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### INAUGURAL DISSERTATION

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#### ON THE

# DROPSY:

#### READ AND DEFENDED AT A

#### PUBLICK EXAMINATION,

HELD BY THE MEDICAL PROFESSORS, BEFORE THE

#### REV. JOSEPH WILLARD, S. T. D. PRESIDENT,

AND THE GOVERNORS OF THE UNIVERSITY AT CAMBRIDGE, FOR THE DEGREE OF BACHELOR IN MEDICINE,

JULY 3d. 1795.

#### BY WILLIAM DIX, A. M.



PRINTED AT Wassachusetts, BY ISAIAH THOMAS, jun. And Sold at his Bookstoke, Opposite the Prison,



# John Marren, M. D.

PROFESSOR OF ANATOMY AND SURGERY IN THE UNIVERSITY AT CAMBRIDGE, COUNSELLOR OF THE AMERICAN ACADEMY OF ARTS AND SCIENCES, CORRESPONDING MEMBER OF THE

LONDON MEDICAL, AND COUNSELLOR OF THE MASSACHUSETTS MEDICAL SOCIETIES, MEMBER OF THE MASSACHUSETTS AND PHILADELPHIA AGRICULTURAL SOCIETIES, AND SECOND VICE PRESIDENT OF THE HUMANE SOCIET?.

> THE FOLLOWING Differtation IS RESPECTFULLY INSCRIBED Y HIS OBLIGED AND Grateful PUPIL,

> > William Dix.

TO





### INAUGURAL DISSERTATION

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DROPSY:

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diagnoffice, caufes, and indications of cure

EVERY attempt by difcuffion to throw light upon fubjects, obfcured by imperfect information, or perplexed by oppofing theories, muft be acknowledged a tribute to the caufe of fcience and of truth. In this view, the following pages muft found their claim to the candor of the generous and the enlightened. The feat and caufes of dropfy, its fymptoms and indications of cure, form the fubject of the prefent inquiry. It may be defined a collection collection of water, or the ferous part of blood exuded from the capillary extremities of the arteries into the interffices of the cellular membrane, or feparately into cyfts; the former of which is called diffufed, the latter encyfted.

A MORE particular description of this difeafe, and its feat, will appear rather superfluous, fince they are too well understood to need farther illustration. I shall first proceed to notice, as briefly as possible, fome of its leading diagnostics, causes, and indications of cure; then endeavour to elucidate the subject by some physiological inquiries; remark on feveral medicines adapted to the cure, and conclude by relating a case, in which the operation of some particular medicines were attended with singular effects.

#### DIAGNOSIS.

THE ferum, collected in a cavity in a difproportionate quantity, compresses its contiguous parts, and deranges the functions of the neighbouring organs. The fymptoms are, in degree, according to the refistance of the fides of the cavity to the fluid ; The The time in which it is filled; the fenfibility of the parts; and the greater or lefs the importance of the furrounding organs. Water collected is generally clear; but when its thinner parts are abforbed, it acquires a mucous confiftence, and exhibits a variety of colors. When the fibres are macerated in this fluid, they become greatly relaxed. The water acquires a corroding<sup>\*</sup> acrimonious quality by its ftagnation, and

its particles, being received into the circulating fluids, give rife to many formidable difcafes, + which baffle the force of medicine, and evade the fkill of the phyfician.

conclude by relating a cafe, in which the

## PROGNOSIS.

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\* From an hydrothorax, the fluid has been found fo extremely acrid, as to erode the diaphragm, and pafs into the abdomen.—Vid. Act. Medic. Berloin. dec. 1 Vol. vi. fec. 8.

THE water of afcites has been known to be fo very aftive, as to raife pustules upon the hands of the furgeon, and its effluvia fo highly fortid and contagious, that typhus has been the confequence.—Philof, Tranf. No. 454. Sec. 4.

† Monro,

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# PROGNOSIS.

THE caufes of this difeafe are numerous and various, refulting from the conflictution, habits of indulgence, or abstinence, accidents and preternatural caufes. Debility, from whatever fource originating, may give rife to it; particularly from hemorrhages, or any exceffive evacuation. Obstructions of the larger or fmaller blood veffels, from polypi &c. Compression and stricture, as from gestation; and schirrous tumors fituated near, or affecting the function of any important organ. It may likewife proceed from violent exertions; rupture of a vessel or hydropic cyft. Abuse \* of fermented liquors. Rigidity of fibre, &c. mulate the h

THE methods of cure are next to be treated of, which according to Doctor Monro have been divided into three : And no other divifion can, with more propriety, be adopted ; and to him we would refer, as having given a

\* SYDENHAM afferts that dropfy arifes oftener from this fource than any other.

a more minute defcription in his indications of cure. In taking advantage of that part of his work, we fhall endeavour to bring into view those things, which might be deemed effential, or valued as most important.

THE first object is to remove the cause of the disease; second, to evacuate the water, and third, to prevent a relapse.

### INDICATION I.

IF the difeafe proceed from a relaxed ftate of the folids, remedies muft be ufed for exciting the contractile power of the fibres; which may be done by a variety of medicines and applications, that ftrengthen and ftimulate the habit. Friction is of fingular advantage by exciting perfpiration; exercife and gentle compression, by affifting the cohesion of the parts. Medicines of a pungent, bitter and aftringent quality, fœtid gums, volatiles, fixed alkalies, acrid falts, preparations of iron &c. increase the ofcillatory power of the fibres. Aftringents, externally applied, are fometimes ferviceable; but taken internally, are rather detrimental; for, by uniting with the food and chyle, it is not allowed to pass freely through the smaller series of vessels. If the disease arises from obstructions,\* tumors, schirri, imposthumes, polypi, &c. very little relief can be had; ex-

meral, particles, of fulpau

cept

\* A REMARKABLE inftance of a difeafed ovarium, in a child of about eleven years of age, under the care of Doctor Afpinwall at Roxbury, who, after attending fix weeks, requested that Doctor John Warren of Boston might meet him in confultation. Upon their examination of the abdomen, it was found to be greatly diftended with fome fluid ; but the hupogastric region appeared to contain a hard, unequal, schirrus like substance, which was more or less perceptible in fize and extent, according to the quantity of fluid contained in the abdomen, which at times was fo great, as to obliterate the tumor, and could be felt only by confiderable compression. It was agreed to make an incifion immediately upon the tumor ; but no difeafe external of the peritoneum was found. The operation of paracentifis was then performed, and feveral gallons of a viscid fluid drawn off. Six days after, the child died. The water had again collected, in a greater quantity than before. The vifcera in general were difeafed. The omentum adhered to the furface of the intestines. The fallopian tubes and ureters were enlarged much beyond their natural fize : And the left ovarium, extending from the left towards the right fide fix or feven inches, exhibited numberlefs hydatids filled with gelatinous matter. This ovarium, independent of any other vifcus, weighed four pounds.

DITE STREETS AND STREETS AND STREET

cept from furgical operations, or medicines appropriated to the cure of the original complaint. When it originates from rigidity\* of the fibres, nourifhing diet fhould be employed: The fkin lubricated with penetrating oils. Warm water, impregnated with the mineral particles of fulphur, falt, or iron may be ufed. If a veffel be ruptured, no affiftance can be given, unlefs there be accefs to apply a ligature, or fome ftyptic medicine.

Caster Vlodue Shire Warren of Ballies might met

#### INDICATION.

\* It is a query with fome, whether rigidity of fibre ever produces the dropfy; in anfwer to which I would obferve, that the capillary extremities of fome of the veins, which are lefs elaftic and more eafily affected than those of the arteries, may be rendered impervious from rigidity; and therefore, the whole circulating mass of blood, being brought into a lefs fphere of action, is returned to the heart in the fame given time : And the increased velocity, which from this circumstance it must necessarily acquire, may not improbably occasion a rupture of fome fmaller vessel.

DOCTOR DONALD MONRO afferts that rigidity of fibre does take place, and its authenticity ought not to be doubted, fince he not only relates feveral cafes, which came under his own obfervation, but alludes to many others, which have been attefted by gentlemen of equal veracity,

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## INDICATION II.

THE fecond method of cure is performed either by natural or artificial openings. The natural openings are by the extremities of the veins, whofe power must be increased fufficient to abforb more of the fluid than the arteries pour out. If the water is abforbed and mixed with the blood, it must be immediately expelled. For this purpofe the ferous and aqueous excretions, which are made from the stomach, intestines and urinary paffages, the fkin and falivary organs, are to be increased. This is performed by emetics, cathartics, diuretics and fudorifics. Emetics promote the ofcillation of the folids, by compreffing the vifcera. They are cautioufly to be employed, when the patient has been fubject to hemorrhagy, threatened with lethargy, or laboring under a difpnea. When given in fmall dofes fufficient to naufeate, and frequently repeated, they often prove to be cathartic, diuretic and fudorific. If the hydropic water be evacuated by draftic purges, the fystem becomes greatly weakened;

weakened; and in fact, they are injurious rather than beneficial, whenever this takes place.

MEDICINES of the diuretic clafs have often proved fallacious; for, by increafing the urine, they are faid to relax the folids. The neutral falts and native acid of vegetables promote the excretion of urine, and tend alfo, to leffen the irritability of the fyftem; and therefore, cannot ftrictly be confidered as diuretics.

WHEN thefe refrigerants are employed, ftimulants fhould be administered at the fame time. If the diuretics fail of carrying off more water than is exuded from the arteries, they are injurious. The fkin, which ought to be attended to, is generally dry; this is to be corrected by diaphoretics, friction and ftimulants. Mercurials, antimonials and their preparations, all readily increafe the cutaneous excretions. Opium has the fame effect; but antimony combined with opium, is much more powerful and efficacious. Doctor Monro particularly recommends that, where friction is necefla-

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ry, it fhould be performed with flannels, impregnated with aromatic fumes; and the external air excluded from the body, to affift the operation of medicines, which are internally received.

THE absorption of the fluid cannot eafily be effected from cavities, which are greatly distended, without previously relaxing the fides of the cavities, or drawing off a part of it; for the absorbent veins cannot have power to act, when the preffure is fo exceedingly great. When the artificial methods of leffening the quantity of water become neceffary, the evacuation must not be made fuddenly; for the preffure being diminished, and the blood from the heart, finding lefs refistance, will overstretch the relaxed parts, and often produce inflammation or gangrene; and at the fame time, the other organs, being deprived of their proportion of blood, will become paralytic, or unfit for performing their feveral functions. The ill effects, which fometimes occur from taking away these waters, are to be obviated, by moderately discharging them at different times; by compreffure

compreffure upon the part, from which they are taken, and administering fuch medicines as tend to give vigor to the habit, and restore its lost energy.

#### INDICATION III.

THOUGH the two first indications may have been in general purfued with fuccefs, yet there is a third, which ought ever to be attended to with care. There are few difeases, in which patients are so liable to a relapse, as in this. Those, who have recovered from this dangerous difease, ought rigidly to purfue the use of corroborants, and avoid preternatural evacuations, until the system has recovered its natural tone, ftrength and vigor. The cold bath, which heretofore would have been injurious, may now with fastety be employed.

WHAT has hitherto been faid may be confidered as the outlines of the fymptoms, caufes, and cure of this difeafe; a difeafe, which, though in its various ftages has frequently been fuccefsfully treated by many of those methods, which have been pointed out, yet yet as often has refufed to yield to the moft powerful of thefe applications.—As yet there has been no remedy found in the gardens of philofophy; no curative plan as yet adopted, which proves an effectual antidote to this difeafe. Though it has long been a fubject of diligent inveftigation among the learned; its cure, of repeated experiments by many; yet there are principles of importance, which have efcaped the notice of fome, eluded the fearch of others, and ftill remain in a degree of obfcurity.

FROM the confined limits of this differtation, fome few hints only can be fuggested, which it is hoped may be farther illustrated by some one, whose ingenuity and experience may better enable him to attain so important an object; so invariably the pursuit of the friends of humanity.

As a fymptom of this difeafe, there is fometimes obfervable a diminution of urine, thick and high colored, without any other thing remarkable preceding the approach of hydropic fwelling. It has generally been fuppofed that lofs of tone in the vafcular fyftem

fystem alone has been the cause; but if this be the cafe, why is not the fuperabundant water evacuated by draftic purges ; for by these the absorbents are stimulated to an increased action? To this some may object and fay, that the outlets by the inteftines are infufficient to conduct off fo large a portion of fluid; but if the whole mass can be diminished by this method, as it undoubtedly may, why is it not entirely carried off by a repetition? Others may again argue, that the stimulus produced by cathartics cannot be carried beyond a certain point, and that the debility will be in proportion to the increased action of the veffels, and that therefore a repetition of them proves ineffectual. This may be admitted ;-but where tonics are given in the intervals, in proportion to the increase of ftimuli, the debility produced cannot be fo great as to forbid a repetition of them. But experience and observation shew, that a large quantity of hydropic fluid is feldom carried off by cathartics alone, which evinces that fome other plan ought to be purfued, fince nature never defigned these organs to be the vehicles of water .-- During the operation of the draftic purges C

purges, when the fecretion of urine has been previoufly impeded, the ftimulus, excited upon the abforbent veffels, has been found to have no effect upon the urinary paffages. Hence arifes a more natural inference, that the latter are affected independent of the former; and that the increafed action of the one, does not produce a fimilar effect on the other: Therefore the obftruction of urine depends on a diminifhed energy of its own organs.

DOCTOR MILMAN relates a cafe, in which an afcites took place in confequence of a free use of barley water, by a patient, who had recovered from an inflammatory fever. The general opinion has been, that a difeafe, occafioned in this way, was to be attributed to the attenuating quality of the liquor thinning the blood. But this cannot be conceived as probable, or even plaufible, if the effects, which cold has upon the body, are confidered. For let a man in perfect health, while warm, and in free perspiration, drink immoderately of cold water, and it will often produce an hydrothorax, or an afcites, in a short time. This does not happen from any defect

defect of the absorbents, but simply from a condensation of the vapor, which is constantly exhaling from the extremities of the ar-The cold acting fo immediately teries. upon the stomach, the parts, which are contiguous to it, become affected; and thereby causing a diminution of vital heat, the vapor condenfes, and caufes a fwelling which is more or lefs, according to the degree of cold; and increases by the abforbents being fooner affected, and poffeffing lefs elafticity than the arteries .- This may be illustrated by adducing fo familiar an example, as the fweat upon a can of cold water, which operates in the fame way, and upon fimilar principles ; for the water within, posseffing less heat than the atmosphere, condenses the vapor upon the external furface of the veffel. Hence it is feen exhibiting the form of fweat or drops ; which appearance it would not have made, had not the water been cold. It therefore appears, that this collection is not produced fo much from the attenuating quality of the liquid, as from the effects of cold; and though the fwelling may not be immediately brought on; as happened in the cafe related by Doct-

or

or Milman, yet the neighbouring veffels were fo frequently rendered inactive, the fwelling enfued in confequence of the repeated application of cold drink.

WHAT has been faid with respect to dropfy, being the most common effect of cold substances, when taken in too great quantities into the stomach, naturally leads to the enquiry ; what conftitutions are most fubject to it; and why dropfy, independent of cold, oftener exhibits itself in the form of ascites, than any other species of the difease. -Those delicate habits, which are more frequently met with in females, are most liable to it. This in part may be accounted for, from the laxity of fibre, and preternatural evacuations, fo peculiar to them; and, as they are more or lefs copious, may be confidered as conftituting one predifponent cause of the disease, which is in proportion to the evacuation.

PERSONS of both fexes are more frequently affected by afcites, than any other fpecies of the difeafe; and not recollecting that any phyfiological phyfiological reafon has as yet been affigned, it may not be improper to offer a few ideas on the fubject.

WHEN we view the ftructure of the human machine, in proportion fo exact, and in fymmetry fo exquisite, we find the parts all nicely adapted to its various motions; and formed to defend it from accident and misfortune. Some parts there are however, which appear to be lefs guarded than others. Among the first and most important is the abdomen and its contents. But this feeming defect is undoubtedly a wife provision in nature; for if it were guarded in the fame manner as the thorax, with cartilages and bones, the motions of the whole body would be much reftricted, and the operations of nature confined ; respiration would be greatly impeded, and the circulation of the blood diminished; the growth and expulsion of the fœtus would be impoffible; the heart and lungs fubjected to much injury from inflammatory difeafes, not being able to receive affiftance from the action of the abdominal muscles and diaphragm: The compound action of the lungs, diaphragm

phragm and abd. musc. facilitates the expeling of air, the diflodging of any offending or extraneous matter, and the cure of difeafe .--Though not fecured by bones and cartilages, it fortunately possesses an elastic property, the advantage of which is evidenced in a variety of instances ; viz. difeases of the liver, inflammation, gestation, &c.-From whatever caufe the abdomen is over diffended, the veffels of the peritonæum may lose their elafticity; or a rupture of their coats be produced, and dropfy enfue. These veffels being much thinner than those of other parts, become the foonest affected, and fuffer more from debility. territo an an an anterita

THE abdomen being the leaft fortified part; its muscles posseled of a less degree of firmnels; the thin and delicate texture of the peritonæum, all unite in rendering it more liable to relaxation and difease: And these are most probably the principal reasons why this species of dropsy more frequently occurs.

THE use of liquids in this disease, whether beneficial or detrimental, has been a point unsettled unfettled and much controverted among phyficians : Some contending that they fhould never be denied, nor confidered as increafing the diforder ; while others maintain that they ought carefully to be avoided, and a nutritive and phlogiftic regimen purfued. No doubt there are different cafes in which either method may be adopted ; where one plan is to be followed, and the other avoided. This will be most easily accounted for by confidering the caufes of thirst, fo often a concomitant of dropfy, and referable to an alteration, or change, in the blood. Not meaning to intimate that difeafes really exift in the blood, but that it undergoes fome alteration, or acquires certain properties from affections of the folids, whereby it may be faid to be in a vitiated state. Thirst may be confidered as an uneafy fenfation, arifing from a depletion of the lymphatic veffels of the mouth, fauces and cefophagus; attrition upon the coats of the ftomach and inteffines, and the humors of the primæ viæ becoming fo acrimonious as to irritate their fibres. Now it remains a question, whether the thirst is produced by the blood parting with the ferum, and the remaining craffamentum becoming

coming acrimonious; or whether it depends on the paucity of fluids contained in those veffels. Doctor Cullen afferts that there is no tenacity in the fluids; which idea is generally adopted. But then he does not deny that there may be a thickening of the blood. The ferous part being chiefly feparated, the remaining craffamentum must necessarily be more denfe; and the fame caufe, from which this denfity arifes, diminishes the whole mass of circulating fluids. It therefore appears natural to suppose, that thirst originates from the want of thin and diluting liquids to defend the coats of the veffels from those groffer parts of the blood, which exist in the craffamentum, than from a mere dim-

THE ftomach when evacuated indicates no neceffity of being replenished with liquid more than folid substances. But let the latter be given alone, and a great degree of thirst takes place; which shews that it is altogether dependant upon irritation: For the secreted humors of the stomach, without the addition of other liquors, being insufficient to macerate and dissolve the aliment taken into it, admit

inution of the fluids.

mit of friction upon its coats. In conjunction with this, the diforder is increased, the humors become depraved, and the ftomach further debilitated. The fkin, in particular, becomes very dry; from which circumstance a phenomenon takes place, on which we may account for the increase of waters, though drink has been cautioufly avoided for a long time. This kind of diet fo much confpires with the difease, that in hydropic perfons, who take no drink, a large quantity of fluid will be imbibed from the air; fo that this extraordinary inhalation of moisture must be imputed to the attraction, which the fkin has to it, from the denial of drink and nature of the aliment. The fame principles will apply to the blood. For in fevers an uncommon degree of thirst is always found. Now the blood, moving with greater velocity from the increased action of the veffels, produces great irritation upon its coats; and this propenfity for liquids is in exact proportion to the irritability of the veffels, and the increased velocity, with which the blood moves. The immediate caufe of this irritation is the attrition of the red globules upon the coats of the veffels, which creates a

frequent

frequent contraction of them; and according to their abundance, will be, not only the contraction, but subsequent irritation. A variety of arguments might be brought to prove that inanition of the veffels does not, in the leaft, occasion thirst; but that it proceeds from the caufes above mentioned. For if it could poffibly arife from inanition, why would it not take place most fensibly after a copious hemorrhage? It may therefore be inferred, that thirst has the same origin, both in fever and in dropfy, viz. irritation; and that this is produced, in the latter, by the craffamentum being deprived of the ferum; and the red globules bearing too great a proportion to the whole mafs of blood.

FROM what has been faid, it appears evident, that the thirft, arifing from the blood parting with the ferum, the craffamentum being condenfed, and probably becoming acrimonious, renders obvious the benefit refulting from the free ufe of liquids. One exception may be made to this rule. In difeafes of the mefentery and its glands, with fchirrofity of the liver, the operation of the most powerful diuretics has proved unfuccefsful; and therefore therefore the opposite mode of treatment may be more properly employed.

To treat this fubject methodically, it will be neceffary to take into confideration fome few medicines, which are best adapted to evacuate a collection of hydropic water.

ALTHOUGH the diuretic plan has been efteemed as doubtful and uncertain, from its failure in fome inftances; yet, from many experiments and obfervations, it appears to be the only fure method of remedy. To value it then, as the grand defideratum in the cure of the difeafe, may be highly proper.

The cream of tartar may be recommended as a fafe and ufeful diuretic, poffeffing fuperior virtues, and producing remarkable effects. Doctor Milman beftows fome encomiums upon this medicine, and relates many cafes, in which it obtained the moft flattering fuccefs. He very juftly obferves, that " the beft diuretics can have no effect, unlefs combined with plenty of diluting liquors." In confirmation of this, we would refer to fifteen cafes of hydropic patients, narrated in the Acta Bononienfia, who continued the ufe of cream cream of tartar from thirty to forty days, without any perceptible effect; but what was remarkable, they were afterwards cured by half an ounce of it taken every day in a large quantity of water; which method difcovered its peculiar efficacy and falutary effects, by caufing a plentiful flow of urine in a few hours.

The digitalis purpurea has acquired a degree of celebrity among many. But the virtues, which are afcribed to it, I do not think are to be depended upon; for I have feen feveral inftances, in which it has failed of that fuccefs, which is fo generally attributed to it. Indeed I have never known an inftance where the fame effects might not be produced, and with greater advantage, by the nicotiana. Doctor Fowler ftrongly recommends, and highly extols the virtues of this plant, the application of which has been attended with great utility.

I would beg leave to conclude by relating a cafe of anafarca, which came under my cognifance during my pupilage.—A married woman, of about thirty years of age, naturally of a delicate and flender conftitution, had been been troubled with various complaints from the age of fourteen. She had been married three years, during which time her diforders were obstinate and lasting .- Medical assistance was repeatedly reforted to, from which temporary relief was often obtained. During the laft fix months of her illnefs, from fome of the following fymptoms, fhe fancied herfelf pregnant, which afterwards was not found to be the cafe. She complained of great naufea, coldnefs of the extremities, fyncope, &c. which were fucceeded by a bilious fever, that terminated but to be followed by a difeafe equally alarming and diffreffing. Her catamenia now were obstructed, a swelling of the lower extremities took place, which daily increafed and became more formidable. The general mode of treatment was purfued, fuch as cathartics, fome few diuretics, fcarification, friction, compression, vesication, tonics, emetics, &c. but all without any visible effect, or permanent advantage. A hectic pulfe and great expectoration followed, attended with regular exacerbations, which betrayed ftrong marks of an affection of the lungs. The diftenfion of the abdomen and lower extremites was exceffive, and even threatened a rupture of their fibres; and though part of the water

foon returned with rapid increase. Her stomach had become fo irritable as to reject almost every tonic preparation except the Lig. Quafs. A diarrhea enfued, which indicated a tendency to putrefaction, accompanied with dyfpnea, and a suppression of urine. Her situation now exhibited a truly melancholy appearance; and afforded no hope of recovery, or prospect of relief. As almost every probable means that had been employed proved abortive, and death feemed rapidly advancing, a digreffion from the common mode of practice could not be deemed improper; and even vague experiment might be justifiable. Accordingly the tincture of cantharides was administered in repeated and large doses. This had no great efect, for the first eight hours, excepting a sense of heat and great thirst. A little weak beverage was now permitted. It must be remarked that liquids had before been prohibited; and at this time were rather sparingly given. But nature now feemed to be roufed from that torpid inactivity, which had fo completely invaded the whole system. The urinary passages were relieved, and a free and copious difcharge induced. The abforption and evacua trouga part of the ogner ation

ation of a greater part of the superabundant fluid was effected, in the course of four or five days. Tonics at the fame time were administered, in the greatest possible quantity, that the ftomach would allow. Bandages were employed to affift the contractility of the parts, and prevent a relapfe. But this appeared to be the last effort of nature to rid herfelf of a difeafe, which had become infupportable.' Dyfpnea and faintnefs now fucceeded, which increasing threatened a total fuspension of the functions of life. The energy of the fyftem, being infufficient to continue a reaction, from the extreme debility, to which fhe was now reduced, fphacelus commenced and diffolution enfued.

THE body was afterwards examined, and the lungs were found to be difeafed, and fome of the vifcera of the abdomen.—A relation of this cafe may ferve to fhew, that the internal ufe of cantharides may be freely and with fafety employed. And though in this inftance there was a fatal termination, yet it ought to be no argument againft a repetition of the fame medicine; for other coexistent difeafes were of themfelves sufficient to produce

### [ 32 ]

produce death, though perhaps not fo fuddenly.

I HAVE taken the liberty to make thefe ftatements, with circumftantial minutenefs, where it was deemed neceffary, and purfue thefe inquiries with freedom. They are fubmitted, with the hope, that they may meet the indulgence, and the wifh that they may be honored with the approbation of the refpected Patrons and Profeffors of Medical Science.









