A second address to the owners and agents of coal-mines : on destroying the fire and choke damp in confutation of two pamphlets, lately circulated in the neighbourhood of Newcastle / by Thomas Trotter.

#### Contributors

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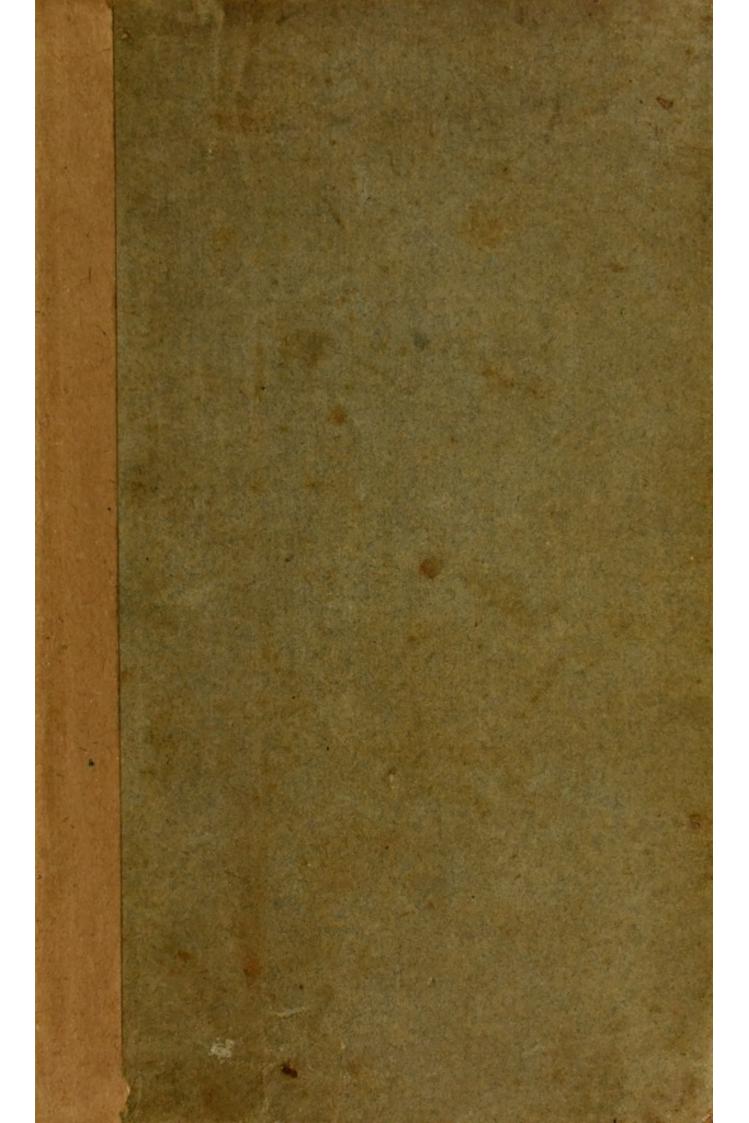
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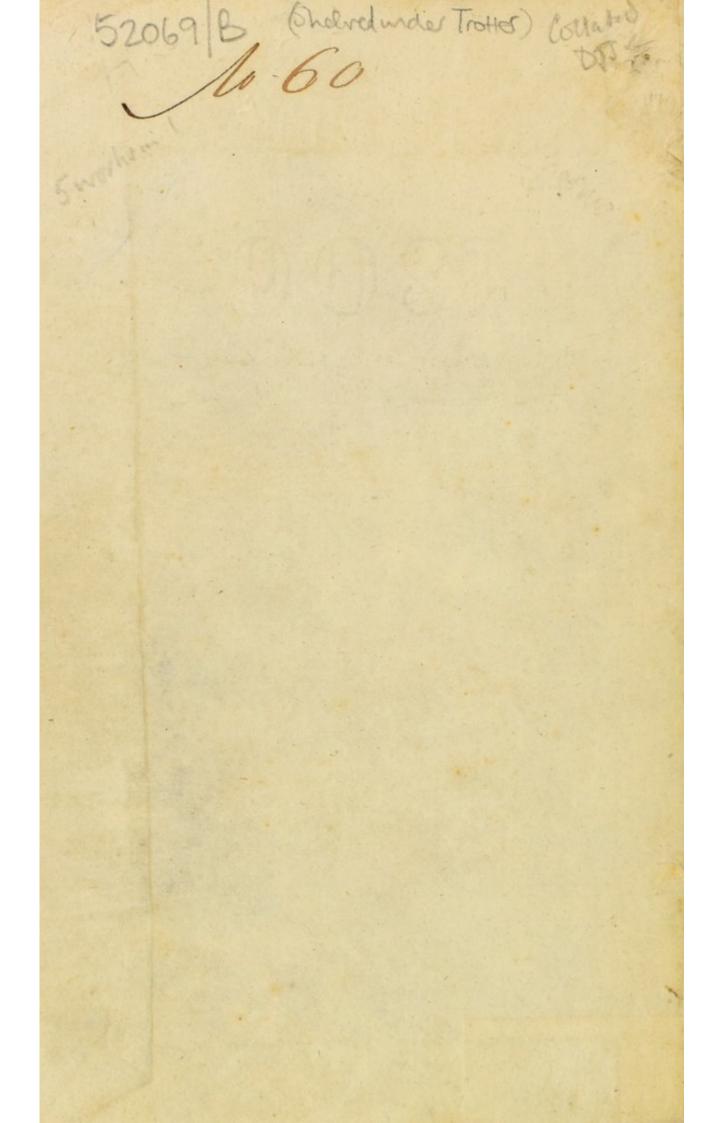
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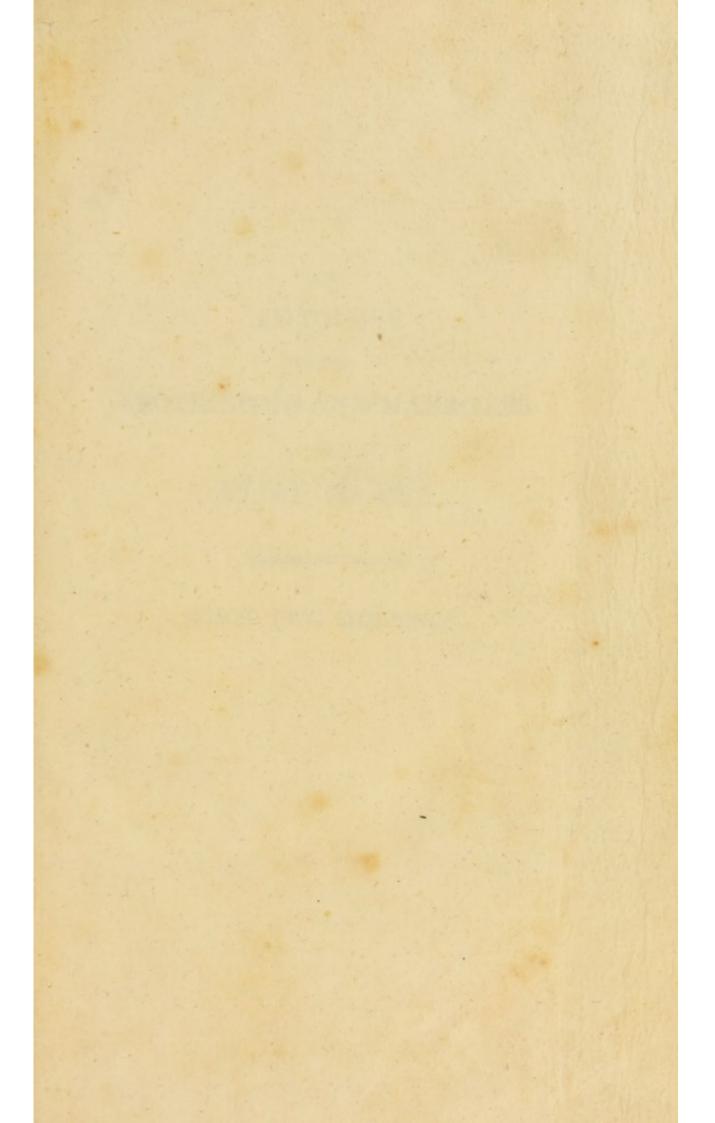
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me the justice to allow that it is fully con-

I am Sir.

The following Publications, by the Author of this Letter, are sold by J. Murray, 32, Fleet-street, London.

1. OBSERVATIONS on DIARRHEA and DY-SENTERY, particularly as these diseases appeared in the British Campaign of Egypt in 1801.

2. DISSERTATIO MEDICA INAUGURALIS DE OPHTHALMIA ÆGYPTI.

# SECOND ADDRESS

A

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#### TO THE

## OWNERS AND AGENTS

OB

## COAL-MINES;

ON

#### DESTROYING

THE

#### FIRE AND CHOKE DAMP.

IN CONFUTATION OF TWO PAMPHLETS, LATELY CIRCU-LATED IN THE NEIGHBOURHOOD OF NEWCASTLE.

## BY THOMAS TROTTER, M. D.

LATE PHYSICIAN TO HIS MAJESTY'S FLEET, &C. PHYSICIAN IN

NEWCASTLE.

" Thou shalt not bear false witness against thy Neighbour."

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#### NEWCASTLE :

PRINTED BY EDW. WALKER, PILGRIM-STREET; Sold by all the Booksellers in Newcastle, Shields, Sunderland, and Durham; and by LONGMAN, HURST, REES, AND ORME, LONDON.

1806.

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## SECOND ADDRESS, &c.

A

TO THE

OWNERS AND AGENTS OF

COAL MINES.

## GENTLEMEN,

IN the month of October last, I did myfelf the honor of addreffing you, on the fubject of deftroying the fire and choak damp of coal mines; to which I was induced by the following circumstance :- In the course of my attendance on a fick friend, I happened to pass the church-yard of Jarrow, at the time that thirty-two pitmen were committed to the grave, who had been killed at Hebburn colliery ; who left wives and children, to the number of 105. Impreffed with the folemnity of the fcene, at my return home, I fat down to commit fome thoughts to paper, on the prevention of thefe accidents; and I intended to communicate them to you through a Newcastle Newspaper. But when I came to inform the editor of the Tyne Mercury of my intention, I learned that my effay was too long for fuch a channel of intelligence; and was urged to print it by itfelf, as likely to be acceptable to all concerned. Fully aware of the imperfection of my undertaking, after fome hefitation, I at laft confented, and 250 copies were thrown off, as being deemed fufficient for fale, and paying the expence of printing. A few were fent to Meffrs Longman and Rees, my bookfellers, in London, with a requeft to infert it in their catalogue, but by no means to incur any expence in publifhing.

Such a field of obfervation being entirely unoccupied, and free to enquiry, it could not be deemed an improper fubject for a phyfician in Newcaftle; and if it fhould excite others better qualified than myfelf, from local knowledge, my labour could not be loft. A phyfician in actual practice, therefore, could not come before you in a queftionable fhape. I can have no doubt but you will do me the juffice to fay, that on the occafion, I did not intrude upon your privacy by any perfonal application; nor did I tamper with your workmen, as a hot-headed projector, in order to give importance to my propofal. The whole was left to your diferentian, to be tried or rejected as you might think proper.

The composition of my effay being wholly unpremeditated, and not intended as a treatife on the chemistry of coal-mines, I conceived it fufficient to preface my plan of prevention by a few general remarks, that might neither fatigue your patience in the perusal, nor difgust you by pedantic technical expressions. Had I sufpected a snake in the grass, it might have been prudent to refresh my memory by looking over any modern chemical author; for it does not appear that any blunders were committed that could not be corrected by half-anhour's reading. Having therefore attached no confidence to my propofal, beyond the confcious pleafure of withing to ward of a fevere affliction incident to your miners, which fince that time has been repeated with accumulated horrors, I felt little difappointment that no experiments had been made by your directions. I have, however, been informed, that a refpectable philofopher \* in this town, always ready to ferve the arts in his neighbourhood, has mentioned my work in his ufeful lectures, in terms of commendation; and it is fome proof that my fludies have been employed in the caufe of humanity and virtue, though without the defired fuccefs.

Notwithstanding the oblivion to which my labours were configned in this diffrict. the merits of my effay have been fubjected to a fiery ordeal in a diftant county, and have given birth to two pamphlets of most extraordinary complexion and character. That an ephemeral production, written on the fpur of the moment, and intended for the circle of a provincial newspaper, should have called forth two authors to pour out their criticism to the length of 99 pages, is an event fcarcely parallelled in the annals of philosophy. It has thus acquired a degree of importance which it never claimed for itfelf. The first of these publications bears the name of " A friend to rational schemes of improvement." The other is

\* The Rev. W. Turner.

fubfcribed, "Henry Dewar, M. D. one of the Phyficians to the Manchester Infirmary." They carry in their face the marks of being fifter productions, qualis decet effe fororum: it is evident they have been written in concert, and most likely owe their birth to Manchester.

What were the motives of these authors it would be difficult to difcover. I have been frequently asked, if this "Henry Dewar" is a perfon with whom I had any quarrel in the public fervice of the country, his remarks bear fuch figns of perfonal enmity and revenge? But it fo happens, the name is utterly unknown to me; nay, there is even fome fufpicion that it is not a real fignature. From the phyficians of Manchefter, I have often with others, received much folid inftruction, particularly from the elegant pens of Doctors Percival and Ferrier ; I have alfo enjoyed fome agreeable hours in perufing the fine difquifitions on literature and the arts, that are to be found in the transactions of that fociety. But here is a falling off indeed, that difcovers at once, both moral and intellectual degeneracy! As it is not held a law in authorship that every writer should defend his own works; I address you a second time, for the purpose of convicting this malignant *Duumvirate* of wilful and deliberate falsebood !!!

It has been faid that thefe productions were written at the inftigation of certain perfons in this town or near it. But I have no fuch belief; and were it true, they must be unworthy of notice. Confcious of having given offence to none, nothing could justify a retort fo flagrant and vindictive. It is creditable to the prefs of Newcastle, that this venom did not iffue from it : it is honorable to the medical profession in the neighbourhood, that no man could be found vile enough to difturb the peace of his brother, in the performance of a benevolent duty. And I am forry to fee Mr Charnley's fhop made the medium for circulating this mais of perfonal invective and injustice; for he cannot be ignorant, that my attempt at faving the lives of the poor pitmen from those dreadful explosions, proceeded from the

most pure and distinterested intentions; at a time too, when a fresh catalogue of deaths, \* has attracted the commiseration of the furrounding inhabitants. It now appears that near a hundred human beings, and double that number of horses, have been destroyed in the last nine months! Are these accidents of such such account, that the man who attempts to prevent them is to be perfecuted for his labour ?

Although I have faid that these pamphleteers bear a family likeness, they have nevertheless, agreeably to a preconcerted mode of attack, come forward by different routes to the charge. The "Friend to rational schemes" only fupplants conjecture with conjecture: he is a palpable fophist, but a gladiator in difguise, and descends into the arena but when he expects to find his combatant assess. Hic niger est, bunc tu Romane caveto. To "Henry Dewar," the mean task feems to have been assigned to assess me with low abuse. Such a task is indeed not ill adapted to his fensibility. But mark

\* Ten men and thirty horfes at Killingworth, befides injuries to many more.

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the libellous tendency of one of his paragraphs. "Your errors," fays he, " are of " fufficient magnitude to justify an explicit " avowal of difapprobation from any reader " who has at heart the interests of bumanity " and science, and the respectability of our pro-" feffion." This writer has been accustomed to meafure the feelings of others by his own coarfe fenfations; and I am in hopes when you know me fully, you will view this fentence as flowing from a corrupted fource, or the dictates of a gloomy mifanthropy. I blefs the HAND of DIVINE PRO-VIDENCE that I have been raifed to a station that exposes me to the rancorous hate of a mind fo vindictive and wicked; for applaufe from fuch a quarter would be little fhort of infamy. " Wo Shall be unto thee when " all men speak well of thee," (St Luke.) I am thus faved from this curfe of the New Teftament. I ought to be proud indeed in reading the paragraph. That man muft have fome hold of the affections of mankind who becomes the object of fuch unqualified and fuperlative abufe: he must have fome right to the reputation of an

honeft phyfician, whofe ftudies could draw forth fuch unprecedented outrage; for vice and infignificance find a fmoother paffage through the croud. Hail ! ye naval worthies of the age ! ye Howes and NELSONS of the day! one moment's reflection on your illustrious friendships, more than repays me for an eternity of fuch cenfure ! We here perceive the politenefs which is due to a ftranger; the delicacy ufually obferved when speaking of character, alike held at defiance, and incapable of reftraining the fury of a malicious temper. The whole exprefiions have no fellow in English medical language. This man betrays the disposition of a philosophical Bacchant; a foul tormented with jealoufy and fpleen even to delirium; at least his difquifitions appear to have been composed during the Saturnalia.\* No fpecies of felf-fufficiency is fo difgufting, as when a weak and infolent critic affects the prerogative of difpenfing or denying literary honours. In a ftyle not more decorous, he goes on for 50 pages,

\* A feftival at Rome, when the drunken flaves were accuftomed to infult their fuperiors.

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and then with unrivalled effrontery congratulates his *fine feeling*, that he has not had " *recourfe to fly infinuation or low fcurrility* ! !" It would be indecent to offer a comment on fuch pitiful effusions of ill-nature.

In my propofal, when fpeaking of purification in general terms, I have faid, (p. 23) " Even this neighbourhood has " lately heard contagion difcuffed in a new " style, without much edification." And in p. 32, I have used the following expreffions: "Sordid and felfish indeed must be " the tenor of life in that professional man, " who can traverfe the acres of this neigh-" bourhood for daily bread, and not do one " kind action gratis; or fometimes caft " one fympathizing look below, to those " industrious miners who toil amidst dark-" nefs and dangers, whofe labor gives the " first fpring to that commerce which is " the best nurfery of our feamen, and " which brings back to the fhores of the " Tyne and the Wear, wealth of incalula-" ble magnitude."

By a perversion of an author's fentiments, not commonly employed by liberal minds,

the paragraphs just quoted, are faid to be an attack on the " postbumous reputation" of a phyfician lately deceased. Nay, " Henry " Dewar" is polite enough to acknowledge, " If you had not indulged in that unne-" ceffary and highly unmerited reflection " on his public labors, it is probable that " you would not have been favoured with " the preceding obfervations." What a lofs the world might have fuftained had my words not been misconstrued ! That is to fay, this immaculate production might have still flept in the brain of its author, and rotted like a weed by Lethe's ftrand. Fortunate delivery! Rejoice ye heavens, and be glad O earth ! Io triumphe ! But I folemnly deny to have had any perfon in, view in either of these fentences: and I boldly fay, that none but men who are adepts at mifreprefentation, and for a hellish purpose, could ever have drawn the conclusion. They have thus hyæna-like, the fouleft beaft of prey, not been fatisfied with carrion above ground, but have despoiled the fepulchre to glut their voracious maws. It may be now hoped they will permit the

the ashes of their friend to rest in quiet, after this facrifice of truth and discretion to his manes!

The true inference that ought to be made of the first quoted fentence, is, that the popular difcuffion of contagion, which happened at Newcaftle four years ago, had fo alarmed the minds of the inhabitants concerning infectious fevers, that when a typhus appeared in 1803, it excited a dread equal to the plague itfelf. And it may be still in memory, that but for the active meafures taken by Thomas Smith, efq. who was then mayor, to quiet the fears of the neighbourhood, the trade of the port must have been suspended for a time. Now what had an allufion to this fubject to do with a " Collection of papers on infection," or the " posthumous reputation" of any phyfician. I was in Newcastle during a great part of this difpute, and it is well known I never interfered, directly or indirectly, with it. And with refpect to the other fentence, the very worft that could be faid of it, is, that it was a poetic flight of a man who fometimes attempted to write

verses, but was incapable of writing good ones. Laurence Sterne observes, when a perfon wifhes to do his neighbour an ill turn, he can pick up straws fufficient under any hedge for the purpofe : and fo it has happened with me. Some gentlemen here, who heard of the objectionable paffages, had the curiofity to read my propofal, for the purpose of finding them out; but really could fix on no paragraph that bore fuch an interpretation. I may therefore, with confidence, give it as the opinion of this neighbourhood, that no fuch meaning has ever been entertained of any part of my effay. Thefe authors must find it difficult to justify themselves in the eyes of good men; a falfehood, it thus appears, had given birth to their publications, and fcandal has been the vehicle with which they have ferved them up.

But another topic equally foreign to the difcuffion, is also introduced by the "Friend of rational fchemes." This man fays in p. 32, "Though I have no fhare perfonally or re-"motely in the local politics of Newcastle, &c." To what the author alludes I am at a loss

to determine. What does he mean by the " politics of Newcastle?" I am acquainted with no " politics" here, but attachment to the king and conflitution of the country. But as this writer bears the family name of a certain defcription of perfons, who are remarkable for introducing the fubject of politics into every debate, I the lefs wonder at the mention of it here. If I miftake not. his pen has been dipped in gall, on other matters of controverfy befide the purification of your fubterraneous demefnes. Perhaps also he may carry in his pocket a new constitution for the coal-mines; fuch a one as will teach you how to dig coal, inftead of felling it. But you will naturally fufpect every thing that comes from thefe " age of reason men ;" Timeo Danaos et dona ferentes, left they communicate the family difeafe. If, however, in thefe harmlefs paragraphs of mine, I have flumbled upon the counter-fign of the illuminati, I am as innocent of having done it by defign, as the infant that now fports round my chair. Such men I well know, are very apt to treat with contempt every thing that relates to corporations and eftablifhments; but no fectarians are more gregarious than themfelves; and when an affront, real or fuppofed, is offered to one of their order, *binc illæ lachrymæ*, the whole corps fly to arms, and a thoufand poifoned arrows are difcharged in the dark at the aggreffor.

Topics of philosophy have feldom been published without the proper names of the authors; and I may be blamed for replying to an anonymous writer. But it ought to be remembered, that the affaffin who points his stiletto in the night is more dangerous than the open murderer. This man might have claimed the credit of modefty, had truth and benevolence guided his pen; but under the mafk of concealment he could better decry my propofal, and affert, what is falfe, that I had meddled with the posthumous reputation of his friend. Good nature and a charitable fpirit are excellent ingredients in all the duties of life; but they become peculiarly requifite, when we act as inquifitors on the conduct of our neighbours. If therefore bad paffions mix themfelves with our animad-

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verfions on the faults of others, we defervedly incur the contempt and ridicule of the liberal and intelligent part of the community. How far the officious criticifm of the *Duumvirate* comes within this remark I leave to themfelves:

Let those teach others who themselves excel; And censure freely who have written well.—Pope.

The biographers of any man, must be driven to miferable fhifts, who employ injuffice and detraction against living characters, as vehicles for the panegyrics of their departed friends. Such fame is not to be forced upon mankind; a good and lafting name is only to be purchased by perfonal dignity and virtue. It would have been generous in these redoubtable champions to have defended their client, when they faw him incapable of defending himfelf, though then in his ufual health. I mean when he was publicly called upon, before a tribunal of science. To appear in arms when no hoftility is intended, is worthy only of literary bullies. But I am not to be frightened from independence of

opinion, or scared from my purpose, becaufe every doughty pedant will exclaim, nil de mortuis nisi bonum. In the whole conteft, I never had any perfonal refentments to gratify; far lefs now; but I fully expect every honeft phyfician to approve the conduct that openly refifts tyranny, ignorance, and littlenefs of mind, whenever they convert the practice of medicine into an inquisition, or put innocence to the torture on a fick bed. Thefe authors know to what I allude; verbum fat eft. To have fecured the good will of a certain character, by fervility and tameness of spirit, was a task of too paffive obedience for me. I love the exercise of my profession as much as any man living; but I have long ago refolved to make no difhonourable conceffions to obtain its emoluments.

With refpect to the points of chemical philofophy *fub judice*, my adverfaries have proved nothing but their own malevolence and incapacity. The "*Friend to rational fchemes of improvement*," attempts to throw difcredit on my account of the *fire and choke damp* in coal-mines, but offers no

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certain hiftory of their composition; and after quoting and haranguing much, retires with the ignominious confession in his mouth, (p. 38,) that "it is to be re-" gretted no accurate analysis has bitherto been " accomplished of the gas which constitutes fire-" damp." Yet all chemical authors agree that it is hydrogenous gas; because though fome portion of fulphur or carbon, may be mixed with it, yet hydrogenous gas is the medium or folvent which fufpends them, and to which the explosion is owing. Where the fulphur is in large proportion it cannot explode, it only burns flowly with a blue flame ; but the carbonaceous matter does not feem to leffen the explosion.

It is produced as an argument againft my antidote, that it would convert *firedamp* into *choke-damp*. But this muft alfo be the cafe at prefent, as the effect of the natural explosions; which is not proved by competent authority. I have no where faid that the *fire-damp* is identical with *hydrogenous gas*, as this author contends. To fay that it is generated in thefe mines, " *probably* in great purity," implies no fuch meaning; and it behoved this controverfialist to show, what are the precise ingredients in it, before he makes such confident affertions.

From all accounts it is agreed, that no meafurement has yet been made of any volume of extricated fire-damp in a coal-mine. And to attempt to calculate on the mathematical certainty of its bulk, befpeaks rafhnefs, not demonstration. All the reafoning therefore which this writer employs about the expence, is extravagant and inadmiffible, for he has not made a fingle experiment ! There can be no neceffity for going further with the employment of the *fuperfaturated* acid, than to render the bydrogenous vapor incapable of explosion, fo that the workmen might have time to retreat. It is probable a fmall fum might accomplifh this defirable end.

The author is pleafed to mention my ignorance of Mr Chenevix's chemical nomenclature. In truth, gentlemen, my object was to employ terms fuch as could make my fubject most familiar to you. It would not have cost me much time, furely, to

learn ten or twelve phrases, which include all the fubftances spoken of in my effay. The miftake which I have made, on the comparative gravity between hydrogenous gas, and carbonic acid gas, and atmospheric air, is a mere lapfe of memory ; not having confulted a fingle author on that, or any part of the fubject, fo that little merit can redound to any critic. But this writer excels in hyperbole. He fpeaks of the muriatic acid required for the process. being capable of rendering the water of a mine fo acid, that no machinery could remove it. Now all this is mere calculation and conjecture; he has not proved it by any trial. As well might it be argued. that the coal-trade fhould be ftopt, becaufe good fires confume the pure portion of the atmosphere. When he dreads the film being taken from his reasoning, he tries to frighten you by the profpect of expences : on the whole this incognito difcovers the talents of a fubtle disputant.

Having finished his remarks on the incompetency of my antidote, he takes a bolder flight; and in p. 24 and 25, with a levity bordering on impiety, inpeaches Omnipotence itfelf. Does he mean by these inductions to fix bounds to improvement? Has the hand of the Deity left off working? Or has that power that beftows on the human mind its faculties and capacities ceafed to exift? This man fpeaks as if nature was growing wearied and worn out, " lassa et effæta," and unfit to produce any thing more. Has this declaimer never been informed, that gun-powder, which can remove mountains of rock, and change the very face of the moral world, as recently done in Europe, is the invention of chemistry ? You, gentlemen, are daily beholding the powers of the fteam engine, which are a chemical process. And chemistry too has furnished us with the ironrod that fnatches the bolt from the thunder, in the very moment of threatening defolation. And yet this "fciolift in philofophy," tells you, that the inftruments of " chemistry are of all those with which we are furnished, of most limited power !" If he is too cold-blooded himfelf to feel for the destruction of your workmen, it ill becomes him to infult the inquiries of others for their relief.

In exculpating myfelf as a phyfician, for having recommended to your attention, a preventive, that has called forth fo favage an opposition, I must beg leave to inform you, that it is a maxim, as old as the profession itfelf, anceps remedium melius quam nullum; a doubtful remedy is better than none. My proposition is justified by a fact established in chemistry, that the muriatic acid, when highly fuperfaturated with oxygen, is capable of giving it out when in the flate of vapour, to hydrogen gas; and thus combining with it, to render it incombustible. Now, this fact is admitted by both my opponents. By "the friend of rational schemes," in p. 15-18: and by " Henry Dewar," in p. 22. Neither the artful fophiftry of the one writer, nor the vulgar malignity of the other, has been able to difprove it. While therefore in the prefent condition of mining, fuch fevere difasters are frequently occurring, it is at leaft commendable to provoke inquiry on fo important a fubject; and from the fignal difcoveries which ingenious men have made in different ages of the world, there is no reafon to defpair but time may unfold an ample remedy.

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That a fcheme of fuch magnitude was to be brought to immediate perfection, is beyond the ufual lot of human inventions. That it was to escape opposition, was as little to be expected : but to meet perfecution was never foreseen. A train of fair experiments, and a difpaffionate difcuffion, were all that I contended for. It does not difparage a phyfician that he is not a perfect chemist : chemistry, long ago, has been faid to be a valuable handmaid to medicine, but a dangerous mistrefs. Even with all its improvements this is still the cafe. But after what you have feen delivered by thefe authors, in this medley of philosophy and flander, of criticism and invective, you will fcarcely believe, that the antidote, which I recommended for trial, is no other, than what has been introduced lately, into a thousand fick chambers in Europe, as a corrector of contagion ; and at this moment a French and English physician are contending for the credit of the difcovery.

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Now as it has never been held "ludicrous," to fubdue a reigning peftilence, infefting a large district of country, by a parcel of pipkins emitting the vapours of the muriatic acid, fuperfaturated with oxygen; why is it to be fo in the caverns of a mine against bydrogenous gas? But I contend further, that it is more rational to employ it against the fire-damp of a coalpit, becaufe that procefs is fupported by experimental chemistry; while its action on contagion refts on fome fanciful theory of contagious matter, incapable of proof, or demonstration. If, therefore, a trial is found impracticable from local caufes, that cannot invalidate the justness of the principle from which it was propofed.

But, gentlemen, you are alfo now to decide, how far the reproaches of thefe writers have been called forth, by a generous and manly interference for the fafety of your fervants and property, and how far they have fprung from the fordid motive of perfecuting my writings and reputation. You obferve one of the party fo loft to the dictates of ingenuous fhame, as to confess, that he only appeared in the caufe for the fake of revenge. In defending myfelf against an attack that has no example in medical discuffions, you will allow that it is my duty, to dispute every inch of ground, with men who have attempted to despoil me of the rank I hold in my profession.\*

\* A Letter from Admiral Earl Howe, K. G. on religning the command of the fleet.

Grafton Street, May 7th, 1797.

SIR,

It will always be matter of grateful reflection to me, that I was the means of nominating you to your prefent flation. And I may juftly congratulate yourfelf and the country, on the important changes which have taken place in the fhips and hofpitals by your advice and exertions; and the zeal and activity which have been fpread throughout the fervice by your example. I am further to thank you for the communication of your work on the difeafes of feamen, which I found on my table when I came to town. I do not think the retirement of a weak invalid like myfelf can effect your appointment, from which on all occafions I received fuch effectual co-operation. Inducing every fentiment of gratitude and effeem.

#### I remain,

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#### SIR,

Your most faithful Servant,

(Signed) HOWE.

pleafure. I know but little of what

To Dr Trotter.

Although I have ferved upwards of twenty years in his majefty's navy, which include all the beft of my days, and the half of that

## From Admiral Sir R. Curtis, Bart. formerly captain of the fleet to Earl Howe.

Gatcombe, 28th June, 1803.

MY DEAR TROTTER,

I have read with equal pleafure, and the moft fatisfactory information, your laft refpectable work, and hope that every admiral and commander in the fervice will not only fludy that production, but all your others; and by fo doing they will bid fair to have healthy fhip's companies, the greateft of all bleffings to the officer, and the moft important object to the flate. I freely declare that I think your labours for the prefervation of the health of the feamen of the British fleet, were more effentially beneficial to the nation, than the most brilliant victory that was ever obtained.

I remain with great truth,

My dear Trotter,

Your fincere and faithful friend, (Signed) ROGER CURTIS.

To Dr Trotter.

#### NELSON and BRONTE.

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Merion, Jan. 7th, 1803.

#### DEAR SIR;

I am much obliged by your letter of the 4th, informing me of your third volume, which I shall peruse with great pleasure. I know but little of what has passed at the admiralty; time in the first medical appointment, you will not impute it as a diferedit to me, that I have still to look to the practice of a physi-

and I shall be forry to hear you have been neglected, after the very great obligations the naval fervice is under to you. I am fure I can never repay your kind attention to me at Plymouth.

With every good wifh, I am, dear Sir,

Your friend and obedient fervant, NELSON and BRONTE.

To Dr Trotter.

Rear-Admiral Sir J. Saumarez, Bart. K. B.

" I am forry that your zeal and meritorious exertions, through which the lives of fo many valuable men have been preferved, fhould not have met with due remuneration. You have however the confciousnefs of having contributed in an effential degree to the advantages the nation has attained over the fleets of its enemies, which to a mind like yours is fuperior to every confideration."

Rear-Admiral Thornbrough.

" I ever did, and ever shall think, that you have been shamefully neglected, convinced as I am that no man ever did half so much for the naval fervice of the country."

Professor Hufeland, Archiater to the King of Pruffia.

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" It is well known how much we are indebted to the

cian for the fupport of old age. You have feen enough in the prefent period to convince you, that a meritorious public life is

" ENGLISH MEDICINA NAUTICA, for many improvements in our art. The prefent work is a new demonftration of it; and it unqueficionably classes among the best productions of modern English medical literature, &c."

Preface to Dr Werner's translation of MED. NAUT. translated by Mr Bell, late Pupil to Mr Abbs, of Newcastle.

#### The late Dr Currie, of Liverpool.

" I admire the fpirited manner in which you deliver your opinions, and truly lament the oppofition, which your benevolent and patriotic propofals feem fo often to have received. Yet you have effected a great deal, and you have fmoothed the path to your fucceffors."

## Dedication of Dr Luby's Thefis, Edin. 1803.

Thomæ Trotter, M. D.

#### &c. &c. &c.

#### VIR SPECTATISSIME,

In eligendo cui hanc differtationem facram effe vellem, diu harere nequivi ; *tibi quomvis omnino ignotus*, accipias quafo, hocce teftimonium obfervantiæ et culturæ, quas conatus veftri felices ad artem falutiferam promovendam, quas integritas tua incorrupta, in munere honorabili et perquam difficili fungendo, quafque cura veftra paterna medicos erga ingeniofos, in claffi regali occupatos, mihi in animo infigunt. not to be meafured entirely, by the quantum of a nation's money that is carried into retirement: my dependence on my profeffion will at leaft be a certificate that my department has not been polluted by peculation.

You perceive what a malignant glance this combined authorfhip darts at all my literary labours. Thofe labours I fuppofe are like most human productions, and have their failings. But I should pay a bad compliment to the authorities which I am compelled to bring forward, were I to

## INSCRIPTION

On a fervice of *tea-plate* prefented to Dr Trotter, by the furgeons of the fleet, at the conclusion of the late war; figned by feventy names.

DOCTORI THOMÆ TROTTER CLASSIS REGLÆ MEDICO PRIMARIO; MULTA DE PATRIA BENE MERENTI; HOC MUNUSCULUM, PIGNUS OBSERVANTLÆ SUMMÆ, CHIRURGI NAVALES LUBENTISSIME OFFERUNT: ET PUBLICÆ SALUTIS, ET PRIVATÆ AMICITLÆ TESTIMONIUM SACRUM ESSE VOLUERE. 1802.

Five hundred more of fimilar tellimonies are much at "Henry Dewar's" fervice.

doubt of their having done much public and private good. They have been handfomely received by all that is refpectable in medicine in this country, and have been translated into all the languages of the continent. And I confole myfelf still more, when I reflect that the various arrangements for the health of feamen are ingrafted on the fine discipline of our ships, interwoven with the forms of our officers, and thereby entailed on their fucceffors as a permanent good to the nation. These proofs not having been put in my poffeffion for the immediate purpose, will plead the stronger in my behalf: and what may appear like egotifm, will be forgiven, when flander of fuch magnitude has ventured to claim public attention.

It affuredly belongs to you, gentlemen, to encourage every inveftigation that is undertaken on proper ground to fave your people from difafter; and as far as I am perfonally concerned, you cannot be indifferent to the manner in which I have been affailed in trying to do you a favour. After having contributed to fave the naval

heroes of the country, it was an eafy tranfition to direct my studies to the fafety of your pitmen. For, if it can be demonftrated that ten thousand British seamen have been faved to the ftate, in every year of war, fince 1794, by measures and doctrines of health, which originated with me, your property and commerce have been not a little increased and fecured by my public professional duties. Besides the vigour and activity which all naval operations derive from these improvements, the ships of our merchants have feldom fuffered of late for want of hands to navigate them. Long cruizes are not found in the prefent day, to render fleets fickly. Without new aids to health, it would have been impracticable for fhips to keep the fea for four or five months; far lefs, for them to fight a heavy artillery as now done with fuch effect. I must therefore beg to observe, that you are bound by the ties of gratitude, to confider my cause as your own, and to treat with indignation the attempt which has been made to do me an injury.

The audacity of forcing medical men, or

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medical opinions on fociety cannot be fufficiently reprobated. It is the privilege of families only, to felect their own phyfician, furgeon, or apothecary. It can never be held delicate in medical gentlemen to thruft one another upon a patient; fome finister purpofe is always to be fufpected; it is a collution to all intents and purpofes. When a family has made the choice of its own phyfician and apothecary, it guarantees the integrity of the profession, and exonerates all advifers from a painful refponfibility, should any untoward circumstance follow. It is not difficult to difcover fome plot of this kind among thefe late transactions in this vicinity.

Some of my well-wifhers may perhaps think that fuch names as now appear in my favour, are fuperfluous againft the authors of thefe pamphlets. But let me remind them, that regular battalions are frequently called out to fcour a country of banditti; and though laurels may be denied in quelling a mob, the public fafety is not lefs the care of a vigilant police. My friends have never thought themfelves better employed than when they fhield me from oppreffion and infult. An enlightened and hofpitable neighbourhood will always confectate the retreat of the veteran who has fought or fludied for his country in the hour of danger. And I truft they will not lefs regard the cottage of the phyfician who has contributed a fhare to the destruction of our enemies, and who carries to his retirement the good wifhes of the whole navy. If then as a fervant of the public I am intitled to a quiet habitation among you for the remainder of my days, let me alfo hope, that as a private gentleman I may look for your efteem .- Permit me now to confign my calumniators to the punishment of their own reflections. And I have the honor to be,

## GENTLEMEN,

Your devoted humble fervant, T. TROTTER.

Newcastle on Tyne, July 27, 1806.

P.S. From the hope which I entertain that fome of your number may have the

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curiofity to direct a few experiments to be made in your premifes, I am induced to recommend alfo a trial of the vapors of the *nitrous acid*. Saltpetre, put into a heated pipkin is decomposed by the acid of Vitriol; and the fumes rife up in a thick cloud, and attract the hydrogenous gas (fire-damp) that comes in their way, and annihilate it. This acid very eafily parts with its *oxygen*, and is not liable to fome objections which have been made against the oxy-muriatic gas. It was my intention at one time, to recommend this process in preference to the other, for they both act on the fame principle.

FINIS.

T. T.

NEWCASTLE: PRINTED BY EDW. WALKER.

# A REPLY

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# DR. TROTTER'S SECOND PAMPHLET,

RESPECTING

THE MEANS OF DESTROYING

THE

FIRE-DAMP;

BY THE AUTHOR OF

" AN ADDRESS TO THE PROPRIETORS AND MANAGERS OF COAL MINES."

LONDON:

PRINTED FOR J. JOHNSON, 72, ST. PAUL'S CHURCH YARD, AND E. CHARNLEY & SON, NEW CASTLE UPON TYNE.

1806.

PRICE ONE SHILLING.

