remedy to be depended on; rejecting the delusive aid too

often expected by medical treatment, where a radical cure is attempted; and recommending submission to the operation, even under any circumstances.

It will be readily conceived, that his attempts in some cases must have been unfortunate; but his success in many others, even where the lymphatic glands appeared to be diseased, from a cause which he does not seem to have properly investigated, made him much too sanguine in favour of extirpation. Although the lymphatic glands will become diseased, if a scirrhus of the breast be too long neglected; yet those in the axilla, as well as others distributed in the adipose membrane, are sometimes enlarged from sympathy, and will recover their healthy state on removal of the cancerous tumour; but this distinction should be made with great caution; as generally the progress of a cancer is ascertained by the extent to which the lymphatics in the vicinity are affected. The state of the lymphatics, I mean when simply affected by a proximate inflammation, did not immediately engage his attention, and therefore led him inadvertently to suppose, (because he was often successful by the operation) that we ought not to be discouraged by any circumstance; but when an inveterate scirrhus tumour is found to be attended by very severe

lancinating pains and preternatural heat, with an attachment to the integuments, especially if they are very tense, in an irritable state, and discoloured; or if the nipple be reverted, with a partial copper-coloured tinge around it, or on any part of the breast, with large and hardened glands in the axilla, extreme caution is necessary in giving a favourable sentiment of the operation. Yet under circumstances less threatening than these, my opinion is, that all caustic applications would be improperly employed, because they are extremely painful, and produce a very considerable additional inflammation; are ungovernable in their effects, and always dangerous in their consequences: as will be evident from the following case:—

“ A LADY, the wife of a Captain in the Royal Navy, applied, in the year 1797, to a quack, for relief in a diseased breast. From the account she gave of her complaint when she first came to Bath, it certainly was a small scirrhus. This man told her it was a cancer, and immediately applied a caustic, which produced, on the fourth day, a very superficial slough of the integuments only: he then assured his patient that the cancer was *drawn out*, and she received the congratulations of her friends. This slough was preserved in spirits,

as a proof of the infallibility of his nostrum. A few days afterwards, while he was dressing the sore, the lady discovered that the lump still remained. He applied another caustic on the sore, which, from the severe pain it gave her, she compelled him to remove on the following day. Her pains now became intolerable, and her husband urged her to dismiss this illiterate man, that some person better qualified might be consulted ; but his affectionate attentions were fruitless, from the officious interference of some neighbours, whose assurances so far warped his judgment, as to persuade him that this man possessed very superior abilities in cases of this kind. She was, some weeks afterwards, tortured by a third caustic : from that time the sore became offensive, and spread rapidly with reverted edges ; and from the whole surface of the sore, fungous excrescences began to arise which were partially destroyed by caustics, or cut off by scissars. Under these alarming circumstances, he still promised a perfect cure, if (to use his own expression) her resolution and strength could hold out a few weeks longer ; but a profuse hæmorrhage took place, which confounded her doctor, as he confessed and expressed himself unacquainted with the means of stopping bleeding vessels. Alarmed at her situation from this occurrence, and being also in a salivation from some mercurial medicines,

which had been administered for several weeks before, to subdue this cancerous disposition, application was made to me, when her case was truly deplorable.

“ My only hope was to mitigate her sufferings by opiates, the application of carbonic acid gas to the breast, and by giving sulphur internally to correct the effects of mercury, and to give a proper temperament of body. I also interdicted her allowance of wine, and enforced a light nutritive diet. These intentions were generally answered, but did not essentially recruit her strength, as she soon died tabid, without any degree of uneasiness.”

The progress of a scirrhus may be retarded by occasional evacuants, assisted by a proper diet, and a careful abstinence from every thing which might increase arterial action; for where the constitution is delicate and the general habit irritable, an increased arterial action, by whatever means excited, will surprisingly exasperate the state of a scirrhus.

I have been very respectably informed, that two women, who were unfortunately placed under the treatment of a quack, were by him re-

commended, whilst the caustics remained on their breasts, to drink freely of spirits to counteract sensibility; which caused a continued state of slight intoxication, succeeded by convulsions, that carried them off in a few days.

When it is determined that extirpation is to take place, it should be effected by the knife, in preference to any caustic composition; and I shall advance such reasons as, I trust, will acquit me of prejudice. The action of every caustic is infinitely more intolerable than the temporary pain given by the knife, especially when the tumour is large and deeply seated; more substance is destroyed by them than necessary for its removal, independent of the great probability of leaving some diseased part behind, exclusive of their exciting another diseased action, superadded to the arterial action of the original disease; and after having partially effected their office, they leave the sore exposed, with an uneven surface, in a very irritable state for many weeks, and sometimes months. But I might positively assert, that repeated caustics will not destroy the whole substance of a deep-seated scirrhus; nor can it be supposed that they are capable of drawing out the diseased parts, if a due exercise be made of our own reason.

But as the treatment of scirrhus tumours and

cancers of the breast by caustics or plasters is now pursued by ignorant and daring empirics, I anxiously entreat the unfortunate to examine with scrupulous nicety the result of their practice, and not receive as real facts the positive assertions which are made, however strongly certified; that reason and truth may be supported, and base impositions (countenanced by credulity) be detected.

Thirty years ago, it was the general practice with surgeons, in the operation for scirrhus tumours of the breast, to make a large double incision, to have a riddance of a supposed superfluous quantity of integuments; the wound was then filled with dry lint, and allowed to remain several days, which certainly distended the affected part, and added considerably to the attendant inflammation; the wound was afterwards slowly healed by granulations. During my attendance at St. Thomas's Hospital, London, I addressed the late Mr. Else (whose abilities were highly respected by those who knew him) on this subject, and presumed to offer some reasons for employing the single incision only. First, that some pain might be avoided; and secondly, that the wound might, in much less time, be healed by the first intention.

In some different operations at that period, the

integuments were carefully preserved, and why they were not in operations on the breast, I could not conceive. Yet no practical writer on this subject, or operator at that time, had been sufficiently attentive to this interesting circumstance; for it is evident to me, that in few operations whatever, (that of the testis excepted,) the integuments cannot afford us more assistance. Every well-informed surgeon knows what is meant by the union of parts by the first intention; a kind office nature is ever ready to perform for us, if she meet with no opposition; and we ought to recollect, that the integuments, although they may appear flaccid and superfluous, still possess a contractile power, and will, if brought very smoothly over the wound, and properly retained there, readily recover their tonic properties, and will unite with the parts they were intended to cover, as also to each other, if no extraneous body intervene. I wish to be understood, that this process should be adopted only where the integuments do not partake of the original disease; which unfavourable occurrence may be readily discovered by their adhesion to the tumour, indurated state, discolouration, or any other unhealthy appearance; under this circumstance, it will be requisite and proper to employ the double incision.

The first attempt to improve this operation was by the crucial incision, to preserve the integuments : but this method creates a very considerable degree of pain, and prolongs the operation : where the integuments are not attached or diseased, it must be unnecessary ; and where they are, it should not be adopted, for reasons which I have just advanced—for these flaps or pendulous substances cannot always be so conveniently disposed of as could be wished ; but were they managed with the best possible address, they would not allow such advantages as are evident by the single incision. It is sincerely to be lamented, that the operation by the knife should be so much dreaded by patients, and that their fears should impel them to hope for relief from illiterate impostors ; who, whilst they traduce those practitioners, who use the only rational means to effect a cure, ignorantly employ remedies infinitely more severe, tedious, dangerous, and fallacious. For in the early stages of this complaint, where extirpation has taken place, the patient has always experienced infinitely less pain than had been expected ; because the breast, from its peculiar structure, having a very considerable quantity of adipose membrane, is more devoid of muscular fibres (with which the nerves always associate) than any other part of the human frame : consequently, the pain experienced

under this operation is truly much less than had been supposed, notwithstanding the extreme delicacy of the parts ; and could an appeal be made with propriety to those ladies who have undergone it, they would cheerfully confirm my assertion.

For the performance of the operation, it will be needless to describe any particular situation in which the patient should be placed. But having her conveniently seated on a stool, allowing her to recline against an attendant, with necessary caution against sudden opposition, the arm being placed a little backwards, that the skin may not be in a flaccid state, an incision should be made, either transversely or longitudinally, as circumstances may require, through the skin a little beyond the extremities of the tumour, which should be detached on each side from the adipose membrane, then place the left hand to support the tumour, employing the fore-finger to direct the knife, and to ascertain the extent of the diseased mass, which should be removed with as much of the adipose membrane as is attached to it ; an assistant's fingers must be placed on the mouths of any arterial branches which may be divided, till they can be secured by ligatures. The blood is then to be cleared from the wound, the integuments are to be brought smoothly into contact with the part intended to be covered, and

confined by slips of adhesive plaster, over which some dry lint is to be placed, (that the plasters may not be disengaged by any dressings of an unctuous quality,) and bound on by a fine flannel double-headed roller. To make it sit perfectly easy, and capable of suspending the lower part of the breast, it must be applied with some address, particularly when the incision is made transversely. I give a preference to the longitudinal incision, where it can be conveniently made, as I think the integuments can be more easily brought into contact, with an equal facility for securing them, and a dependent drain is obtained for that discharge which always takes place for some days.

That adhesion will readily take place betwixt parts recently divided, is now generally known; and in some instances, if the parts be constituted of different substances, there can be no doubt, after what my late friend Mr. John Hunter has proved respecting inflammatory exudation; and it is evident, that nature is always disposed to produce this adhesive inflammation, where the constitution is good, if not opposed by our too officious treatment. After the patient is in bed, with the arm placed in a relaxed position, and kept free from motion on a pillow, I generally order a slight anodyne to be taken, and recom-

mend a light nutritive diet, not choosing to allow animal food or wine till after the first or second dressing, (an interval of four or five days;) proper attention should also be paid to the state of the bowels. Should much discharge be found lodged under the lips of the incision, it must be slightly pressed out, and wiped off with a soft sponge, which may be conveniently done in the interstices of the sticking plasters. The greatest care must be taken, that the lower part of the breast be properly supported by an attendant's hand during the dressing, and afterwards secured by a proper application of the roller, lest by its gravity it should destroy that feeble union which has just been formed. Let the slips of adhesive plaster be renewed daily, over which any mild dressing may be applied, till the breast be perfectly healed.

These minute circumstances may appear trivial to a superficial reader; but professional sagacity will duly appreciate their value. Whenever I have employed the single incision only, the patients have been perfectly well in ten or twelve days, frequently in much less time; and in no single instance has a return of the complaint come to my knowledge. When the vessels of the integuments have a diseased action, as may be known by a discolouration and hardness of the

skin, with frequently a varicose state of the veins, and an attachment to the tumour, as no diseased part should be allowed to remain, the double incision is absolutely necessary, and may be easily done without much prolonging the operation, or increasing the pain to a considerable degree, and the wound may generally be covered by the integuments. But the least force should never be used to bring them into contact, as there is not any danger to be apprehended from having an exposed surface to heal, even of considerable extent; for if the integuments are forcibly distended, it must reasonably be expected that they will slough, and the sore will become more extensive and troublesome. My dressings on these occasions, till the granulations require more detergent applications, are very simple; such as, white wax dissolved in pure oil by a very moderate degree of heat. But as most surgeons have their favourite dressings, I shall not presume to enforce the use of my own.

Several systematic writers on this subject have recommended issues to be introduced before the sore is quite healed; especially, if the scirrhus affection was conceived to originate from any peculiar determination, in consequence of a redundancy of fluids in the system, either from a suppression of the menses, or any other cause:

and that drains should be kept open as near as possible to the part from whence the tumour had been extirpated, with a view to depurate the constitution. But as I am convinced that these affections are, in the early stages, merely local, and that extirpation at a proper time will effectually remove them, it must be superfluous to tease the patient with unnecessary operations, attended with additional pain and trouble: and if it could be supposed, that the constitution was immediately concerned or affected in consequence of this complaint; it must certainly be expected that the irritation attendant on an issue, if directed on or near the old seat of a cancerous sore, will be productive of the greatest mischief. In my opinion, extirpation and issues have not the least affinity in producing the same effect.

Having given my reasons for placing little or no dependence on medical treatment for scirrhus tumours, and pointed out the impropriety of every attempt to remove them by caustic applications, I do assure the public, that a sincere desire to be of service to society has directed my professional pursuits on this subject; and I trust that the following Cases, which are candidly related, will support my opinion, that an incipient scirrhus is

a local complaint, and ought not to be considered as a constitutional disease.

Many operations for scirrhus complaints of the breast fell under my management before the year 1780; but having no minutes of those Cases, I shall relate those that are the most interesting since that period.

CASE I.—*Sept.* 1782.

“ Mrs. A. of Dorsetshire, a married lady, twenty-six years of age, consulted me upon a complaint in her left breast. I found an ulcer on the superior part, in a very vitiated state; broader than an halfpenny, attended by a considerable inflammation which affected nearly the whole breast; and immediately underneath this ulcer a very considerable tumour, which I supposed of a scirrhus nature. She gave me the following statement:—Four years ago she accidentally discovered a small lump in her breast, but for many months disregarded it, till she felt occasionally some shooting pains, for which she was advised to wash the part with a lotion recommended by

her apothecary. A few months afterwards, she was certain that the tumour had increased, and the pains had become more severe. She was now alarmed by her situation, and was attended by her former medical friend, who attempted to destroy the tumour (at this time considerably enlarged) by caustic remedies. This painful treatment was pursued for several months. She was then advised by a physician to employ an ointment,* which was said to be imported from Holland, as an infallible remedy for cancerous ulcers: but it failing in this instance, she again allowed her friend to renew his caustics, who, by his endeavours to relieve her, had enlarged the ulcer, and produced extensive inflammation with a high degree of irritability. Under these circumstances, on her applying to me, I directed a bread poultice, made with a slight saturnine solution, to be applied in a cold state, and renewed every three hours; and also desired she would take a gentle dose of manna and salts; at the same time forbidding every thing in her diet that could possibly stimulate. After pursuing

* This ointment, I have reason to believe, was originally imported from Holland; but it is now made and sold in England at a most extravagant price. It is composed of the expressed juice of green bean-pods, honey, and cream, equal quantities. It certainly was intended as a mild dressing for ulcerated breasts, rather than as an efficacious remedy for dispersing scirrhus tumours, for which purpose it is too often employed.

this treatment a few days, the general inflammation had subsided, the state of the ulcer was in every respect better, she became tolerably easy, and earnestly entreated me to take out the lump.

“ The lymphatic glands in the axilla were enlarged by neighbouring inflammation; at least I suspected their being affected by that cause, as she had not, till within ten or twelve days, discovered any swellings there. As the ulcer was situated immediately over the body of the tumour, I encompassed it by a double incision, and then continued it single a little beyond the extremities of the scirrhus. Having detached the integuments intended to be preserved, I removed both the ulcer and tumour, with all the surrounding adipose membrane. Having secured two or three small arterial branches, and cleared the wound from the blood, I brought the detached integuments smoothly over the sore surface, and confined them with slips of sticking plaster, then covered the part with lint, and applied the bandage. The Lady walked to her bed, and had her arm supported on a pillow in a relaxed position. In the evening she took an anodyne draught, although she did not complain of much uneasiness. When I visited her on the following morning, she had slept well, and was comfortably easy,

She assured me, that she really experienced less pain by the operation, than she had suffered day by day after the ulcer had been treated by the caustic dressing. On the fourth day, I renewed the adhesive plasters, as they were rendered useless by moisture, and applied the usual dressing and bandage; two days afterwards I was convinced that the integuments were attached, as they remained smoothly in contact. At the expiration of the second week, her breast was perfectly healed, and I discontinued my attendance.

“ In the year 1797, this lady's health was good, and her breast perfectly well, as at that time she brought her youngest daughter to Bath for my advice.”

CASE II.—*Oct.* 1782.

“ M. B., a single woman, forty-three years of age, had a large scirrhus tumour in the superior part of her right breast, which was occasioned by a considerable blow received several years before. She had long felt severe darting pains, and as the tumour increased in size, they became so intolerable as to interrupt her rest at night; yet

she concealed her complaint from her friends till her health became evidently impaired. On the earnest solicitation of a most respectable lady, Mrs. P., of Dorsetshire, (whose munificence is universally distributed among her indigent neighbours,) I was requested to examine it. The tumour was then as large as a swan's egg, incompressibly hard, irregular on its surface, appearing like a combination of lesser tumours, and fixed; for adhesion had taken place with the integuments, also with the pectoral muscle. The vessels on the surface were varicose, and there was a slight discolouration; but I could not discover that any lymphatic glands towards the axilla were diseased: I therefore advised an immediate submission to the operation; but she firmly rejected my advice, nor could the entreaties of her best friends prevail.

“Many months afterwards, being in the neighbourhood of her residence, I inquired for this woman, and was told she was still living, but that her situation was become very deplorable. On calling on her, I was received with that transitory pleasure which is often excited by hope. She was now anxious to have it taken out, and with great eagerness pressed me to do it. The integuments which covered the body of the tu-

mour were considerably diseased; but as the axillary glands did not allow me to suspect any contamination by absorption, I could not decline the operation.

“ I made an oval incision, in a longitudinal direction, to include some suspicious integuments which I removed with the tumour, and a portion of the pectoral muscle. Having secured three arterial branches by ligatures, I waited a short time, that the minute vessels might contract, before I cleared the wound from blood: I then brought the divided parts into contact by the aid of a bandage very similar to that sometimes employed for the hare lip, but much stronger, and as wide as circumstances required. I put some lint spread with the white ointment over that part of her breast, and ordered her to bed, where the arm was kept in a relaxed position, having the elbow supported on a pillow. In the evening she took an anodyne draught—and on the following morning seemed much refreshed by a good night's rest: said she felt very little uneasiness, and appeared cheerful. On the fourth day, I removed the lint dressing, pressed out a little bloody discharge, (the bandage being allowed to remain on,) cleansed the lips of the wound with a soft sponge, and then applied a tow plaster spread with the ointment. Two days afterwards I again

examined her breast, when the discharge was less considerable, good in colour and consistence : she now had sufficient natural sleep, and ate her food with an appetite. From this time I had her breast dressed every day ; and on the eleventh from the operation, an union of the parts had taken place so completely, that I laid aside the bandage, and substituted slips of adhesive plaster, (by way of precaution,) and allowed her to walk where she wished, (having her arm in a sling,) to recruit her strength and health. On the eighteenth day she was perfectly well."

CASE III.—*May 1783.*

THE following Case is related, not because there are any extraordinary circumstances, but merely to shew that the male beast, on receiving an injury, may generate a scirrhus, with every attendant symptom of those to which women are more generally subject:—

" Mr. W. S., a very muscular thin man, twenty-seven years of age, received a blow on his left breast by the horn of a vicious bull, without any laceration of the integuments. He imme-

diately, by the advice of his apothecary, lost some blood from the arm, and for some days fomented the part, to reduce the swelling and lessen the inflammation that ensued ; which apparently soon yielded to the precautions taken, and he thought no more of the accident.

“ Twelve months afterwards he discovered an uncommon knob, as he expressed it, in that breast, which soon afterwards gave him some darting pains ; but not being aware of any disagreeable consequences, he did not apply for medical assistance till the tumour became considerably larger. It was near three years after the accident before he consulted me, when I found a true scirrhus of considerable hardness, nearly as large as a common-sized lemon, but free from any attachment. As he was anxious to have it taken out, I made a single incision longitudinally over the body of the tumour, and slightly detached the integuments on each side, that I might have room to remove it, which was done with great facility, as there was very little adipose membrane. No interruption was given by the arteries, as it was necessary to secure one branch only. After waiting some minutes, I cleared the wound from blood, then brought the skin smoothly over it, and applied my bandage as in the preceding case. On the following day he sat

up, having his arm supported in a sling, was very easy, and in good spirits; yet prudently paid proper attention to keep the part in a quiet state, that no interruption should defeat my prospect of a speedy union of the parts by the first intention. I examined his breast on the fourth day, when it appeared extremely favourable; and on the seventh, I found little or no discharge, the integuments lay perfectly smooth, and I was satisfied that an union had firmly taken place. On this day I applied a fresh clean bandage; which I removed on the tenth, and substituted slips of adhesive plaster, as he returned home in the evening perfectly well, giving me his promise to refrain from any exertion with that arm for some time."

I was tempted to introduce the foregoing case, to evince how rapidly an union of parts may be produced; and I am inclined to suppose, in this instance, it was particularly owing to the very small quantity of adipose membrane. I am led to make this observation, because it seems to point out the propriety of removing as large a portion of that membrane as can be conveniently done in operations of this kind; even if it should not contain any small glands that might be suspected of disease, as from its texture it is not well adapted for cohesion; and might (espe-

cially where the quantity is considerable) frustrate our intentions.

CASE IV.---*July 1784.*

“ JANE T., a single woman, in the household of the Earl of Ilchester, twenty-eight years of age, thin and active, had for several years a swelling in her right breast, which had gradually increased, attended by lancinating pains, which latter had become extremely severe. Her complaint being mentioned to her right honourable and truly benevolent lady, she was immediately placed under my care. Her health was evidently impaired, (although her menses continued regular,) and apprehensions of a cancer had much depressed her spirits. I found a scirrhus tumour nearly as large as a common lemon, situated in the lower part of the breast, very hard and slightly attached to the integuments, which were of a dusky brown colour. I hinted the necessity of an operation, and she eagerly desired I would allow her to submit to it on the following morning: but as she was fatigued by travelling many miles that day on horseback, I thought proper to defer it a day or two, that she might recover from the effects of her journey.

“ I made a double longitudinal incision, nearly two inches wide in the centre, to include some suspicious integuments, and brought it to an obtuse angle a little beyond the extremities of the tumour. I then detached the skin I intended to preserve, which gave me an opportunity of feeling the tumour distinctly, so that I easily removed it with the surrounding adipose membrane, and as much of the integuments as were attached to it. After having secured the orifices of two arterial branches, and cleaned the wound from blood, I had a distinct view of a considerable portion of the pectoralis major muscle. I then brought the skin in contact over the wound, and applied the bandage. She was ordered to bed, and I saw that her arm was properly supported; but on calling to see her in the evening, I found her actually employing it in repairing some part of her dress. I made her sensible of her unwarrantable deviation from my advice, but I had no reason afterwards to charge her with imprudence. On the fourth day I examined her breast, when the surface appeared smooth, and free from any extra tension, with very little discharge; and on the eighth the parts were attached, and the lips of the wound perfectly united, when I exchanged the bandage for slips of adhesive plaster, as more convenient to her. On the fourteenth day she returned home well.”

CASE V.---Sept. 1784.

“ Mrs. D., a widow lady, forty years of age, of a spare habit and tender constitution, became my patient for a scirrhus tumour in the lower part of her left breast. She told me, that six or seven years before this time, she had discovered a small round lump; but as it gave her no uneasiness, she did not apply for medical assistance; and it probably would have long remained in that indolent state, if she had not accidentally received a blow on that part in getting over a gate. Some months after this accident, she complained occasionally of a slight stinging pain, and eventually became very sensible of severe darting sensations. During this time, the tumour considerably increased in size, for which her family-surgeon prescribed the *cicuta*; but it did not restrain the progress of the disease, or even alleviate her pains. He then had recourse to discutient cataplasms, with as little success. The usual periodical discharges had ceased two years. When I saw her, the tumour was in shape like a swan's egg, with the smaller end uppermost, and free from any adhesion with the integuments or pectoral muscle; but I discovered several enlarged lymphatic glands between the tumour and axilla, yet free

from any diseased action or tenderness when compressed. Observing that her health appeared to be much more impaired than could be reasonably attributed to the bare existence of a scirrhus, I inferred that the state of the lymphatics was produced by debility, and could not suppose that the habit was already contaminated ; therefore I proposed the operation, which the lady acquiesced in.

“ I made a longitudinal incision over the body of the tumour, and detached the skin a small distance on each side, that I might grasp it with facility, and readily remove it. The arterial branches being secured, I waited some time that the orifices of the minute vessels might close, before I cleared the blood from the wound ; the divided parts were then brought into contact, and secured by the bandage conveniently adapted for that purpose, when the longitudinal incision is made. The lady retired to her bed, where I desired she would remain a few days, having her arm properly supported on a pillow. In the evening she took eighteen drops of laudanum, and had a comfortable night ; for several succeeding nights she had sufficient rest without the aid of an opiate. On the third day from the operation, there was a little thin discharge, her breast was very easy and free from tension. Three days after, the dis-

charge was very inconsiderable, and of a better consistence. I now desired she would take a decoction of the bark, made warm by the tincture, three times a day, which soon recruited her strength and spirits; which also accelerated my intentions as to her breast, as it was perfectly well on the thirteenth day. I recommended a perseverance with her medicine for several weeks, which she took with great amendment to her general health; and I was afterwards informed, that the menses had returned and continued regular; also that the knobs, as she termed them, (meaning the disease of the lymphatic glands,) were gone."

Many subsequent cases have convinced me, that enlarged lymphatic glands may be found in the same breast, that is the seat of a true scirrhus, without their having any cancerous disposition, (particularly in very debilitated habits,) which will subside, and become healthy as soon as the constitution recovers its usual vigour*.

* Mr. Sharpe, in his *Treatise on the Operations of Surgery*, page 122, eleventh edition, says, "when a scirrhus is attended
 " with knots in the arm-pit, no service can be done by the operation, unless the knots be taken away; for there is no sort
 " of dependence to be laid on their subsiding by the discharge
 " of the wound of the breast---the possibility of extirpating
 " these knots without wounding the great vessels is very much
 " doubted by surgeons; but I have often done it, when they

To elucidate this fact, I shall break the regular succession of cases, to introduce one which will confirm the preceding observation respecting enlarged lymphatics without any disposition towards a cancerous tendency.

CASE VI.--*July 1792.*

" A young woman, twenty six years of age, a lady's-maid, was admitted into the hospital at Bath, for a true scirrhus in her left breast. She had discovered a tumour there nearly three years before, but felt no great uneasiness till within the last twelve months ; during which period she had daily experienced several severe darting pains, which became more so as the tumour increased. Her health was impaired, and her spirits much depressed.

" have been loose and distinct." If these knots or lymphatic glands are fixed and hard, with due reference to the malignant state of the scirrhus, they certainly lead one to suspect that contamination has taken place ; but then extirpation of the scirrhus, as well as of the lymphatic glands, should be declined. But when he removed them with success, I suspected that their being affected was from a cause which I have just mentioned, and that they would have recovered their healthy state by a removal of the scirrhus ; not by the discharge from the wound, but by removing a diseased action on the adjoining parts, or more probably, by invigorating the constitution.

" This case, on a consultation, was deemed a proper one for the operation ; and as she was the first patient of this class received by that laudable institution, many of the Governors expressed a desire of attending the operation. Some small indurated glands were observed in the cellular membrane of the breast near the axilla ; but as I did not think they were in any way connected with, or consequent on, the state of the scirrhus, they were disregarded. The tumour was situated in the inferior part of the breast, round in form, and nearly of the size of a pot orange.

" I made a transverse incision more than four inches long, just through the skin, over the body of the tumour ; which I separated above and below, and then detached it with all the surrounding adipose membrane, leaving (by choice) a part of the pectoral muscle bare, as the integuments will more readily unite to it when none of this membrane intervenes. She was dressed in the usual manner, and the double-headed roller was applied to suspend the lower part of the breast ; the usual precautions were observed to keep the arm in a quiet state, and in the evening she took an anodyne draught. The next day I heard that she had slept comfortably, and was then very easy. Four days afterwards I examined her breast, in the presence of many of the Go-

vernors and several medical gentlemen who had attended the operation, when there did not appear to be the least tension, or any symptom of inflammation on the breast: the integuments lay smoothly with their lips in contact, and she declared herself quite free from any uneasiness. Indeed she appeared to those gentlemen to have no more wound than a slight scratch across the breast; so that some of them inquired *seriously*, if this were the young woman whose operation they had attended. On the thirteenth day she returned her thanks, and left the hospital perfectly well.

“ In the course of a few months, she again applied for a painful enlargement of the capsular ligament of her right knee, and was re-admitted a patient. Warm fomentations, with a solution of the crude *sal. ammoniac*, were employed, which soon reduced it, and she again went out well.

“ Six months afterwards, she again returned much alarmed by lumps in her right breast, with a considerable fulness and general tenderness; her strength was greatly impaired, her complexion wan, and her appetite had almost deserted her. To these symptoms was added a considerable and constant *fluor albus*. A consultation was held—the preceding scirrhus of one breast,

under the present circumstances, rendered this affection of the other of a suspicious nature; yet the indefinite form of this fresh swelling, joined to the general state of her health, led to a belief of its being connected with the latter; and a course of steel medicines, prescribed for her by Dr. Ewart, whose patient she now became, soon succeeded in restoring her general health, and thereby removing the enlargement in her right breast, and the indurated lymphatic glands in the left."

CASE VII.—1790.

"Mrs. C., thirty-eight years of age, of a full habit and good constitution, applied to me on account of a complaint in her right breast. She had for several years, occasionally, felt some darting pains, which proceeded from a large hard lump, as she termed it. During all this time her health was good, in every respect, and her menstrual discharges regular. She attributed this lump to an injury she had received on her breast. A medical gentleman had been frequently consulted, who gave her a mercurial medicine as an alterative; and afterwards insisted on a long per-

severance with the *cicuta*, but without effecting any amendment. An attempt was then made to disperse it, or produce suppuration by poultices, which had been constantly employed for many weeks. At last, wearied by disappointments, she applied to a female quack for relief. By this woman's assurances of an effectual cure without cutting, she was prevailed on to submit to a caustic plaster, which gave intolerable pain, and was allowed to remain on her breast five or six days, when a slight slough was produced; which was ostentatiously preserved in spirits, as an incontrovertible proof that the cancer was drawn out.

“ The lady was prevailed on to believe she was now free of her original complaint; by too great credulity she was easily duped; and actually certified this pleasing circumstance to her friends. But, alas! long before the sore began to heal, she was convinced that the tumour yet remained. Another plaster was strongly enforced, as the cancer was not effectually destroyed; but contrary to the disposition of many who are so unfortunate as to be deluded by quacks, she now employed her reason, and avoided a longer treatment which ought to be relinquished by every person of common sense, humanity, and honesty. A few months afterwards she consulted me, when I found a genuine scirrhus of an oblong firm

gure, considerably larger than a common egg, extremely hard, but free from any adhesion. I discovered two enlarged lymphatic glands between the tumour and the axilla, which the lady said were lately formed, and probably by the great irritation excited by the action of the caustic; therefore I disregarded them, and recommended an early submission to the operation; and she cheerfully yielded to my opinion.

“ I made a double incision transversely, to include the skin which was rendered hard in consequence of the caustic, and then continued it by a single line a little beyond the extremities of the tumour, to get room for detaching it with the surrounding adipose membrane. After securing the orifices of two small arteries, and clearing the wound from blood, the divided parts were brought into contact, and confined by slips of adhesive plaster, and the breast was properly supported by the double-headed roller. In the evening she took a mild opiate, and that night slept comfortably. On the fourth day from the operation I examined her breast, and found the integuments smooth, with their lips in contact. Her breast was afterwards dressed every day, and on the fourteenth she returned home well; and perfectly satisfied that her late alarming complaint was completely subdued with very little

pain or trouble. I saw this lady several years afterwards in perfect health."

CASE VIII.—1784.

" Mrs. H., fifty-five years of age, of a spare habit and delicate constitution, consulted me upon a complaint in her left breast. For the last five years, she informed me her health had declined, and her menstrual discharges entirely ceased: that several years before that time she had discovered a hard tumour, which was not painful during the early stages, but afterwards attended with frequent darting sensations, which seemed stationary for two or three years, and then had increased and become much more troublesome. I found a scirrhus incompressibly hard, just below the nipple, the size of a common lemon, but perfectly detached from the pectoral muscle and from the integuments, which had a healthy appearance. She complained of extreme tenderness in the part affected; some indurated lymphatic glands were discovered towards the axilla, which, combined with the great sensibility of the scirrhus, seemed to indicate a can-

cerous disposition ; but a long and attentive practice has convinced me, that these circumstances, apparently doubtful, should not destroy our hopes of success, or deter us from the operation : and I must again repeat, that these glands will sometimes become enlarged, even where an inveterate scirrhus does exist, without their being contaminated, or in any respect connected with the original disease. I have been induced to give a particular description of this case, as I suspected that suppuration had partially commenced in the substance of the scirrhus, from its great sensibility when compressed ; yet I did not hesitate in offering the operation, if it should immediately take place.

“ The lady submitted to my opinion with great firmness of mind ; and afterwards expressed herself much gratified, and more surprised, that she had suffered so little pain. I was anxious to examine this tumour, and found several cells towards the centre, filled with a viscid yellowish matter, without their appearing to have any communication with each other ; but the surface was free from suppuration, and extremely hard. On the fifteenth day, her breast was perfectly healed, and she returned home with great satisfaction. Previous to that time, I had desired her

to take bark draughts, and urged her to pursue the same course for two or three weeks. She afterwards informed me that the small lumps were no longer perceptible, and that her health was perfectly restored."

CASE IX.—1786.

"Miss T., thirty-three years of age, with a good constitution, consulted me upon a complaint in her left breast. She had for several years been sensible of a swelling there, attended occasionally by slight shooting pains, which had given her reason to believe originated from a bruise; yet during the whole time the menses were regular. Many applications had been employed to disperse it by her surgeon, who had also given her the *cicuta* for a considerable time, without preventing its increase. She was then put under a course of mercurial alteratives without receiving any benefit, and had lately taken calcined sponge with as little success. I found a scirrhus which deviated much from the usual shape, having a stricture in the middle, as if two tumours, nearly the size of hens' eggs, were slightly united, ex-

treinely hard, but movable together. Under these circumstances, I advised the operation, and the lady eagerly asked me by what means: on my saying by the knife, she rejected my advice; for some of her female friends had assured her, that a certain plaster, known to a few only, would most effectually remove the diseased part in a few days, without any incision or pain, and lamented that I did not know the secret. I explained the nature of the nostrums generally employed, with their usual effects, without being able to remove her prejudices.

“ Six months afterwards, a very seriously unfortunate circumstance that resulted to one of her acquaintance, in consequence of the application of these slowly acting caustics, by a female quack, determined her to submit to my advice. I now found that the tumour had very considerably increased, attended with exquisite sensibility by even the slightest touch. She now held in abhorrence the plasters which before had excited her admiration, and earnestly entreated me to take it out. She underwent the operation of extirpation by the single transverse incision, and afterwards declared the pain trifling to what her imagination had led her to expect. In twelve days she returned home perfectly well.”

CASE X.—1786.

“ Mrs. B., an unmarried lady, 49 years of age, of a good constitution, desired my assistance for a complaint in her right breast. She had for several years been alarmed by a tumour which had lately gradually increased, attended by frequent darting pains. A medical gentleman had employed discutient applications, and for some time had persisted in the repetition of considerable doses of the *cicuta*, but could not check the progress of the disease. During the last six months, the tumour had more rapidly increased, and her pains became more severe than usual; she also discovered two other small swellings in her breast.

“ Being now seriously alarmed at her situation, she stated it to some of her female friends; one of whom instantly recommended a quack, whom she did not know, but whose great abilities had long been proclaimed by hand-bills and public advertisements, with the persuasive assurance, that this person could effect a cure without incision or pain, by a peculiar mode of treatment.

She applied immediately to him, who confirmed all that her friend had promised : and to enforce the imposition, produced some sloughs, which were preserved in spirits, as cancers extracted from the breasts of his patients. His artifice lulled her mind into a state of security, and, confident of relief, she permitted him to apply his plaster, which remained on the part affected several days, not without the usual attendant pain ; and an eschar was produced, which, being separated by the common process of nature, was declared to be the diseased part ; and the lady received the congratulations of her friends.

“ Soon after she had been released from the effects of this remedy, the old darting pains recurred with aggravated violence, and she was soon convinced that the tumour was not drawn out, or even diminished. On expressing her dissatisfaction, another caustic was recommended to complete the cure ; but the lady had suffered so much by the former, that she dreaded a repetition. Her embarrassment now led her to the following rational reflections :—

“ Did those small pieces of flesh which she had seen in spirits constitute real cancers ? If really so, her complaint must be of a more malignant nature than all others, as it would not yield to the same treatment which had happily relieved others.

“ The dressings employed to heal the sore gave her great uneasiness, and determined her to apply to her former surgeon. Under his care, the wound was soon healed ; yet she had to lament her unfortunate condition, and was determined to submit to her hopeless fate with firmness. Some months afterwards, she became acquainted with a lady who had been my patient for a similar complaint ; by whose favourable account of the operation, she was induced to consult me.

“ I found a scirrhus of an oblong shape, in circumference about the size of a common lemon, free from any attachment to the pectoral muscle or integuments, except such as were produced by the cicatrix : two lymphatic glands in the breast towards the axilla were enlarged, but not painful when slightly compressed. Her health did not seem to be impaired, although her spirits were much depressed. I had no hesitation in declaring my opinion in favour of the operation, to which the lady readily assented.

“ As the cicatrix on the breast had no other affinity with the scirrhus than by the common connecting medium, I made a very slight transverse double incision through the skin, merely to include the cicatrix ; as I suspected it would not readily unite to the part intended to be covered,

which I separated slightly on each side from the adipose membrane, and then detached the scirrhous with as much of that membrane as adhered to it. The lady bore the operation with great composure of mind, and affirmed, that she would rather undergo a repetition, than submit to another plaster, meaning the caustic. On the following day she was free from any degree of pain, and expressed a hope that I would allow her to quit her bed, and associate with her friends. Being informed that it was indispensably necessary she should remain for some days in a perfectly quiescent state, she readily submitted to my injunctions. On the fourth day, the integuments lay evenly, and appeared to be attached: on the seventh, a firm union had evidently taken place between the parts which had been divided; and on the sixteenth she returned home perfectly well."

CASE XI.

" Mrs. S., from Berkshire, a most respectable married lady, thirty-three years of age, came to Bath to consult me on a complaint in her left breast, which she supposed had originated in

consequence of a bruise received several years before. I found a scirrhus nearly the size of a hen's egg, extremely hard, but movable: I also discovered two enlarged lymphatic glands near it. During the last eighteen months, she had occasionally felt very severe darting pains, and had noticed its increase. As extirpation was absolutely necessary to protect her from the effects of a cancer at some future time, I advised an early submission to it; when she desired me to perform it on the following morning, as she had made up her mind to submit to it; but some professional engagements obliged me to defer it for two days. When I waited on her, she was attended by a woman only, having sent a friend, the Hon. Miss F., and a female servant, purposely out of the house; and positively refused having any other attendant. I had no assistant with me; and thus circumstanced, I was prevailed on to rely, *perhaps too much*, on her resolution.

“ She bore the operation with great firmness of mind, and in the evening took a slight anodyne, and passed the night comfortably. On the following morning she was easy and very cheerful. On the fourth day I examined her breast, and found it free from tension; the integuments lay smoothly, and exhibited no more wound than a scratch, which she viewed attentively by the

assistance of a glass. Her breast was now dressed every day ; and on the eighth from the operation, I attended her, with a party of her friends, to the theatre : on the thirteenth she was perfectly well.

“ She remained some time at Bath to recruit her health, which was effected by the bark ; and I had the satisfaction of knowing that the enlarged lymphatics had recovered their healthy state.”

CASE XII.—*Sept. 1793.*

“ Mrs D, a very respectable married lady from Dorsetshire, sixty-four years of age, came to Bath on account of a complaint in her left breast, which had given her much uneasiness for many years. I found it was a scirrhus as large as an orange, extremely hard, and in a state of acute sensibility, especially when compressed ; the integuments did not appear to be diseased, nor were they attached to the tumour ; yet several enlarged lymphatic glands were clearly distinguishable. Her general health appeared good, but by the severity of the darting pains her spi-

rits were much depressed. As it was probable that the diseased state of the scirrhus might soon be communicated to the integuments, or that ulceration would soon take place in its substance, and the lymphatics contaminated by absorption, I proposed her immediate submission to its extirpation. The lady said, that as she came for my opinion, she should be governed by my advice.

“ I made a long transverse incision through the integuments, which I slightly detached on each side from the adipose membrane, and then proceeded to detach the tumour with all that surrounding membrane from the pectoral muscle, which produced a very healthy appearance. My friend, Mr. Creaser, (whose assistance I received on this and many other occasions), expeditiously secured the arteries, and the divided parts were soon afterwards brought into contact, and properly confined. As soon as she was in bed, I placed the arm in an easy position; in the evening she took an anodyne draught, and passed the night comfortably, with much sleep. She now became cheerful, and relished her food, expressing a sensation of stiffness only about her breast. On the fifth morning, when I examined the breast, it was free from tension. Her son, who is a very respectable

clergyman in Wiltshire, was much surprised at the minuteness of the wound, from whence I had taken that considerable mass which he saw macerating in water, as little more than a scratch was discoverable.

“ This lady was perfectly well within a month ; and I was afterwards informed, that the enlargement of the lymphatic glands entirely subsided soon after her return from Bath.”

CASE XIII.—*March 1796.*

“ Miss F., from Staffordshire, a single lady, forty years of age, of a spare habit and tender constitution, came to Bath for Dr. Parry’s advice ; who was informed of a tumour in her breast, and proposed my being consulted on her case. This tumour had existed several years without giving much uneasiness ; but for some months past had become very painful, and increased in size considerably larger than a hen’s egg. I found it a scirrhus, perfectly free from any attachment ; yet there were two lymphatic glands slightly enlarged, but not painful when

compressed. Under these circumstances, the propriety of the operation for the scirrhus tumour became a subject for discussion; whether the glands were not to be, at the same time, extirpated. I related many similar cases, wherein I had been uniformly successful. Upon due consideration of the lady's constitution, which evidently was in a debilitated state, I supposed that the disease of the lymphatics was not consequent on the progress of the scirrhus, but was influenced by the general habit. Dr. Parry, whose professional sagacity is highly respectable, admitted that the diseased glands might be taken out at any future period, should it be deemed necessary.

“ The lady was made sensible of our opinions, and readily assented to the operation for the scirrhus; which took place on the following morning. The breast was perfectly well in fourteen days, and she left Bath with great satisfaction.

“ As a suppression of the menses had taken place, most evidently by the want of energy in the constitution, a course of tonic medicines were advised and taken, which soon had the intended effect, and restored her health. Some months afterwards I saw her at Cheltenham, and desired

permission to examine her breast, when I found the enlargement of the lymphatic glands was completely reduced, and her health perfectly good.

“ Dr. Parry obligingly acquainted me, that he saw her in May 18, 1803, free from complaint.”

CASE XIV.—*Nov. 1796.*

“ Mrs. S., wife of the Rev. S. S., of Bath, thirty-eight years of age, of a tender constitution and nervous temperament, had long concealed a tumour in her breast, till it became extremely painful, attended by severe darting sensations. I found a scirrhus, extremely hard, as large as a swan’s egg, and slightly movable; there were also some enlarged lymphatic glands. She was much alarmed at my declaring the necessity for an operation; but after reflecting on her situation a few days, she cheerfully yielded to my advice.

“ I made a transverse incision of considerable extent, just through the integuments, which I slightly detached on each side, and then removed

the tumour with what cellular membrane adhered to it. The lady bore the operation with firmness of mind; and after the breast was bound up, she declared it infinitely less painful than she had expected. In the evening she took an anodyne, and had a comfortable night. On the three following days she was free from uneasiness, but said that her breast was rather uncomfortable from the dressing sticking so closely, and pressed me to change it.

“ On the fourth day, I examined the breast, and found it free from any degree of tension, the integuments lay smoothly in contact, and the discharge was inconsiderable. After the fresh dressing had been applied, she was very comfortable; and I allowed her to sit up, having her arm supported in a sling. Her breast was afterwards dressed every day, and on the fourteenth was perfectly healed. I recommended a decoction of the bark with valerian to be taken for some time, which recruited her health and spirits. Some months afterwards, I desired permission to examine the breast, and was happy to find the lymphatics had recovered their healthy state.”

CASE XV.—*Nov.* 1799.

“ A lady of fortune, sixty years of age, of a full habit, with good health, came from Staffordshire to Bath, with a large scirrhus tumour in her left breast. She recollected having received a severe bruise on that part many years since; but neither felt uneasiness, nor discovered any lump till within the last three years, when she was occasionally alarmed by darting sensations; for which her physician and family surgeon were frequently consulted, who recommended alterative medicines, discutient applications, and often had a great number of leeches employed: but these remedies did not produce any mitigation of symptoms, or diminution of the tumour. The lump, she said, had considerably, but gradually, increased during the last twelve months, and her pains were become extremely severe. I found a scirrhus in the superior part of the breast, considerably large and extremely hard, but unattached: and some indurated lymphatic glands were discovered in the neighbouring cellular membrane. Under these circumstances, I had no hesitation in proposing the operation, and my opinion was supported by

Dr. Haygarth, as medical treatment had not afforded any relief. I made a longitudinal incision over the tumour, which was nearly oval in shape, in preference to a transverse one, that any discharge might be conveniently drained off: and this advantage, where the breast is large, is of some importance. Dr. Haygarth expressed much gratification by the operation, as he had conceived it would have been of much longer duration: he also congratulated the lady, who bore it with pleasing firmness, on being released from a most seriously alarming complaint.

“ By the removal of a considerable quantity of cellular membrane, which contained several enlarged lymphatics, it was in my power to attach the integuments to the pectoral muscle: confident that an inflammatory state, to which they would be mutually disposed, must readily produce an adhesion.

“ I had no interruptions in healing the wound, and she soon returned home with great satisfaction.

“ Extreme caution had made this lady's case precarious, even should she submit to extirpation, as some enlarged lymphatic glands were observed before she became my patient. Such circum-

stances should be considered with great attention ; that we might not incautiously subject a patient to future misery, nor anticipate misfortunes which are not contingent.

“ Twelve months after her return to the country, I had the pleasure to hear from the lady that no lumps remained in her breast, which was perfectly free of any complaint.”

These patients were all well in May 1803, and free from any return of their old complaints.

The many cases which I have candidly related, certainly show that enlarged lymphatic glands, even where a true scirrhus existed, might derive their morbid state, either from general debility in the constitution, or, in more robust habits, from sympathy with a neighbouring diseased action, without actually partaking of cancerous contamination. But this supposition must be under certain limitations; for I have often found them evidently affected with a cancerous disposition, by absorption from an inveterate scirrhus, long before any external ulceration had taken place; they have not been unattached, and I have always observed the disease truly characteristic on the

integuments. These circumstances should engage our serious consideration.

I have sometimes attended consultations, where *scirrhi* have been found inconsiderably large, and where no indurated glands have been discoverable; yet the integuments have shown a diseased connexion by being preternaturally hard, attached to the cellular membrane, puckered, and sometimes slightly discoloured; when medical gentlemen have been induced to expect certain success by the operation; because it has been supposed, that all apparent disease might be included by the double incision. But the extent of disease cannot always be discovered, which is always more general than appearances indicate; and when affected by a cancerous disposition, however remote, will subject the patient to future misery. I am inclined to believe, that the frequent and rapid returns of the complaint are generally owing to these circumstances, as the discovery of a renewed diseased action on the integuments is very frequently made after extirpation.

“ I lately attended an operation of this kind, which was performed by a gentleman on a poor woman with an inconsiderable *scirrhus*, who never complained of much pain, nor were there any enlarged lymphatics discoverable; but the

integuments appeared to be slightly diseased, particularly about the scirrhus, over the most considerable part of the breast. He made a wide double incision, nearly circular, over the tumour, and then detached it. The integuments were afterwards brought forcibly into contact by sutures; but the ensuing inflammation, which was excited by the great tension brought on the integuments, made them sphacelate, and greatly exasperated that cancerous disposition in them, which hastened her death."

"Another poor woman was recommended as a patient to the hospital with a scirrhus in her breast, where some diseased lymphatics were discovered, and the integuments were extensively affected. This case was attentively examined by Mr. Creaser and Mr. White, surgeons belonging to the institution, who agreed with me that the operation could not afford her any relief: therefore we determined to try the effects of a treatment recommended by Dr. Boisragon, which had been found, he was respectably assured, of great service, even as a specific remedy, in cancerous affections in Ireland, when no external ulceration had taken place.

"The breast was fomented for ten hours every day, with flannels pressed hot from Goulard's sa-

turnine extract, and afterwards kept warm by some additional clothing. In two weeks we observed less tension on the integuments, the lymphatics could scarcely be discovered, but the tumour did not appear to be in the least reduced: yet she declared herself much easier than she had been for many months. As she expected that the scirrhus would have been taken out by the operation, the object of her coming into the hospital, she now became dissatisfied by this mode of treatment, and left it to place herself under the care of a gentleman who offered to extirpate it. Two months afterwards, I was told she had submitted to the operation, but that a cancerous ulcer had spread rapidly, and fungous excrescences, attended by an intolerable burning sensation, indicated her approaching fate."

How far the treatment in the hospital might have relieved her, it is impossible to determine; but it certainly did procure ease, and seemed to restrain the disease on the integuments; and probably she might have lived a few years longer, had not the complaint been exasperated in consequence of the operation.

"A few years ago I was desired to attend a consultation in the vicinity of London, on a most respectable lady of fortune, who had a scirrhus

in her breast. It was considerably large, but unattached; no indurated lymphatics were discovered, and the integuments were loose and free from disease. She complained of a preternatural heat in the tumour, and felt very severe and frequent darting pains. With these characteristic and truly alarming symptoms, I gave my opinion on the necessity of an immediate submission to the operation, as I feared that contamination might soon be communicated to the integuments, and probably to the lymphatics, as I conceived ulceration had already commenced in the substance of the scirrhus. I was gratified by having my opinion countenanced by the other gentlemen, who urged the operation; but the lady's fears compelled her to postpone it for an unlimited time.

“ Six months afterwards she came into the country in a very emaciated state, with strong hectic symptoms, and a large cancerous ulcer in her breast. I sincerely lamented her unfortunate situation, which, I believe, might have been obviated; and could only hope to mitigate her sufferings by a palliative treatment. She soon began to flatter herself with hopes of amendment, because she suffered less pain, but I observed that her strength became daily more exhausted, till she was released by death.”

Would my fair countrywomen apply to gentlemen regularly educated in the medical profession for assistance in the early state of a scirrhus, which will by neglect, or improper treatment, soon become a cancer, they might in a few days get free of a complaint, of all other maladies the most insidious and dangerous.

I however congratulate them on their present easy and elegant mode of dress, free from the unnatural and dangerous pressure of stays. I could advance many objections to this unnatural custom, especially amongst married ladies, if it would not be considered a digression from my original purpose ; but I beg leave to say, that I have extirpated a great number of scirrhus tumours which originated from that absurdity. I believe they are generated in consequence of bruises or extreme pressure, and do not arise spontaneously from any latent disposition in the constitution ; for were that the case, we should find some families particularly subject to these affections. I can truly assert, that I never had two patients for such complaints, who could claim any alliance by consanguinity.

In one hundred and eight scirrhus cases, in the early stage of the disease, where I performed the operation by the single incision,

all remained free from any return of the complaint.

In twenty one, more advanced, where some enlarged lymphatic glands were discovered, evidently from causes unconnected with scirrhus, no one had any return of the disease.

In twelve cases, where the integuments were attached to the tumour, I employed the double incision, and all remained perfectly well.

But five unhappy patients, where the integuments were considerably diseased, and lymphatic glands contaminated by absorption, after having the whole mamma removed, were afterwards obliged to yield to the ravages of the disease. They earnestly implored a chance of that assistance which humanity could not reject; although in opposition to my opinion, and professional reputation. It should be observed, that nearly all these cases had resisted medical treatment before they became the objects of my care: and I hope it will be clearly seen, that extirpation for these affections should take place in the most early stage of the disease, when it would always be successful, and would then give the patient no considerable degree of pain.

I now come to that state of this cruel disease, when neither medical nor surgical abilities can very effectually relieve the patients ; but as we ought not to resign the afflicted to all the miseries attendant on their timidity or misplaced confidence, I shall presume to offer some means to render that dreadful situation less intolerable.

The first indications of a cancerous case of the breast becoming hopeless, are ulcerations which appear on the integuments, and enlarged lymphatic glands which are not moveable. These are secondary effects ; for the disease proceeds from the body of the original tumour, and by a diseased action communicates contamination to the neighbouring parts. These ulcers are always in a very irritable state, and generally discharge a thin coloured ichor.

Every surgeon, although he may have had much experience in this line of his profession, will be aware of the many difficulties he will have to encounter with cancerous sores ; but when they are recently formed, the common ointment of wax and oil, incorporated by a very moderate degree of heat, will be found a good application, and much easier than such as have

resin, turpentine, or balsams, in their compositions. We can seldom procure such a good discharge for any considerable length of time, as we have from fresh wounds in general, because a stimulus will recommence from a variety of causes; such as, anxiety of mind, any little irregularity in diet, a costive disposition of the bowels, or even a want of due attention to keep the parts as clean as possible.

Should the discharge be thin, acrimonious, and offensive, the linseed meal poultice will be an useful application to correct preternatural heat and sensibility. The carrot poultice has also been held in estimation for these purposes; and some prefer the oatmeal poultice with yeast, from which some carbonic acid gas is extricated. But the quantity will always be inconsiderable, and partially employed; so much so, that I am inclined to suppose that the relief they afford ought to be attributed to the exclusion of the atmospheric air, rather than to the carbonic acid gas produced; for it will almost wholly escape from the sides of the poultice, without being absorbed by the sore in any considerable quantity.

When any heat or diseased action attacks the integuments round the sore, some *sac. saturn.* dissolved in water, with the addition of a small

quantity of vinegar, will be a convenient lotion, and, I think, is preferable to the common vegeto-mineral water; as we can have a more perfect solution, and ascertain its strength. Should we be so fortunate as to procure ease, and produce a better discharge, the fresh granulations may be slightly checked occasionally by a little red precipitate, finely levigated, in the simple ointment, as it will answer our intentions without exciting any irritation; but where spongy excrescences shoot, I would employ, by very slight touches, the lunar caustic in preference to any other escharotic.

Dr. Jaenisch, at Petersburg, speaks highly of a powder* which he employed on those occasions, and says, "it will always allay the preternatural heat, resist sphacelation, impede the growth of fungous flesh, and stop hæmorrhage."

It is always an unpleasant office to insinuate a doubt of what has been positively asserted, but I have reason to question any superiority this

* Take white lead three ounces, and rub it in a leaden mortar, with a pestle of the same, till it double its weight: then add, by little at a time, six ounces of Goulard's extract, and rub on till they are intimately mixed, and form a dry powder. This powder must be sprinkled on the cancerous sore every morning and evening.

powder is said to have over saturnine applications in general; and the repeated trials of it that I have correctly made, have not afforded me any advantages; and I do not conceive that any reproach can justly attach to the surgeons of our own country for having been *apparently* too inattentive to this remedy, as well as to some other *specifics*, reported to be so replete with such astonishing powers.

Arsenic seems to have been a very favourite remedy in most parts of Europe for several centuries past, and a great variety of preparations have been made with this very active medicine to cure cancerous affections by external applications; and of late years it has been given, dissolved in alkaline lixivium, as an internal remedy. Indeed a preparation of this kind has of late years been given in our own country, as a certain cure for intermittents, with success; but it has been often attended with deleterious and sometimes fatal effects. The first account which has been transmitted down to us, I believe, is from Father Comè, who recommended a powder * for cancerous ulcers, which was afterwards em-

* Cinnabar one drachm, ashes of old shoe-leather eight grains, dragon's blood twelve grains, white arsenic six grains.

ployed by Guy de Chauliac, and described in his Treatise, *Grande Chirurgie*, written in 1368.

Valescus de Taranta, in the year 1400, seems to have dreaded the very active powers of the arsenic; therefore combined it with sulphur, and employed it as a caustic composition for the destruction of cancerous complaints in general; but does not give us any one instance of his success.

For nearly three centuries it became so much neglected as to be almost discontinued in practice; when some individuals, not educated in the medical profession, resumed this remedy, which, under the specious mask of secrecy, was supported by every kind of imposition, and received by a credulous public as a most valuable acquisition in surgery.

If arsenic had been really found to be such a sovereign remedy for cancerous affections, as it has been repeatedly asserted to be in almost every state in Europe, it is to be wished that the cases had been collected and publicly produced, for the sake of humanity. But can it be supposed, that the method of treatment, which the sordid interests of individuals endeavour to keep

secret, could escape the observation, and consequent discovery, of men liberally educated, and humanely disposed?

Strumous swellings of the breast, and small encysted tumours, are easily distinguished by surgeons. Indeed it seems barely possible to mistake those affections for scirrhus tumours, all attendant symptoms being duly considered.

The advanced stages of cancer, where ulceration has taken place, become extremely painful to the miserable patient, and resist the most rational treatment which can be suggested by medical skill or surgical assistance. A proper attention to such diet as will not stimulate must be paid, and the bowels should be kept, by gentle means, moderately lax; opiates in small doses, and frequently given, will procure temporary relief. No dressings, I think, yet employed by our best surgeons, have been found to be of essential service; but such as do not stimulate, yet exclude the atmospheric air, seem best calculated to avoid irritability: and it is always necessary to keep the sores as clean as possible.

No attempt to restrain fungous excrescences can be made without exciting, *in some degree*, irrita-

bility ; therefore such as are most gentle in their effects should be preferred. These circumstances are more obstinate and distressing than any others with which a surgeon ever has to contend. He might, *in a slight degree*, palliate distress ; but cannot remove it.

“ I shall now, with much satisfaction, offer the results of some experiments with the carbonic acid gass on cancerous ulcers of the breast. I am aware that this gas has been employed for the same purposes by many gentlemen of the most respectable abilities ; but, I trust, the mode of application here described will be found more effectually convenient than any other hitherto adopted.

“ A poor woman, fifty-eight years of age, was received a patient in the hospital at Bath, June 1794, afflicted with an ulcer in the upper part of her left mamma. The breast was naturally very large. The length of the ulcer, from the superior part of it to near the nipple, was almost five inches ; and its breadth was between three and four. Its greatest depth was nearly two inches ; and from its lower end a sinus ran under the skin downwards, the extent of which, as well as the quantity of discharge from the sore, may be conceived, from her being in the habit of pressing

out of it, several times a day, from one to two table-spoonfuls of very fetid matter. The stench from the sore was at all times extremely offensive to herself and to by-standers. The whole of the ulcerated surface reflected a shining hue, without having any appearance of granulations. The ragged margins of the sore, and the substance of the mamma to the distance of nearly two inches around, but chiefly below it, were indurated, forming irregular knobs, which in many places seemed to adhere to the pectoral muscle beneath. The whole was attended with frequent darting pains, and sometimes a strong burning sensation was felt. Some small quantities of pus had been discharged from the sore, when she felt a temporary abatement of her pains. Her appetite and strength were much impaired, and her spirits were sunk by long sufferings, and despair of finding relief.

“ She recollected having received a blow on the affected breast about fourteen years before, which, in consequence, became painful and discoloured ; and the breast was ever afterwards subject to frequent shooting pains. Her account was extremely confused of her subsequent state, but we were told that she had frequently applied to medical gentlemen for assistance, some of whom recommended extirpation, and others

(probably long afterwards) dissuaded her from the operation, assuring her that her complaint was a cancer of too great extent and depth for the operation. It should be noticed, that the lymphatic glands at this time did not appear to be affected.

“ This poor woman was my patient at the infirmary, and a general consultation was held on her case ; when we were unanimously of opinion, that no relief could be obtained by extirpation. I therefore proposed the application of the carbonic acid gas to the ulcer, as it might probably afford some mitigation of her sufferings ; which idea was warmly supported by Dr. Ewart, and readily acceded to by the other medical gentlemen.

“ On the following day, Mr. White, apothecary to the hospital, happily conceived a plan for keeping it always in application with the sore, by means of a small bladder, which was to be affixed to the breast by *sticking plaster*. The neck of the bladder was cut off so as to make a circular aperture of such dimensions as to correspond nearly with the size of the ulcer of the breast. A round hole of the same size was cut in a piece of soft leather, spread with adhesive plaster, and large enough to surround the ulcer.

The cut end of the bladder was introduced through the hole in the leather, and its edges folded back and stuck to the plaster on the opposite side, forming somewhat the shape of a round hat, the plaster resembling the rim; and the bladder, when distended, the crown. In order the more effectually to secure the attachment of the bladder to the plaster, and to make it air-tight, the end had cuts round it half an inch deep, and as much from each other, to make it sit smoothly; and narrow slips of plaster were applied round their junction both within and without. The large plaster was then fixed on the mamma, the aperture in its centre, with the bladder fixed to it, being placed exactly over the ulcer, no part of which was touched by the plaster. A small orifice was made at the fundus of the bladder, sufficient to admit a tube of about a quarter of an inch in diameter, which communicated with the top of an inverted cylinder, suspended upon water, which cylinder was filled with carbonic acid gas: [*see the Plate.*] The bladder being closely squeezed, to expel the atmospheric air it contained, and the above-mentioned tube being inserted into the orifice formed to receive it, and tied by a ligature passed over the bladder, the inverted cylinder was pressed down in the water, so that the carbonic acid gas was made to rush through the tube, and

distend the bladder, which was tied above the tube, to prevent the escape of the gas. As soon as the bladder was collapsed, so as to show that much of the gas had evaporated, it was filled in the same manner as before; and this operation was repeated twice or three times a day, as it appeared necessary.

“ It is a proof of this simple apparatus fully answering its purpose, that the bladder, when filled at night, was found to contain a considerable quantity of the gas on the following morning. When the carbonic gas was thus applied to the sore, it first occasioned a sensation of coldness, which lasted for a few minutes, and was afterwards succeeded by a glowing warmth, which continued more than half an hour. The same sensations were uniformly expressed by the patient after each successive application of the gas.

“ Dr. Ewart, at the consultation, proposed a cautious use of arsenic internally; and Mr. White, who applied the air, some time afterwards procured a preparation of it, as recommended by Dr. Fowler, and gave it to the patient; but not till the smell from the sore was much less fetid, and the surface showed a disposition to granulate.

“ After a few days, she declared herself much easier, indeed she said she felt very little pain; and it was at first ascribed to the usual propensity of people to be pleased with a new remedy; but the state of the ulcer convinced us that she did not deceive herself. Each time the bladder was removed, which for some time was done twice a day, to evacuate the discharge from the sore, she was instantly sensible of pain on the admission of the atmospheric air; and never failed to find ease very soon after the carbonic acid gas was again applied.

“ In four weeks, the pain was not more uncomfortable than from a common wound of the same size; the discharge gradually lessened in quantity, and assumed the colour and consistence of mild pus; the sore was not a third part so extensive or deep, as when she first came to the hospital; the indurations in the mamma had become much softened, and were evidently dispersing. She had recovered her appetite, strength, and sleep; and was in hopes of being soon perfectly well.

“ No alteration was made in the mode of treatment till some time in August, when she was seized with diarrhoea, attended by a quick pulse, a hot skin, and inflamed tonsils. A few days af-

terwards an erysipelatous inflammation showed itself over the skin of the affected mamma, but the sore did not seem to be influenced by this affection. These symptoms seemed to be wholly unconnected with the original complaint, and continued many days. The arsenic was now discontinued, but the carbonic gas was never omitted.

“ In ten weeks from the time of her being admitted a patient, the sinus was entirely filled up, and the ulcer nearly healed. She was now allowed to visit her friends in the town; but this indulgence she abused, by returning to the hospital much intoxicated, and very violently abusive. On the following day she was dismissed for her improper conduct.

“ About three weeks afterwards I accidentally met her, and inquired what state her breast was in, when she begged permission to show it to me. I found the ulcer had spread rapidly, and was become extremely painful. She seemed truly sensible of her improper behaviour, and earnestly entreated me to intercede with the Committee for her re-admission into the hospital. Our humane Committee granted my request. The carbonic gas was again employed as before, but the arsenic was not given to her. In a few days she felt great abatement of pain, the discharge was

less offensive, and became thicker. She now daily went on in a progressive state of amendment, till the sore was nearly healed. Her present comfortable state incontrovertibly proved the efficacy of the carbonic gas, which alone was employed, as some suspicions were entertained, during her former residence in the hospital, that the arsenic might have had some share in correcting the disposition of the cancerous ulcer.

“ When there was a probability of healing the sore on her breast by Mr. White’s indefatigable attentions, she became weary of the restraint imposed on her by the salutary rules of a well-regulated Institution, and again indulged herself with that bane of health, *vulgarly called* gin, and displayed her former ingratitude and insolence. She was now excluded, for ever, this asylum for the afflicted.

“ A few months afterwards I was informed, that her breast had become more painful than ever, the ulcer had spread widely, a profuse hæmorrhage had taken place, and a few days afterwards she had been released by death.” *

* The late Dr. John Ewart published this woman’s case in his History of two Cases of Cancer : and, as we attended her daily, and made our observations together, I have given nearly his statement during her first residence in the Hospital ; mak-

" Mrs. B., a very respectable widow lady, fifty-five years of age, came to Bath, in May 1796, for my advice on a complaint in her left breast. She had a cancerous ulcer on the superior part of the mamma, about two inches long, an inch and half wide, and the depth considerable; the edges were reverted, and the discharge highly offensive. Several lymphatic glands were affected, immoveable, and considerably enlarged. The integuments to some distance round the ulcer were hard and slightly discoloured. She recollected many years since having received a bruise on that breast, but did not think it required surgical assistance, as the part soon became easy, and she thought no more of her accident. About four years afterwards she discovered a small lump in that breast, but as it gave her no uneasiness, was not suspicious that it might be attended with any inconveniences; and her mind was soothed by the indolent state it remained in for nearly two years longer. Her health during this time was per-

ing some slight corrections which he would have done, if his desire of publication had been less hasty. She was not discharged in September with her breast quite healed; but dismissed for improper conduct, whilst there was a small surface of the old cancerous ulcer to be healed. He sent his history to the press before these circumstances took place, without giving his friends any intimation of his intentions; as must clearly appear, by his taking no notice of her bad behaviour, or the state of her breast when she was re-admitted a patient.

fectly good in every respect. The lump then began to alarm her by shooting pains, and occasionally she felt a slight stinging sensation; these circumstances she mentioned to many of her female friends, who recommended several remedies, which did not afford relief: and she found the pains become more frequent and severe.

“ She now suspected that her complaint was of a more serious nature than her friends had conceived it to be; and consulted a medical gentleman, who gave her some alterative medicines, and ordered discutient poultices to be applied to the tumour. For a short time she thought herself relieved, but her pains soon returned with more violence, and a copper-coloured spot (her own expression) appeared on the lump; some months afterwards this spot blistered, and produced a sore, which resisted every attempt made to heal it. When she gave me this information, her pains had become extremely severe, the smell of the discharge was intolerably offensive to herself and attendants, and she often suffered by a burning sensation. Her health was much impaired, and her mind in a very dejected state.

“ I assured her that it was not in my power to remove the disease by any operation: yet I hoped her situation might be rendered less uncomfort-

able by my treatment, by guarding against a costive state of the bowels, and recommending a light nutritive diet. On the following morning I applied the carbonic acid gas, and reserved in the cylinder an immediate supply for the evening. I found her much pleased by this gentle treatment, (as she termed it,) and declared herself easier from the time I left her, than she had been any day for the last two years. I applied this gas every morning and evening, and in a few days observed that the discharge had become less in quantity, and much thicker, approaching nearly to the state of pus; the irritation on the edges of the ulcer, which before had been constant, had greatly subsided, and she felt no severe shooting pains or burning sensations. On the tenth day no discharge could be perceived, but a considerable quantity of coagulated lymph covered the surface of the sore, which I allowed to remain. On the thirteenth day, I readily removed this coagulum without giving the least uneasiness, and found the surface of the sore with a healthy appearance, as fresh granulations could every where be perceived: the reverted edges were become less, and showed a disposition to resume their original situations.

“ A few days afterwards a similar coagulum was formed, and soon followed by others which

were easily removed ; the lady was perfectly free from pain, no offensive smell could be discovered, and she received the visits of her friends. On the twenty-first day, the whole surface of the sore was even, and reduced to less than half the size it was when she came to Bath. The lady's health and spirits were recruited, and she returned her friends' visits. Having the bladder recently filled with the carbonic gas, I now called on her every morning only, and instructed her maid to apply the gas in the evening, which she did very correctly, and could affix the bladder to the plaster. These were renewed every other day. A fresh soft calf's bladder will be found most convenient for the purpose.

“ In six weeks she returned home, when the surface of the ulcer was not broader than a shilling, and took the apparatus with her, as her maid was capable of managing it. A few weeks afterwards, she informed me that the sore remained easy, but was not quite healed. I occasionally heard from her for several months, and was several times told that the sore showed a disposition to spread itself, but without pain, and in a few days would become less. Probably sufficient attention was not paid to the frequent and necessary application of the carbonic gas ; or the plaster might allow it to escape.

“ In December she was seized with a fever, so violent, as to terminate fatally in ten days.”

I lamented that I had not an opportunity of pursuing the treatment by the carbonic acid gas, to that extent necessary to determine the possibility of healing cancerous ulcers so malignant as these were. The good effects produced by the gas were evident, by producing immediate ease : and it was found capable, without any interference by medicine, of reducing an extensive cancerous ulcer to the mild state of a small fresh wound ; therefore, might we not conceive that it would heal it also ? I particularly wished to know if the seat of a cancerous ulcer, thus healed, would remain sound afterwards.

Since the first edition of this treatise was presented to the public, the following cases have allowed me to prosecute my desire of employing the carbonic gas for cancerous ulcers ; and, I am happy to say, the results of my attention have been favourable :—

“ A lady, when fifty-six years of age, discovered a small lump in her right breast ; but concealed her complaint for several years, till the severity

of her pains, and, as she termed it, a bursting of the skin, compelled her to consult me. I found an immoveable scirrhus, with great hardness and discolouration of the integuments, a deep ulcer which seemed to communicate with the body of the tumour, the circumference exceeding in size a crown-piece, the edges of which were inverted, and in a very irritable state; the discharge was thin, of a dark colour, and extremely offensive.

“I applied the gas as in the preceding cases, which immediately procured ease, and soon produced a better discharge: the edges were soon considerably reduced, and healthy granulations were observed in ten days. A month afterwards, the surface of the sore, for it no longer retained the appearance of an ulcer, was smooth, and reduced to the size of a shilling, the integuments lost their copper hue; and in six weeks her breast was perfectly healed, the tumour appeared to be slightly reduced, and she felt none of her old pains when I heard from her, three months after my attendance.”

“A respectable single lady, fifty-seven years of age, consulted me for a complaint in her breast,

which, she said, originated from a bruise received many years since. I found a small, but hard, scirrhus, rather superficially situated; and an ulcer, nearly circular, so deep as to communicate with the body of the tumour. The lady assured me, that the present uncomfortable state of her breast had been produced by a caustic, as she had no wound before it was applied. I employed the gas in the usual way, which soon procured ease, and corrected the offensive smell: the sore assumed a more healthy appearance, and florid granulations soon promised success: nor was I disappointed, as her breast was healed in a month; and she felt no pains after her return into the country, at the period of two months."

Should the mode of applying the gas by the machine be found inconvenient for general purposes, it might be employed in a more simple way: as a bottle, containing two or three quarts of the acidulated water, might be substituted.

It will be necessary to have a tube of leather, varnished and flexible, eighteen inches long; to one end of which a pipe of wood, three or four inches in length, should be attached, to be introduced within the bladder affixed to the breast:

and another pipe, tapered towards the point, to be conveyed through the cork intended to close the bottle.

If the chalk is powdered and mixed with water, so as to be formed into small balls, the gas will not escape before we are prepared for employing it, and then a slight agitation of the water will readily detach it.

Unfortunately the gas cannot be employed in every case, from the uneven surface of the breast, as it is impossible *always* to affix the bladder so as to prevent its escape.

It would be a subject of much importance, as well as of laudable curiosity, to investigate and ascertain the mode of operation of carbonic gas on cancerous sores, as a successful result of the inquiry might lead to more general applications of the remedy.

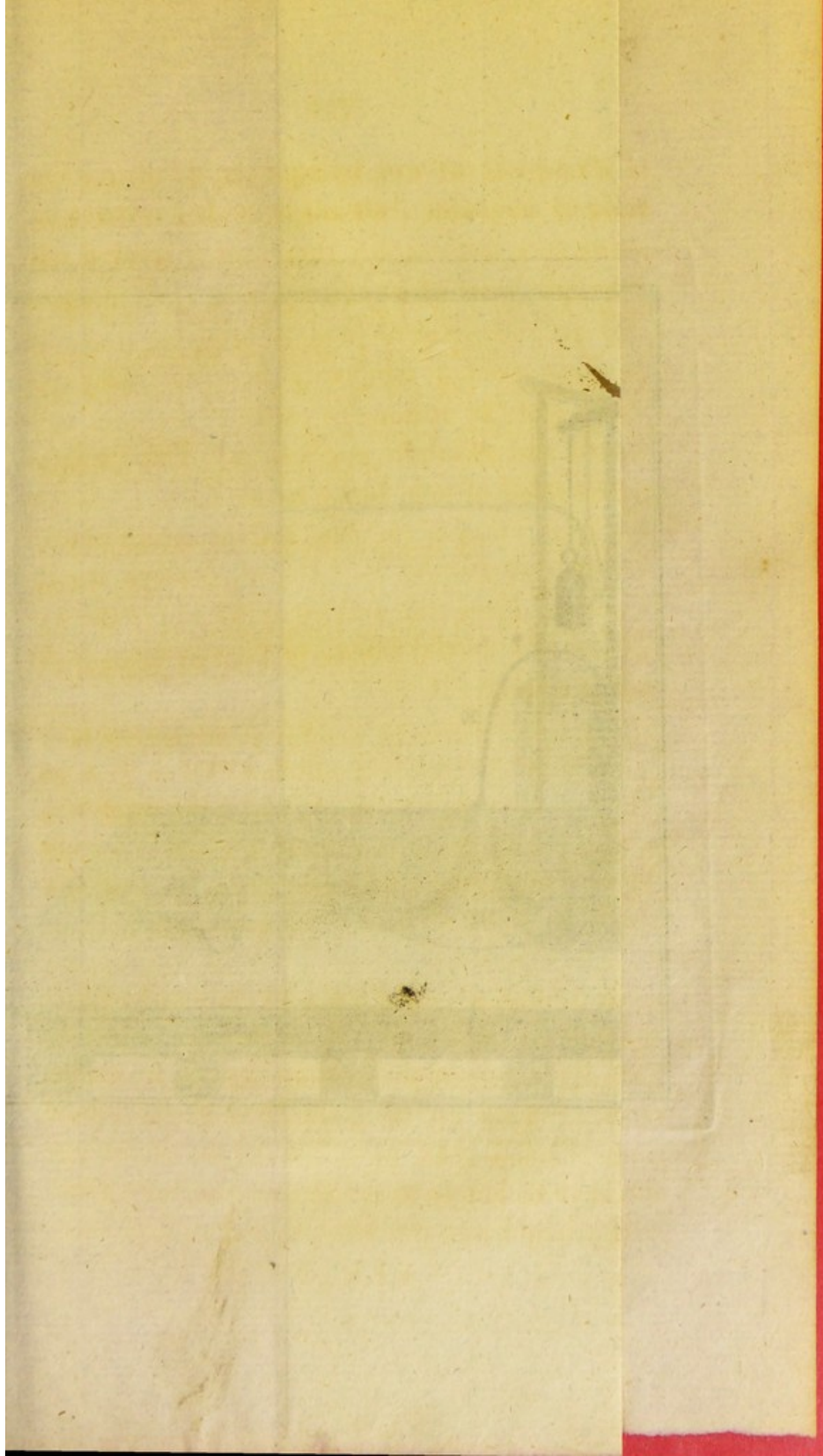
Dr. Percival, in his *Essays*, mentions some trials he had made with it in cancerous diseases, which were attended by temporary relief at least; but Dr. Dobson, in his book on fixed air, speaks of having failed of success in such cases; yet says, that gangrenous and phagedenic sores, and particularly the ulcerated sore-throat, were much benefited by fumigating them with this acid gas.

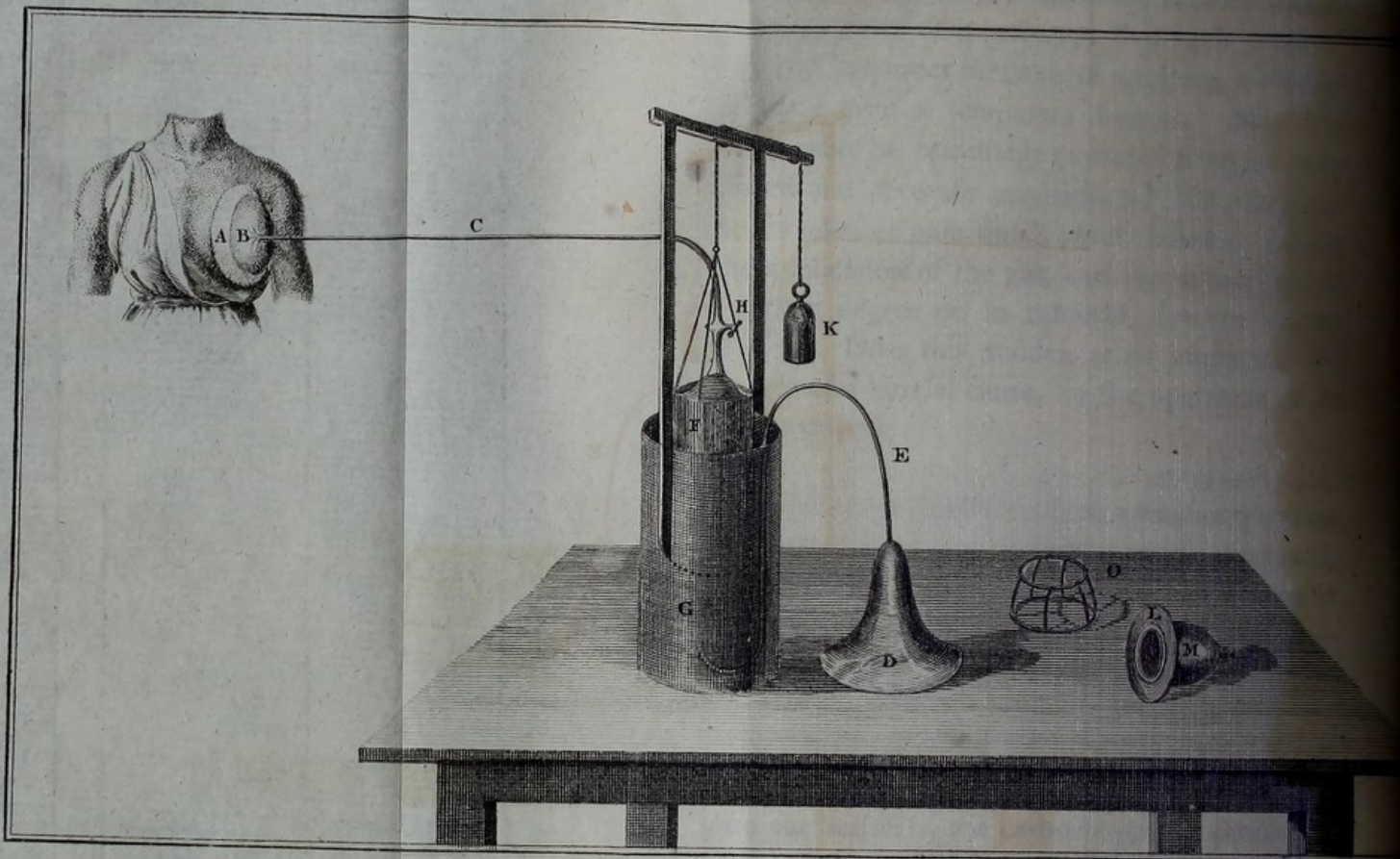
The mode of employing it is, *in general*, extremely imperfect, although it has often been found very serviceable; therefore it is no inconsiderable proof of its efficacy, that such momentary and incorrect methods of applying it should produce even a temporary benefit. May not much more be reasonably expected from its continued and accurate application? The instantaneous relief of pain which never failed to follow the application of the gas, and the return of it to a certain degree on its removal, deserve our attention. Does this sudden relief imply the exclusion of a hurtful cause, or the operation of an active agent?

Whether the discharge from a cancerous ulcer be of an alkaline nature, as is by some supposed, I shall not presume to determine; but if it really be so, the carbonic acid gas, probably, may neutralize it, and deprive it of its causticity.

As I have confined my observations to practice, and its results, I shall not attempt to investigate the action of the carbonic gas on cancerous ulcers: having uniformly declined all theoretical discussions, I shall leave that inquiry to others: and shall be happy to see the subject more generally brought into practice.

F I N I S.





EXPLANATION OF THE PLATE.

A. A circular plaster, to which the bladder is attached, fixed on the breast.

B. The bladder distended with air.

C. A flexible tube, leading from the inverted cylinder F to the bladder.

D. A bottle for the production of carbonic gas from chalk and diluted sulphuric acid.

E. A recurved tube to convey the gas under the inverted cylinder.

F. A cylinder inverted upon water.

G. A vessel containing water and the cylinder.

H. A cock-stop to open and shut the tube leading from the cylinder.

K. A balance to suspend the cylinder, so that this shall rise out of the water in proportion as gas is received under it; the ascent of the cylinder thus measuring the quantity of gas obtained.

L. A view of the inside of the plaster to be applied to the breast, with the edges of the bladder folded back upon it.

M. The bladder.

N. The aperture through the plaster into the bladder, corresponding with the size of the ulcer.

O. A small cradle made of wire, to protect the bladder when filled with gas.

ERRATA.

Page 37, line 9 from the top, for

“ that a small *fraction* only, as not more ”, read

“ that a small *number* only, not more.”

EXPLANATION OF THE PLATE.

- A. A circular plate, to which the bladder is attached, fixed on the pump.
- B. The bladder distended with air.
- C. A flexible tube, leading from the inverted cylinder to the bladder.
- D. A bottle for the production of carbonic gas from chalk and diluted sulphuric acid.
- E. A reversed tube to convey the gas under the inverted cylinder.
- F. A cylinder inverted upon water.
- G. A vessel containing water and the cylinder.
- H. A cock-stop to open and shut the tube leading from the cylinder.
- I. A balance to suspend the cylinder, so that this shall rise out of the water in proportion as gas is received under it; the ascent of the cylinder thus measuring the quantity of gas obtained.
- J. A view of the under side of the plate to be applied to the pump, with the edges of the bladder folded back upon it.
- K. The bladder.
- L. The aperture through the plate into the bladder, corresponding with the size of the neck.
- O. A small cork made of wire, to protect the bladder when filled with gas.

ERRATA.

Page 27, line 9 from the top, for
 "that a small portion only, or not more," read
 "that a small quantity only, not more."