The influence of metallic tractors on the human body, in removing various painful inflammatory diseases ... Lately discoverd by Dr. [Elisha] Perkins ... and demonstrated in a series of experiments ... By which the importance of the discovery is fully ascertained, and a new field of enquiry opened in the modern science of galvanism, or, animal electricity / by Benjamin Douglas Perkins.

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THE

INFLUENCE

OF

METALLIC TRACTORS

ON THE

human Body,

In removing various painful Inflammatory DISEASES,

Rheumatism, Pleurisy, some Gouty Affections, &c. &c.

LATELY DISCOVERED BY DR. PERKINS, OF NORTH AMERICA;

And demonstrated in a Series of

Experiments and Oblerbations,

By PROFESSORS MEIGS, WOODWARD, ROGERS, &c. &c.

By which the Importance of the DISCOVERY Is fully afcertained, and a new Field of Enquiry opened in the Modern Science of

Galbanism,

OR,

ANIMAL ELECTRICITY.

BY BENJAMIN DOUGLAS PERKINS, A.M. SON OF THE DISCOVERER.

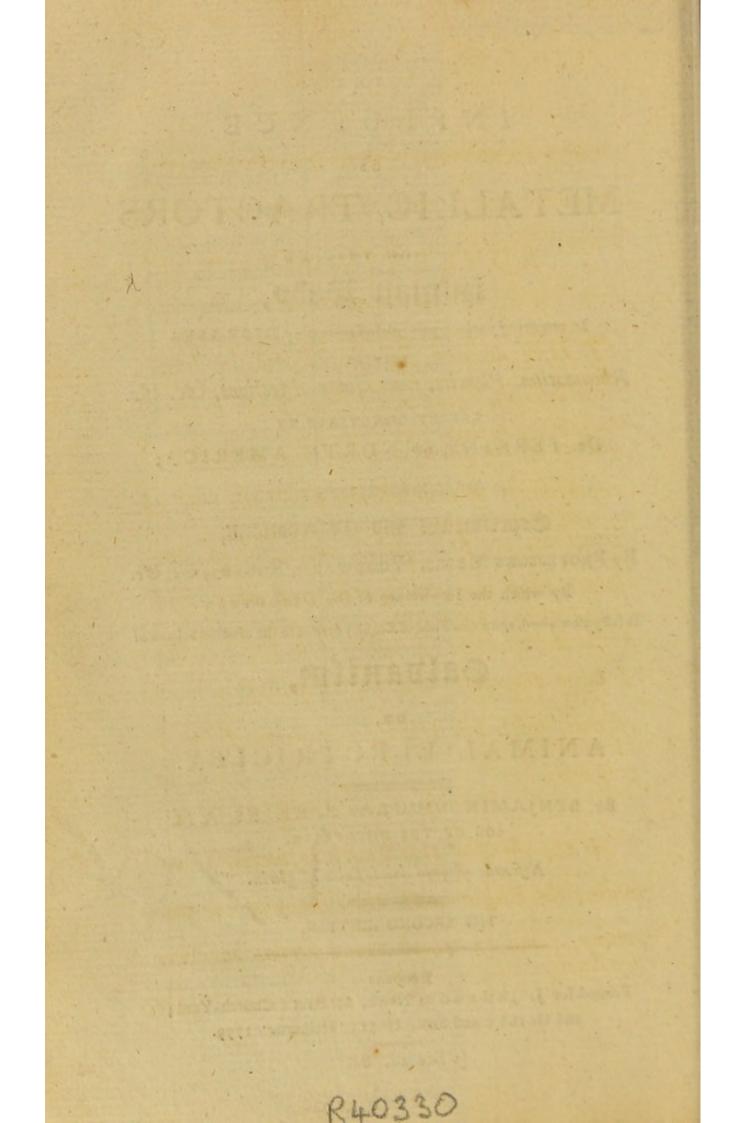
Nifi utile est quod dulce, stulta est gloria.

THE SECOND EDITION.

London:

Printed for J. JOHNSON, Nº 72, St. Paul's Church-Yard; and OGILVY and SON, Nº 315, Holborn. 1799.

[i'rice 2 s. 6d.]



ADVERTISEMENT.

THE demand for this Pamphlet having recently very much increased, in confequence of the success, which has attended the experiments of most of the purchasers of the Tractors, the first edition was sold off much sooner than was anticipated, and many applicants of late have been unable to procure any; I have therefore hastened to publish a second edition, with but trifling alterations from the original.

As the object of this Tract is merely to acquaint the Public with the history of the difcovery, (and of which every person possessing A 2 the iv

the Tractors will wish to be informed) I decline making any mention of experiments made in this country; but referve an account of them for publication with another Treatife, just come to hand from the Continent. The Treatife I allude to was recently published at Copenhagen by PROFESSOR HERHOLDT, Surgeon of division, and RAFN assessed and, and which I promise myself the satisfaction of Shortly laying before the Public. This work, which is entitled, " ON PERKINISM," is translated from the Danish into the German language by PROFESSOR TODE, phylician to bis Danish majesty, and contains experiments made with the Tractors by most of the profesfors of medicine and furgery in the hospitals of Copenhagen, whose names are familiar in the learned world.

Though however unfavourably was the sub-# jest

A DVERTISEMENT.

ject prefented to their view, and however ill provided were they with the documents neceffary for purfuing their investigation; yet they have been enabled to determine, that " the discovery was of great importance to the healing art; and that the charge of its being fimilar to Magnetism, which has been injuriously alleged, was without foundation."

The TRACTORS, with PRINTED DIREC-TIONS, rendering the mode of application perfectly intelligible to every capacity, are kept constantly for fale, for five guineas the set, at N° 18, LEICESTER SQUARE, where I attend patients or purchasers until half past two o'clock every day. The asternoon is der voted to patients abroad.

Of Meffrs. Ogilvy and Son, Bookfellers, N° 315, Holborn, they may also be obtained.

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The

ADVERTISEMENT.

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The Tractors may alfo be had of MR. LANGWORTHY, furgeon, N° 11, Bond Street, Bath, whom I have appointed my Agent in that place, and who has written an ingenious treatife on this Difcovery, entitled, "A VIEW OF THE PERKINEAN ELECTRICITY, OR AN ENQUIRY INTO THE INFLUENCE OF METALLIC TRAC-TORS;" in which is introduced a number of experiments made in this country. Sold by Johnfon, St. Paul's Church Yard, and Cruttwell, Bath.

BENJAMIN DOUGLAS PERKINS.

No. 18, Leicester Square, January 1799.

PREFACE.

HE following pages are defigned to give an hiftorical fketch of the origin and progrefs of the DISCOVERY, lately made by Dr. PERKINS of Connecticut, relative to the beneficial influence of his METALLIC TRACTORS in various difeafes.

In explaining the treatment this difcovery received on its first introduction to the world, the Author (if a Son can hold forth the language of impartiality when speaking of events so interesting to a Parent) has A 4 ftrictly

frictly aimed at correctness in his statements, and, as far as the subject would admit, has carefully avoided personalities.

He is, however, aware that his detail of certain medical transfactions will expose him to the animadverfions of a particular class; yet he confidently hopes that the candid and enlightened public, which he address, by duly appreciating the tendency of those measures, and the motives which impelled them, will decide justly to what extent he may deferve the imputation of arrogance or dogmatism.

In the latter part of this tract is introduced a feries of EXPERIMENTS, made by many literary and philofophical characters in the United States,

States, for the purpole of alcertaining the reality and importance of the difcovery; and which were communicated to Dr. Perkins for publication.

These are not cited with a view to establish in this kingdom the credit of the *Tractors*; but as the experiments are immediately connected with the history of the Discovery, the design of this treatise could not be answered but by inferting them.

They will also ferve as a specification of the diseases which are subject to the Metallic Influence, and are descriptive of the effects which may be expected in similar experiments.

But the writer does not wish to rest

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reft the credit of the difcovery merely on the authority of great names, however refpectable and influencial thefe may be; for he flatters himfelf, when favoured with fuitable fubjects, he fhall be able to give a fpecies of evidence, to every perfon, far more fatisfactory than any teftimony; viz. that of ocular or experimental demonftration.

For this purpole, the writer has croffed the Atlantic, and become a refident of London, that he may devote his time and attention to the diffusion of this important difcovery, and its application to the relief of the miferies of mankind; to which the prefent Effay may be confidered as an introduction.

The various obstacles which always ways prefent themfelves to the authors of any material innovation, more especially one which may have to encounter INTEREST as well as PREJUDICE, he conceives will warrant him in having fecured, by a patent under the great feal of England, the exclusive right of "making, using, and vending his Tractors in this kingdom;" as this measure alone could fecure the adventurer a recompence, adequate to the expences which must necessarily arise in diffeminating a knowledge of their utility and importance.

The price at which he offers the Tractors * to the Public, the Author

* Every genuine Set of the Tractors is stamped with the words, "PERKINS PATENT TRACTORS;" and, to the Directions accompanying them, is added a receipt, numbered and figned by the Patentee.

conceives

conceives cannot be a reafonable caufe of complaint. Should they produce their falutary effects, in the expeditious and very innocent manner flated in the following experiments, even in one half of the cafes in which they fhall be employed, Five Guineas muft be acknowledged but a very trifling confideration.

Whoever has been in the habit of procuring medical advice can beft judge how far that fum will go towards paying for the attendance of a phyfician ; and after the cure is effected by the Tractors, like medicine, they are not confumed and gone, but may be always ready to be employed on fubfequent occafions.

It is no inconfiderable circumftance in favour of this external application, that

that it can never be productive of injury, which may not be faid of any medicine in the whole Materia Medica. The ferious confequences which so often arise from an injudicious use of the most valuable medicines, as mercury, opium, &c. are too generally known to require any com-The Tractors produce no ment. effects in any difeases excepting those in which there is prefent an extra degree of that principle, which is the cause of the disease, and as they perform the cure by taking off only this excefs, and reftoring the equilibrium, it will be readily perceived that they can have no influence, either injurious or falutary, in complaints of the opposite class, viz. those which arise from a diminution of that principle.

The

The Reader, it is hoped, will not infer that the operation of the Metallic Influence is recommended as an ABSOLUTE SPECIFIC in all the difeafes hereafter enumerated. Some inftances must occur, in obstinate cafes of long duration, which will baffle all human affistance.

As the practice with the Tractors is extremely fimple, as well as innocent, and the directions accompanying them perfectly intelligible to every capacity, the Author need not enlarge on the extensive benefit of which they may be productive in Infirmaries, Poor Houses, and also in Private Families. The numerous chronic pains in those institutions, and the various accidents and complaints, as burns, scalds, head-achs, &c. incident

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cident to every family, will daily afford opportunities of experiencing their utility.

Thefe pages are, with much diffidence, fubmitted to the Public. The Author is aware that they may contain many imperfections; but he flatters himfelf the fubject will not be thought wholly unworthy of attention, particularly in an age and reign, which juftly pride themfelves in the patronage of difcoveries in fcience, and improvements in the ufeful arts.

No. 18, Leicefter Square, 1798.

ERRATA:

The Reader will pleafe to correct with his Pen the following Errors of the Prefs.

Page 5. line 22. dele cbronic. 32. line 1. for caufe read caufes. 2. for compelled read impelled. 5. for formed read framed.

INFLUENCE

THE

off to more point of the

METALLIC TRACTORS, &c.

DOCTOR PERKINS of Connecticut in North America, for many years entertained the opinion that metals poffeffed an influence on the human body, which had hitherto efcaped the fcrutinizing eyes of phyfiologifts. This opinion was the refult of fome phenomena, which in the courfe of his extensive practice had accidentally arrefted his attention.

Here it is neceffary to obferve, that in the United States of America, as in all other new fettled countries, labour has not yet received the divifions which characterize the more refined and civilized nations of Europe. The practitioners of phyfic are neceffitated, in many parts of the country, to attend in cafes which belong more immediately to the province of furgeons and apothecaries than to that of phyficians. The first remarkable incident that prefented itself to the notice of Dr. Perkins, was the fudden contraction of a muscle, when he was performing a chirurgical operation.—This he observed regularly took place whenever the point of the metallic instrument was put in contact with the muscle. Struck with the novelty of the appearance, he was induced to try the points of wood, and other substances; and no contractions taking place on these experiments, he thence inferred that the phenomena could be afcribable only to the influence of the metal.

About the fame time he obferved, that in one or two cafes, a ceffation of pain had enfued when a knife or lancet was applied to feparate the gum from a tooth, preparatory to extracting it; and in the fame year he difcovered, that momentary eafe was given in a few inftances, by the accidental application of a metallic inftrument to inflamed and painful tumours, previous to any incifion.

While thefe, and a few other cafes of a fimilar nature, in which the perfectly tranquil flate of the patient's mind, with every attending circumflance, precluded the poffibility of a fallacy, were engaging his attention, the news of the late important difcovery of GALVANI, the celebrated profeffor feffor at Bologna, relative to the furprifing effects of metals on the nerve and mulcular fibre, confirmed him in his hypothefis *.

From

* Since the publication of the experiments of GALVANI, very numerous have been the attempts of fubsequent physiologists to improve on this discovery. Among others, Valli, Volta, Fowler, Monro, and Cavallo, have favoured the public with their refearches into this interesting subject.

Cavallo, one of the lateft of these experimentalists, after citing most of the important experiments of the gentlemen who have written before him, together with the addition of his own, comes to the following conclusion:

" The principal phenomena of animal electricity, viz. the property of being put in motion by a metallic communication made between the nerves and muscles, is not peculiar to a few animals only, but seems to be a property of all animals in general; a law of nature which admits of few exceptions, and even these exceptions are of a very doubtful nature.

" The experiments have already been tried with a great variety of terrestrial, aerial, and aquatic animals.

"The human body, whilft undergoing certain chirurgical operations on its recently amputated limbs, have been convulfed by the application of metals. From the ox and the horfe down to the fly, the effects of metallic applications have been repeatedly and unequivocally obferved. With fome the power lafts longer than with others; the movements alfo are more or lefs evident and powerful, according to the various nature and difposition of the animals.

" The leg of a recently dead horfe was agitated fo violently by the application of a shilling and a bit of tin-foil,

that

From this period he began to turn his attention to this his favourite purfuit, and fought with eagernefs for fubjects which might enable him to afcertain the power of metallic influence when applied to the difeafes of the human body.

that the firength of a robuft man was unable to check the blow. Several animals, which fome time ago were thought not to be affected by the contact of metals, have been lately caufed to contract, in confequence of the difcovery of more active metallic combinations, or of fome of their more fenfible parts.

" The preceding pages contain all the remarkable facts that I have been able to collect, relative to a fubject which is likely to become of great importance. Those furprifing effects of an unknown caufe, generally inexplicable, and fometimes contradictory, feem to admit of no theory fufficiently probable or fatisfactory; nor can we yet fee how they may be applied for the benefit of mankind. An attentive confideration of the fubject, will naturally fuggeft fome doubts and queries which can only be answered by future experiments and discoveries. In what manner does artificial electricity affect the muscles? Does it act as a mere ftimulus or otherwife ? Where is the animal electricity generated, and by what mechanism is it transmitted from one part of the body to the other? Does it proceed from the brain, or is every nerve actuated by that generating power? What reafon can there be for the necessity of using two different metals ? And, after all, are these phenomena really the effects of electricity, or of fome other unknown fluid, sui Generis." (Complete Treatise on Elect. vol. iii. page 69.)

In

In the course of an extensive practife these were frequently found, on which he never failed to make fuch experiments as were calculated to accomplish his object.

He proceeded to make Inftruments of what are called the perfect metals as well as of the bafe ones, and likewife of various compound metals, and tried them all, fometimes with lefs and fometimes with more fuccefs, than he had ever hoped or expected. These experiments he continued for feveral years; convinced from what he had already noticed that he was right in his principle, and ardently hoping that further experiments, and obfervations, would enable him to apply it to the alleviation of human affliction, and the general benefit of mankind.

The refult corroborated and indeed exceeded his most fanguine expectations; for he discovered that, by drawing over the parts affected in particular directions certain inftruments which he formed from metallic fubstances into certain shapes, he could remove chronic rheumatifin, fome gouty affections, pleurifies, inflammations in the eyes, eryfipelas, and tetters; violent spafmodic convulfions, as epileptic fits; the locked jaw; the pain and

Hound

and fwelling attending contufions; inflammatory tumours; the violent pains occafioned by a recent fprain; the painful effects of a burn or fcald; pains in the head, teeth, ears, breaft, fide, back, and limbs; and indeed most kinds of painful topical affections, which came under his care and observation *. The inftruments producing these effects are termed TRACTORS.

At this period, viz. about the close of the year 1795, Dr. Perkins was chairman of the Medical Society in the county of Windham, and was its first representative in the general Medical Convention, which constituted him a Fellow of the *Connecticut Medical Society* †.

* Some of the exceptions to this general influence of the Tractors, in these complaints, and the circumstances which may prevent their success, are enumerated in the following pages, but more particularly in the *printed directions* which accompany each set of the Tractors.

+ The Connecticut Medical Society is composed of most of the respectable physicians in that state. These physicians hold quarterly meetings in the several counties where they reside, having a chairman and other officers necessary for their association.—These county societies, as composing a part of the Con. Med. Soc. semi-annually fend representatives to a general meeting, which being formed of delegates from each county in the state, is called the Connecticut Medical Convention. ENEAS MUNSON, M.D. is president of this institution,

To

To this Convention he foon after reported his difcovery, and perhaps from its novelty and apparent fimplicity this report was received by fome with doubt and caution, and by others even with contempt. The first impression on these gentlemen was, that the operation of the *Metallic Influence* was a mere revival of *Animal Magnetism*. He was, however, requested to make a further communication on the subject at the ensuing meeting, which was to convene fix months afterwards.

The fubject by this time began to excite public attention and general curiofity. By those only who had seen or experienced the effects of the *Trastors* were they credited, while those who judged only from rumour confidered the metallic operation as a renewal of *Mesmer*'s treatment, and the shafts of ridicule were thrown at the dif-

tution, whofe long and extensive practice in his profession, and whose success in treating the yellow fever at New Haven in 1794, and publication on that difease, will ever bear teftimony of his abilities and candor.

If the reader fhould difcover, that the conduct of fome of the fellows of this Society has not altogether comported with the laudable object of its eftablifhment, he is defired to obferve, that, as most of them have had the candor to acknowledge their error, the cenfure ought not to be extended beyond the few individuals who merit it.

coverer,

coverer, as the reviver of his exploded practice. With these men Dr. P. was supposed to have lost his fenses; and his hypothesis, which they have fince honourably acknowledged to be founded on reason, and supported by experiment, was then efteemed the delusive dream of chimerical projection!

Shortly after the adjournment of the Medical Convention, to which I have juft referred, Dr. P. influenced by the advice of his friends, and defirous of being fituated in a more extensive field for exhibiting his difcovery, repaired to Philadelphia. The public hospitals, alms-houses, infirmaries, and other inflitutions * which ornament that populous city, and do honour to its inhabitants, prefented excellent opportunities for making experiments on a variety of new cafes, and subjecting his hypothesis to a feverer test. As Congress was now in fession, he performed his operations, not only in the prefence of the most eminent physicians, but also before the most diffinguished

* Since that period the Tractors, by order of the directors, phyficians, &c. who attended the operations, have been purchased for the uses of those institutions in Philadelphia, New York, Boston, Newbury Port, Salem, &c. &c.

perfonages

perfonages of the Union. General WASHINGTON, then PRESIDENT of the United States, convinced of the importance of the difcovery from experiments in his own family, availed himfelf of its advantages by purchasing a set of the *Tractors* for their use.

The CHIEF JUSTICE of the United States*, feveral of the Senators and Reprefentatives in Congrefs, and other literary characters, honoured the difcoverer with their attendance at a great variety

* Extract of a Letter from the Honourable OLIVER ELS-WORTH, LL. D. Chief Juffice of the United States, to the Honourable JOHN MARSHALL of Virginia, late one of the Envoys Extraordinary from the United States to the French Republic.

" Philadelphia, March 7th, 1797.

" Dear Sir,

"The Gentleman who will deliver this letter is Dr. Perkins of Connecticut, a refpectable phyfician, and difcoverer of the *Metallic Tractors* for the relief of pain. Strange as his hypothefis may be, experiments give it countenance. In fome cafes the effects wrought are not eafily afcribable to imagination, great and delufive as is its power.

"Should there be cafes favourable for experiments in your vicinity he would be very ready to operate, and that in the prefence of perfons most competent to detect a fallacy, riety of his experiments, as well as the medical gentlemen of Philadelphia and its neighbourhood.

In the prefence of fuch honourable and accomplifhed judges, Dr. Perkins operated at the hofpitals, &c. on patients afflicted with pains and inflammations in almost all their variety,

fallacy, if there is one; or, on the other hand, to extend the improvements, if, in fact, a new principle is difcovered."

The author here takes the liberty to add an extract of a letter from the Rev. SAMUEL MAGAW of Philadelphia, D. D. Fellow of, and Secretary to the American Philosophical Society, &c. to the Right Rev. Bishop MADDISON of Virginia.

" Right Rev. Sir,

March 6th, 1797:

"This will introduce to your perfonal acquaintance a very refpectable perfon, Dr. Perkins of Connecticut, if in the courfe of his journeying he may vifit Williamsburg, and have it in his power to wait on Bishop Maddison.

"The Doctor, by a felicity of genius and inveftigation, has, it would feem, opened a highway to healing influences, which promifes fair to conflitute a new æra in the Medical Annals. His *Metallic Tractors*, their ufes and efficacy, in a vaft variety of cafes, have gained him great celebrity; and I am difpofed to think, even from what I have *known myfelf* of their defert, a celebrity not precarious, unfounded, or fugitive, &c. &c."

and

and I believe I may fay to the general fatisfaction and furprife of the fpectators. Difeafes of the most obstinate nature, which had baffled medical art, were removed by the *Metallic Tractors*: and many perfons of an advanced age, who had been crippled for years with the chronic rheumatism, were, in feveral instances, perfectly cured.

By most of those who witnessed the surprising effects of these operations, the discovery was considered as one of the most happy and important that has ever been made for the benefit of mankind. The many stubborn and indisputable facts, which demonstrated that the operations had no similitude whatever to Animal Magnetism, began now to remove prejudices, and gain it reputation.

By many of his beft friends, the difcoverer was ftrenuoufly advifed to avail himfelf of the advantages of the *patent* law, which was framed for the purpofe of " promoting the progrefs of ufeful arts," and to fecure to himfelf the advantages derivable from what they conceived fo happy a difcovery. As he had a large family, had put himfelf to confiderable expence in purfuing his ideas to this pleafing refult, and, by neglecting all his his other concerns for the profecution of his favourite object, had injured his circumftances, he at length determined on this measure, and accordingly took out a patent in the United States.

By this patent the " exclusive right of making. conftructing, using, and vending to others to be used, his *pointed metallic instruments*, in removing various pains, &c. is granted to Dr. Perkins, his heirs, administrators, and affigns, for fourteen years;" and all other perfons are inhibited to make or use his instruments without his licence.

Having effected this, and furnished a number of perfons of the first character then at Philadelphia from all parts of the Union, with his *Patent Metallic Tractors*, he determined to return to Connecticut, to fettle his affairs, and to refign every other pursuit, in order perfonally to exercise his new remedy in various parts of the United States, and thereby diffeminate a knowledge of its importance.

Some time prior to making this difcovery public, Dr. Perkins had been engaged in a controtroverfy on a medical fubject with fome of the members of the Connecticut Medical Society. Such controverfies controverfies in that country* are frequently carried to fuch lengths, that the combatants become perfonal enemies; and it feldom happens that the vanquished can forgive the conqueror.

At this time the recollection of their former difagreement was fresh in the breasts of Dr. P.'s

· Whoever has read the Philadelphia Gazettes during the late diffreffing calamity of the yellow fever, will readily perceive the prevalence of this unhappy disposition among the medical men of the United States. The well known outrages, in confequence of the controverfy between Dr. Rush and Dr. Currie, committed by both their parties, during the autumn of 1797, have not done honour to that benevolent philosophy which is characteristic of an enlightenened age and a civilized people. Among men where the more aveighty arguments of the club and cane, and those fucceeded by challenges, have affumed the place of fair, candid, and friendly difcuffions, becaufe there happens to be a triffing difference in opinions, we mult not be furprifed, or even complain, if an inftance occured in which an hafty and illiberal decision had taken place on a medical fubject, which related to a very material innovation, more efpecially as this innovation was attempted by a perfon very obnoxious to the party which assumed the power of deciding. For the particulars of an encounter of the above description, see Mr. Rush's defence of his conduct in laying violent bands on Dr. Rofs, a friend of Dr. Currie's. The good maxim of Sallust would be attended with happy confequences, if more generally observed by the medical profession in America:

" Concordia paroa res crescunt."

antagonifts;

antagonists; and when it was known that he was gone to Philadelphia, and was there making experiments with his *Tractors*, these gentlemen endeavoured in his absence to effect his ruin. When men are once determined on making a facrifice, it is easy to gather sticks from the thicket with which to offer up the victim.

The tongue of flander was now let loofe against the influence of the *Tractors*, and reports fabricated to detract from the merits of the discovery. So effectually did these *liberal-minded brethren* exert themselves against the discoverer, that, by the next meeting of the medical society, they had actually formed a party to disgrace him in his absence.

Before he could return to Connecticut, and make to the fociety the further communication which he had at his laft meeting been appointed to do, the convention affembled, and without waiting for fuch communication, without even attending to a fingle operation, or acquiring the leaft knowledge of the principle or practice of the difcovery (except the little that had been faid to them fix months before) and without feeing a fingle fet of the *Tractors*, they actually paffed a vote, vote, written and prepared by Dr. P.'s avowed enemies fome weeks before-hand, pronouncing it the remains of animal magnetifm: and in order further to deter any of their members from afcertaining the merits of the difcovery by experiments, they " directed their Secretary to cite any member of their fociety practifing as above (i.e. using the Tractors) before them at their next meeting, to answer for his conduct, and render reasons why he fhould not be expelled the fociety for fuch difgraceful practices." This vote was of confiderable length, and was couched in terms which would far better have become the perfecutors of a Copernicus and a Galileo, in an age of ignorance and fuperflition, than those who would be fondly confidered as the patrons of fcience and philosophy in the enlightened æra of the eighteenth century. In juffice, however, to the refpectable inftitution to which those gentlemen belonged, it is neceffary to observe, that the convention was very thinly attended, and confifted of few befides the professed enemies of Dr. P. Neither Dr. Munson their Prefident, a gentleman whofe fuperior eminence in his profession is equalled only by his reputation as a philosopher and a man of letters, nor any of the reprefentatives from the medical fociety of the county in which

which the difcoverer refided, were then prefent, though they, from living where the practice first

originated, were the only members at that time capable of deciding on the merits of the difcovery.

Dr. Perkins, returning a few weeks after from Philadelphia, afforded thefe gentleman an opportunity of wiping away the ftigma which had been caft on them by the unprecedented conduct of a few. All of thefe, notwithftanding the dreadful veto that had been pronounced against it, immediately provided themfelves with the Tractors, and eagerly fought for fubjects which would afford them means of bringing the practice to a proper teft, determining that, when they reported they would be able to defend their decifion by the found logic of experiment. After a fufficient time had elapfed for afcertaining the truth, their reports were published, and the refult * was as honourable and fatisfactory to the difcoverer, as it was difgraceful and irritating to his enemies.

The limits, as well as the object of the prefent publication, will not allow me to enter at large into a detail of the evidences which thoroughly fatisfied all who experimented with the *Tractors*,

* See their Experiments in the latter part of this Tract. 4 that that no analogy or affinity exifted between the operations of the metallic influence, and the exploded practice of animal magnetifm. But a few of the most interesting facts which led to this decision, shall now briefly be recited.

On the fubject of Animal Magnetism, it was conceived that no information fo authentic could be obtained, as that of the report of the commiffioners at Paris (Dr. FRANKLIN at their head, and LAVOISIER one of their number) appointed by the late Lewis XVI. for the express purpose of afcertaining the merits of the practice. This enquiry, undertaken by the greatest philosophers of the age, was conducted with ability and candor, and the refult is univerfally known to have been an explofion of the doctrine, and a cenfure upon its inventor. It was found that the effects produced by Melmer, were not owing to any newly difcovered law or principle in nature, as he pretended, but folely afcribable to the influence of " compref-Sion, imagination, and imitation *." Among the numerous experiments made by the commif-

* Some of the subsequent practifers of this art, have pretended to produce some effects unassisted by compression or imitation.

C

fioners,

fioners, accompanied by M. Deflon, the pupil of Mefmer, " not more than one perfon out of five experienced any fenfations at all, and thefe were fubjects extremely irritable, extremely nervous, and generally females;" and on them the effects were not falutary, fuch as a transition from pain to eafe, a reduction of tumors, removing inflammations, &c.; but, on the contrary, the treatment in Animal Magnetifm " generally produced pains, attended with dangerous fymptoms, fuch as fpitting of vifcous humours, and even blood; coughing, hiccoughing, agitations, and convulfions; ftriking of the breaft with precipitate and involuntary motions," &c. Thefe effects ufually took place antecedent to what was called the *Crifis*.

It was demonstrated by the commissioners, that " all these effects were the plain and rational result of the various applications, as the *touch*, the hard and continued *pressure* upon the hypochondres, on the lower regions of the belly, and other very sufceptible parts of the body; added to the influence which a shew of solemn preparations and well adapted music*, might have upon the mind

• To aid the delusion, and affist in giving these farcical fcenes the appearance of reality, nothing could have been more mind of a patient infpired with confidence and enthuliafm."

Having obtained every neceffary information from this report, the medical gentlemen, who were attempting to inveftigate the merits of the *metallic influence*, next directed their attention to difcover if any affinity or refemblance could be found between the operations of Dr. Perkins and the treatment of Mefmer.

After almost innumerable experiments, which were made on fubjects of all descriptions, as it respects their difeases, ages, or stations in life, and, in short, diversified with every variety which occurred to them; it was acknowledged that there could be no resemblance found, either in the modes of application, or in the effects which were produced, between the operation of the *Tractors* and animal magnetism. It was observed, that the

more admirably planned than the introduction of the *piano* forte, which was continually playing tunes on keys that corresponded with the changes which, it was intended, fhould take place in the animal fpirits of the patient.

There are but few perfons who have not a thousand times experienced the powerful effects of music, and realized their fusceptibility of its influence.

C 2

author

author of the difcovery of the metallic influence, always fought opportunities for performing his operations in the prefence of philosophers and men of science, " who should be competent to detect a fallacy, if there was one; and, on the other hand to extend the improvement, if, in fact, a new principle is discovered *."

It was found that the difeafes, in which the operation of the metallic influence was most fuccefsful, are directly opposed to, or very different from, those in which animal magnetism had produced effects. Highly nervous complaints, attended with debility, and those which arise from a diminution of the nervous energy, in which the latter chiefly appeared effective, have rarely been relieved by the former; also none of those dangerous or ridiculous fymptoms, which in animal magnetism were faid to be preparatory to a crifis, took place here; nor any thing which bore the least refemblance to the criss itself. The pains, inftead of requiring an operation of two hours or more, as was the cafe in Mefmer's treatment, are generally removed by the Tractors in the course of between twelve and thirty minutes; and in-

* See Judge Elfworth's letter in note, page 9.

ftead

ftead of their being fuccefsful only among the lower claffes of mankind, who are most fubject to credulity and imposition, they have hitherto been chiefly used among men of fcience and respectability, who have often been disposed, at first, to treat them with ridicule, from a persuasion that the operations were all a fallacy.

The circumftances under which the *Tractors* produce no effect, alone fufficiently prove that a phyfical caufe, independent of the power of imagination, is concerned in the operations; as for inftance, relief from pain has never been procured by them, on parts of the body to which any * oily applications, or where any adipofe fubftances have been recently employed.

Indeed,

* The obffacles which oil prefents in exciting muscular motion, or the animal electricity, is particularly mentioned by Galvani, the discoverer of that influence. (De Viribus El. in m. m. p. 22.

Dr. FOWLER alfo, whofe ingenious experiments on the fame *influence* have fucceeded those of Galvani, has the following remarks. (*Exp. and Obs. on Anim. Elect. p.* 18.)

"Oils of all kinds are fo far from conducting, that if the fingers of the perfon holding either the probe or the zinc have perfpired much, even this operates as a complete obflruction to the passage of the influence. The instant the perfpired matter has been wiped away, and the fingers have been dipped in water, it again excites contractions. When

the

Indeed, perfpiration itfelf is fo effectual a barrier to the metallic influence, that the *Tractors* have never been ufed to fo much advantage in the warm fummer months of America, when the hands of the operator, and the fkin of the patient, are generally covered with it. But if the part be thoroughly wafhed, and the oil, adipofe, or perfpirable matter be perfectly removed, relief will be immediately obtained. Chronic pains, after an injudicious ufe of mercury ; or old pains, which are the effects of a venereal complaint, even where no mercury has been ufed, have never been radically removed by the metallic influence.

Another fingular phenomenon occurred, viz. That in fome inftances the metallic influence, when excited by different perfons, produced different effects. This fact, however extraordinary it appeared, and however ftrenuoufly it was at first opposed, is now universally acknowledged. Experiments were made to ascertain this point with fuch accuracy, as to preclude the possibility

the inteffines of a frog are removed, and its abdomen is filled with oil, no contractions can be excited by placing one metal upon its fciatic nerves, and bringing another in contact with it, either above or below the furface of the oil."

of

of a fallacy; and the refult proved, that there were perfons who might use the Tractors for any length of time, in difeafes which were fuitable for the operation, and produce no perceptible effect; when by placing them in the hands of another perfon, who should perform the operation precifely in the fame manner as before, the pain or inflammation would be removed directly. It is true, this fingular property is characteriftic but of few, yet among the great number who have purchased the Trastors in America, there are fome who have never performed a cure. These gentlemen, whenever an operation is required, put the Tractors in the hands of a bye-ftander, who applies them under their direction, and the ufual falutary effects are the immediate confequence.

This curious fact has been mentioned, by the writers on the philosophy of the metallic influence, as a proof of its analogy * to the influence discovered by Galvani.

I fhall

fight,

* See the experiments of professor Volta, relating to the various effects of the metals when applied to the sense of taste.

Cavallo, alfo, when fpeaking of the influence of metallic applications, which are rendered fufceptible to the *taffe* and

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I shall next enumerate some of the diseases which were found to be fuitable subjects for the *Tractors*; and those who have experienced or understand them, will easily judge whether the imagination can have any influence in their cure. Can the imagination cure a gout? remove, almost instantaneously, the spass of an *epileptic* fit, when the patient is divested of every exercise of reason? or the contractions of a *locked jaw*?—Can imagination remove the pains and instantaneous * of the eyes?—reduce tumours,

fight, has the following remarks, "Different perfons are varioufly affected by this experiment." [Application of zinc and filver to the tongue.] "With fome the fenfation or tafte is either very flightly or not at all perceived, whilft with others it is very firong, and even difagreeable. Some think it a mere pungency and not a tafte." "When the experiment was applied to the fenfe of fight," he fays " this phenomenon is not alike perceived by every perfon, fome being hardly fenfible of it, whilft others obferve a very firong flafh.

"In performing both of the above-mentioned experiments, viz. that which produces the tafte, and the other which produces the flath of light, fome perfons imagine to feel a gentle warmth diffufe itfelf over the tongue from its root to the very apex." Cavallo's Complete Treatife on Elect. vol. iii. page 58.

• See the effects of Galvanism on inflammations, in Fowler's Exp. 5 Obf. o Anim. Elect. page 87, and 128, 129.

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as the quincy, boils, and whitlows, if applied before a fuppuration has taken place?—remove the fevere inflammations, pains, and tumors of the ftings and bites of poifonous infects ?—or of burns and fcalds, and those on an infant? or inflammations of ringworms, tetters, and erysipelas? Or can imagination cure the lameness of a brute *? These are fome of the affections which the Tractors generally cure.

It may be naturally conceived, that the evidence exhibited must have been powerful and

* I once faw a horfe, which, in confequence of a firain in the paftern, had become exceedingly lame, and from the intenfe heat of the hoof on that foot, and the actions of the animal, was fuppofed to be in great pain, completely relieved in the courfe of ten minutes by the operation of the *Tractors*; the hot hoof becoming of the fame temperature as that of the other. From being fcarcely able to put his foot to the ground, he became fo much better in about twelve minutes from the time the metallic inftruments were firft applied, that a gentleman mounted him and rode away, being but juft able to perceive his lamenefs.

I have heard of other fimilar inflances, but this is the only one which has come under my perfonal obfervation.

I have frequently, however, heard of the little painful fwellings on the back, generally termed *faddle boils*, being cured by the operation of the metallic influence.

conclusive,

conclusive, to induce the members of the Connecticut Medical Society, individually, to come forward and declare their fentiments to the world in favour of the operation of the *Tractors*, when they thereby openly violated an act of their fociety, and hazarded the ftigma of an expulfion.

a hele are forme of the affections which the frace

The Sceptic, although unable to account for a thousand of the daily occurrences of life, doubts and queftions the reality of newly difeovered principles, caufes, and effects, in opposition even to the testimony of ocular demonstration, becaufe he cannot comprehend them with a Creator's eye; but the real philosopher willingly acknowledges the existence of a fact, whenever it is demonstrated to him by competent and fufficient evidence. The teftimony which was by this time adduced, in fupport of the effects produced by the metallic operations, was of a nature fo refpectable and incontrovertible, that many of those, who were at first perfuaded to join in the general ridicule, were now candidly disposed to afcertain the truth or fallacy of the doctrine, by the teft of fair experiment. And, thus convinced, many of the Fellows of the Connecticut Medical Society, honourably acknowledged the error of CO.g. HILLY the

the Convention, in acting fo precipitately on a subject of such great importance. Prefident MUNSON himfelf read before the Society, convened at New Haven, a learned and ingenious Differtation on the fubject of Animal Magnetism and Animal Electricity. After giving an hiftorical account of the impositions of Melmer, and · according with the justice of the report of the commissioners in France, to which I have before referred, he inftanced the late important difcoveries of Galvani, and the ingenious experiments of Valli, Volta, Fowler, Monro, and Cavallo, in animal electricity; and concluded with the following remarks: " After all these discoveries of the existence of a certain influence, by whatever name it is called, in the nervous fystem of animal bodies, which has properties, and is fubject to the fame laws, in many refpects, with the electrical fluid, and which may be excited or educted by the application of metallic fubftances, would it appear strange to a philosopher, or would it exceed the credulity of a well-informed phyfician, that Metallic Points *, applied to perfons difeafed with pain, had given relief?-To none, I imagine, who believe in the existence of such an influence,

• The tractors have often been called ' metallic points.' which (28)

which I know to be demonstrable beyond all contradiction.

" Is it not much ftranger to common fense, that philosophers, or physicians, should be so obstinately sceptical as to difpute facts attested by the most respectable characters, merely because they have never been able, a priori, to account for the effects produced? Is it becoming a philosopher, or phyfician, to treat a difcovery fo important and well attefted, with ridicule, buffoonery, and contempt, becaufe it is new, or becaufe they cannot account philosophically for it themselves? If it is unbecoming an individual to cenfure a difcovery or invention before trial, and without a candid inveftigation, how much more fo for a Society incorporated for the express purpose of investigation and improvement in the knowledge of the healing art.

" The gentleman who has made the difcovery of a new application and mode for the relief of the pained and afflicted, before he communicated his difcovery, was thought a worthy member of the General Convention, a Fellow of the Connecticut Medical Society. Whatever advantages the gentleman might have had, from the experiments ments made in Europe, ftill his application of metallic fubftances for the removal of difeafes, muft, I conceive, be acknowledged at leaft an improvement on their difcoveries, and fomething peculiar to himfelf; and I conceive it to be a difcovery capable of great improvement for the benefit of mankind. It is certain, there are facts of its influence too notorious, and fupported by fuch indubitable teftimony, that it is futile to imagine it can be hiffed out of exiftence—mankind will not be laughed out of their fenfes.

"Let every member of the medical fociety make a *candid* trial with the *patent Tractors*; keep a register of their experiments, and in many instances I doubt not but they will prove efficacious in the removal of difeases, and will effect it according to the old adage, *cito*, *tuto*, *et jucunde* *."

The public fentiment being now difpofed to acknowledge the importance of this difcovery, those few members of the convention, who began the opposition, had now recourse to another measure, by which they intended to have torn from his brow the laurels he had acquired, and with them adorn the buft of another. For this purpose, it was industriously reported

· Quickly, Safely, and pleasantly.

that

that the difcovery did not originate with Dr. P. but that he gained it from a neighbouring phyfician *; and as that gentleman was dead, they fuppofed that the truth could never be explored. It was well known, that the gentleman alluded to was a man of very fuperior talents, and that electricity was his favourite fludy; it was also known, that he was on the most intimate terms with the difcoverer for many years before his death. But it was found upon enquiry, that none of his medical pupils, of which he had a large number, or any other perfon, had ever heard from him, or feen any thing in his practice, fimilar to the operations of Dr. P. except once, when he attempted to remove the pain from a tooth by applying a fimple metal, which he then called Dr. Perkins's remedy.

This fubterfuge being exposed, one would have conceived that those *anti-innovators*, more effecially after the fentiments conveyed in their Prefident's differtation, and the various other publications of the fame nature, would have relinquished their perfecution; but, like fome of the heroes of the Chevy Chase, although vanquished, they would not yield:

> " But when their legs were finit away, "They fought upon their flumps."

> > * Dr. Waldo of Connecticut.

In May laft, 1797, these gentlemen again affembled, but found it impoffible to proceed on the grounds of their former refolution, without diffolving the fociety: for if they proceeded to the expulsion of every one who had engaged in these " difgraceful practices," they would have to pronounce ju gment against one half of the members, with the Prefident at their head; and, as the reputation of the metallic operation was now eftablished, not only by the publications of the experiments made by most of the literary characters of the United States, but by the members of their own fociety, they were compelled to give up their first point, viz. that the practice was a revival of Animal Magnetism. However, a fertile imagination fuggefted new grounds for accufation, on which they did not hefitate to pass fentence. The complaint against Dr. P. now was, that he had " obtained a patent under the authority of the United States, for the exclusive privilege of using and vending certain pointed Metallic Instruments, which is contrary to the rules and regulations of their fociety, interdicting their members the use of Nos-TRUMS!"-So extraordinary were the reasons given by these gentlemen, and so industrious were they

to

to find caufe for accufation, that this charge but too plainly exposed the motives which compelled it. The propriety of terming an invention a Noftrum, becaufe a patent, in conformity to laws which were formed for the purpose of promoting fcience and the useful arts, had been obtained, was too justly appreciated in the United States to fuffer this last charge to have the intended effect on the public mind.

As most of the literary characters in the United States at this time had been in poffeffion of the Tractors more than a year, they were fully prepared to report the refult of their numerous experiments; and many gentlemen, eminently diffinguished as physicians, philosophers, and divines, forwarded to the difcoverer their various experiments, with an intention that they fhould be published to the world. For the first time, in June last, Dr. P. publicly noticed the conduct of his oppofers, and this he did by giving their refolutions every poffible publicity, adding them in a pamphlet to fome of the numerous communications he had received from all parts of the United States, as further proofs of the reality and efficacy of his difcovery; their last vote being an indirect acknowledgment ledgment of the utility of the metallic influence *.

I have dwelt more particularly on the vote of fome of the members of the Connecticut Medical Convention, becaufe that, among the decifions of learned inftitutions, is the only inftance in which the efficacy of the *Tractors* has ever publicly been queftioned in the United States.

The novelty and fimplicity of the operation of the metallic influence, added to those prevailing prejudices against external applications in the treat-

• It is with no fmall regret that it falls to my lot to detail facts, which reflect a fligma on fome gentlemen of the medical profession in the United States. Although this disposition for differing is more general than I could wish to acknowledge, yet in the *present* inflance but a very small part of the above fociety was concerned in those extraordinary proceedings. Of more than *two hundred* members which compose the fociety, not more than *twenty* were present on that occafion; and the major part of these were perfons who had been engaged in a former controvers with the discoverer of the metallic Tractors, and have ever fince been his avowed enemics. Several members, in consequence of those votes, have fince abandoned the meetings. The fociety, collectively confidered, is an extensive and respectable inflitution, and many of its members are gentlemen of the highest merit.

ment

ment of difeafes, in confequence of the impofitions practifed in animal magnetifin, I am fenfible, will excite at first not only fcepticism but ridicule; yet I flatter myself neither of these will be found among the more learned or candid of philosophers.

We frequently hear men, whofe wildom is perhaps confined to their fignificant looks and manner of expression, observe, on a relation of any newly difcovered phenomena, that " Thefe things cannot be: I know of no principle, or poffible operation in nature, by which fuch effects can be produced." As if the great Creator of the Universe had made no laws relating to the œconomy of nature, which had not been communicated to them, and familiarized to their underftandings. I shall take the liberty to obferve, as a well-known fact, that mere hypothetical reafoning, unaccompanied by experiment, never accurately inveftigated the properties of any medicine, or predetermined its effects upon the human body. Were the whole LITERATI of the age prefented with an Acid and an Alcali, could they, by any speculation on the subject, fo far difcover their properties, as to infer that the union of them would produce in many cafes a difcharge of calorific matter, and compound a neutral falt? As well might we expect that the quarry fhould yield the

the polifhed ftatue without the labour of the artift, as that the human mind, by its reafoning powers alone, fhould be able to predicate on effects of this nature without the teft of experiment.

Convinced that the reader will agree with me that facts are better than argument, I shall proceed to the Experiments. No particular order is observed in the arrangement of the Cases, as it did not occur to me that it was necessary.

I would only further obferve, that the following experiments are not introduced folely with a view to establish the reputation of the Metallic Influence; but rather that I might complete the first defign of this publication, which was to give an historical sketch of the origin and progress of the difcovery. As these communications form a part of the incidents which eventually afcertained the importance and reality of Dr. P.'s difcovery, their immediate connection with the fubject of this Tract, rendered it neceffary to introduce them. I flatter myself I shall have the fatisfaction, on being favoured with fuitable fubjects, of affording evidence, which to every perfon must be more fatisfactory than any testimony, viz. the evidence of the senses.

As many of the following communications were of confiderable length, I have generally extracted from them only the facts which refulted from the experiments. The various fpeculations upon the theory, may with more propriety be referved for fome philofophical treatife on the fubject, fhould fuch an one hereafter be attempted.

Nothing need be faid of the refpectability of the characters who have given their experiments; as most of them are known in Europe as eminent philosophers, physicians, and authors, the reader must himself judge of the credit which ought to be given to their statements.

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EXPERIMENTS

AND

OBSERVATIONS

Communicated to the

DISCOVERER of the METALLIC TRACTORS.

EXPERIMENT I.

By Mr. MEIGS, Profeffor of Natural Philofophy at New Haven, &c. &c.

September 18, 1797.

"A^S I am daily confirmed in the opinion that facts form the most valuable part of our knowledge, I think it my duty to communicate the following:

" In March last my fon, about eight years of age, was seized with a complaint of the *peripneumonic* kind, attended with a violent pain in the left side, accompanied with a high sever and a severe cough.

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" By the care of Dr. Munfon he was in three or four days to far reftored, that on the fifth day he walked about the house. This probably exposed him to a relapse, for on the fixth day he was feized with a return of the fymptoms : his fever was higher, the pain of the left fide was greater, attended with a forenefs, which, whenever he coughed, forced him to cry out. He was obliged to lie on his back, being neither able to turn himfelf, or be turned. Dr. Munfon being again called, pronounced his cafe a hazardous one; after having prefcribed what he thought proper, fuggested a trial of your Tractors. This I immediately undertook, and in about half an hour he declared his pain was gone, turned himfelf without difficulty on his right fide, and fell into a profound fleep, accompanied by a remarkably profuse perspiration, which bursted from every pore. After a fleep of fix or feven hours, he awoke in perfect health, and has continued fo to this day.

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" It appeared to me, that the marks of the points on his fide were larger, more inflamed, and fwelled, than could have been expected from the mere mechanical irritation of the metals applied fo gently and lightly as in this cafe. This circumftance I mention, becaufe it may perhaps affilt in the formation of a theory on this fubject.

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" I have

"I have used the *Trastors* with fuccess in feveral other cases; and although, like Naaman the Affyrian, "I cannot tell why the waters of Jordan should be better than Abana and Pharpar, rivers of Damascus," yet since *experience* has proved them so, no reasoning can change the opinion.

"Indeed the caufes of all common facts are, we think, perfectly well known to us, and it is very probable that fifty or an hundred years hence, we fhall as well know why your *Tractors* fhould in a few minutes remove violent pains, as we now know why cantharides and opium produce oppofite effects; viz. we fhall know but very little about either, excepting facts. The world * will, notwithftanding, continue trying to oblige the prefent and future Galileo's folemnly to renounce opinions, which, in fubfequent periods, will be univerfally adopted. In fpite of Ecclefiaftical authority, the earth ftill revolves on its axis, &qc. &c."

* The reader will not require an explanation of the object of this remark, after what has before been flated relative to the refolutions of the Connecticut Medical Convention. Profession Meigs is an inhabitant of the fame State in which those proceedings took place.

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EXPERIMENTS H.

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Mr. WOODWARD,

Professor of Natural Philosophy at Dartmouth, &c. &c.

"I HAVE made use of your Tractors in various diforders, and besides universally abating, and generally removing pains in the *bead*, *face*, *teetb*, &cc. I have found them useful in the *Salt Rheum* *. Only one opportunity has presented for an effectual trial—that has cured the patient by three applications, which being known, feveral perfons affected with that diforder have been at my house this week to have the experiment performed on them; the diforders have abated on the first trial; and the prefent prospect is, that cures will be effected for them by further use of the *Tractors*.

" A violent pain in the foot, proceeding from a *fprain*, has been removed in a few minutes, fo as not to return."

* This is a cuticular difease very common in the United States, much resembling the itch, but not contagious, and is more local. It is probably a species of tetters or herpes.

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EXPERIMENT III.

Communicated by the

Rev. WILLIAM ROGERS, D.D.

Professor of Oratory in the University of Pennsylvania, &c. &c.

Philadelphia, June 1ft, 1797.

" MR. MARAT of Philadelphia, was fome time fince afflicted with a violent inflammation in his left eye, accompanied with a fevere pain, which extended through the head, and deprived him of reft. The eye was entirely closed, and conftantly difcharging water. Several things were applied to give him eafe, but to no purpofe. I told him, on opening it gently with my fingers, it was too bad to be relieved by the Tractors, as it was entirely of a bloody colour, and all the parts contiguous greatly fwelled and much inflamed; however, I would try their efficacy. I applied them a few minutes, and he began to open the eye. I continued using the Tractors for the fpace of ten or fifteen minutes, when the pain and inflammation were entirely removed, and he opened his eye without difficulty. He returned

to his family wholly relieved, had an appetite for his food, and next day went to his accuftomed labour. A few days after he had an inflammation in his right eye, attended with very confiderable pain. I again applied the *Traziors*, and he was almost instantly relieved. From that time to this he has been, as to his eyes, as well as ever he was in his life."

I have used the Tractors in some other inftances with success.

EXPERIMENTS IV.

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Doctors BAKER, HALL, LORD, and BREWSTER,

Reprefentatives of the County of Windham in the Connecticut Medical Convention, and Fellows of the Con. Med. Soc.

Windham County, Aug. 16, 1796. "FROM a variety of cafes which have occurred, not only in our own practice but in that of our neighbouring phyficians, we are *fully convinced* of the utility of the Metallie Tractors, in removing various *pains*, *fpafmodic*, and *inflammatory effections* from the human body; and that the difcovery is of importance to the healing art."

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EXPERIMENTS V.

JOHN VAUGHAN, M. D.-M. P. M. S.

Fellow of the Medical Society of Delaware.

" I HAVE operated, in a few cafes only, with your Tractors, for but few have offered fince I poffeffed them. One cafe of nervous or hyfteric head-ach perfectly cured.—A cafe of odontalgia relieved,—The third, a young man who had fallen nearly fifteen feet on the edge of an open ended hogfhead, and received a confiderable contusion in the umbilical region, with tumefaction,

" I bled him three times to little purpofe; but after about two minutes operation with the *Tractors*, he exclaimed in ecftafy, "I am well—I am well—my pain is gone!" The pain, however, returned in a lefs degree; but in thirty or forty minutes went off entirely, and he went to work as ufual."

EXPERIMENT VI.

Extract from the Report of

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FREDERIC DALCHO, M.D. Surgeon in the Army of the United States, to the Honourable JAMES MC HENRY, Secretary at War.

> Dated Fort Johnfon, South Carolina, 29 March, 1797.

"IN a former letter I mentioned the indifpofition of Captain Kaltaifen, the commanding officer of the garrifon; and as the application by which he has been relieved is worthy of notice, I have taken the liberty of reporting it to you.

"For about two years paft he has been much afflicted with a *fpafmodic affection* on the left fide of his head, and for feveral months it had become fo very frequent and violent as to affect his fenfes in a great degree.—All the variety of applications which have been made, afforded him not the fmalleft relief, and I doubted of his ever obtaining it at his advanced age *. A few

* Seventy-three years.

days

days fince he was fo violently attacked, that the intellectual functions were entirely deranged, and I apprehended very ferious confequences. In this fituation I purchafed a fet of Dr. Perkins's patent *Metallic Tractors*, the first application of which held out the pleafing prospect of his entire recovery. After repeating it for a few days, he became perfectly eafy and free from pain, and his mind reftored to its natural ftrength; no indifposition remaining but what is confequent on age."

EXPERIMENTS VII.

Dr. JAREB DYER, of Canterbury,

Member of the Connecticut Medical Society, and Surgeon to the 21st Regiment.

August 10th, 1796.

"For feven years paft I have been troubled with almost a constant *rheumatic pain* in my shoulder. For the two last years it has gradually increased increased till it became very diffressing, and has been attended with a stiffness to such a degree, that I could not raise my hand to the top of my head without great difficulty. In June last I applied your Tractors myself to my shoulder, when it was in extreme pain. The pain, to my great surprise, wholly less me within six minutes, and my shoulder was freed from its former stiffness. I could move that arm and shoulder with as great ease as the other. The pain has once returned in confequence of severe exercise, and it was immediately removed by applying the Tractors.

" I have also been frequently afflicted with a diffreffing pain in my head for twenty years paft. It has usually come on in the fore-part of the day, and continuing ten or twelve hours. About the time of the above operation on my shoulder, I applied the *Tractors* to my head when in fevere pain, which was in a few minutes relieved, and the pain has not fince returned. For three years before this application, I had not been three weeks at a time free from this complaint. From what I have experienced, and heard of the efficacy of the Metallic Influence, I doubt not but the discovery, will prove of great utility to mankind."

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EXPERIMENTS VIII.

DR. RUFUS JOHNSON,

of Canterbury,

Member of the Connecticut Medical Society.

August 11th, 1796.

" In the course of my practice a few months past, I have made frequent experiments with the *Metallic Tractors*, and have, with but very few exceptions, fucceeded to my furprise in removing rbeumatic pains, bead-acbs, pains in the face, *spasmodic affections*, and *inflammatory swellings* of the *tbroat*.

" The pains after being once eafed, have in fome inftances returned; and then, by a repetition of the applications, have been wholly removed.

"From my own practice, and what I know of the practice of others, I conceive this method of removing pains a very important and useful difcovery in the healing art; and I earneftly with that the Tractors may be generally dispersed, that mankind at large may have it in their power, by these innocent means, to ease themselves of many diseases which baffle the efforts of medicine."

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EXPERIMENTS IX.

DR. THOMAS BACKUS; of Plainfield,

Member of the Connecticut Medical Society.

August 9th, 1796.

" I was called, on the 4th ult. to attend a patient, by the name of James Crawfon, who, for about five years, has been frequently troubled with a fpecies of *epileptic fits*. When I first faw him he had experienced, in the courfe of the day, twelve, each of which held him about fifteen minutes. I took from him fourteen ounces of blood; but diffeovering no happy effect, I applied the *Trastors* to his right leg, in which he ufually experienced the first attack of his fits. The whole limb immediately became limber and free from spafin, and he foon revived without fuffering a general convulsion.

"About twenty minutes after, I being out of his room, was informed that the fymptoms of another fit appeared, and before I could operate on him he he was univerfally convulled, with an entire loss of reafon. I then drew the *Tractors* over his right leg again, fix or eight times, when the fpasms immediately ceased, and his reason was instantly reftored.

" In about half an hour he was feized with another, which was removed very much in the manner of the laft, the Inftruments not being applied until a general convultion had taken place. I then feated myfelf on his bed, that I might be enabled to apply the means more feafonably. Here I foon difcovered the fymptoms again, but by applying the Tractors immediately, the fymptoms difappeared. Several others, at intervals, commenced with their ufual fymptoms, fo contracting and cramping the right leg, that the utmost exertions of two men were unable to straighten it, each of which were in lefs than a minute removed by five or fix ftrokes of the Tractors, before the fpalm had extended to the other parts of his body: the leg almost instantaneously becoming perfectly lax.

" By the requeft of a number of gentlemen, who by this time had convened to behold this fingular phenomenon, when the fymptoms of a fit E appeared appeared I ceafed to use the Tractors, that we might determine, whether the above operations had prevented the general convultions, which before their application had always fucceeded the attack in his leg. Immediately he fell into a very fevere fit, which appeared in one univerfal fpafm. In this fituation I fuffered him to continue a few minutes, which was long enough for the experiment, when, by applying the Tractors to his leg again, in lefs than one minute he was entirely free from every kind of spafm, and instantly regained his reason. I still continued by his fide, and prevented feveral other general attacks, by operating at the beginning of the fymptoms.

"About one hour and an half after the first application of the *Tractors*, the fits entirely fublided. He became very easy, and experienced none of those disagreeable sensations, which he ever had after former attacks of this kind. He had usually been afflicted with these fits, except at a few intervals of twelve or fisteen minutes each, about twenty-four hours from the time they first commenced. It is therefore evident, that the influence of the *Tractors* not only shortened the fits, but leffened their number, as at this time they continued not more than nine or ten hours from their first commencement, commencement, and about an hour and an half after the first experiment. He has discovered none of that debility which has usually succeeded his former attacks, and continues to this day enjoying better health than usual."

EXPERIMENTS X.

SAMUEL H. P. LEE, M.D. of New London.

Member of the Connecticut Medical Society.

" THE following cafes, are among the number which I have to inform you, were treated folely by the practice of your *Metallic Tractors*.

CASE ift.

" A boy eight years of age, recovering from a bilious remitting fever, was attacked with a fevere phlegmonic inflammation in one of his legs. On the fixth day after its first appearance, when I was called in for advice, the whole leg was much tumefied; the tendons of the foot and leg contract-E 2 ed, ed, and the pain fo violent, that he could gain but very little fleep. I applied the *Tractors*, and in a few minutes he declared he was much eafier. After continuing the ufe of them for fome time he fell afleep, and did not awake or make any complaint until the next morning, when I vifited him, and found the whole tumour fubfided nearly to its natural flate. On repeating the fame experiments the tumefaction totally difappeared.

" It is not improper to remark that, during the five days before I faw it, the family had applied a few common poultices, vinegar, fpirits, &c. On the fixth day they declared the inflammation appeared to them greater than at any preceding period, and more painful. No other application, either external or internal, was ufed, but the *Tractors*, from that time.

CASE 2d.

" Mv little infant child was *fcalded* with hot tea on the forehead, about three and an half inches in length, and three fourths of an inch in breadth, which raifed a vehicle before I had time to apply any thing to it. The *Tractors* were folely ufed, and the whole rednefs difappeared. The blifter blifter broke, and the liquor under it formed itfelf into a feabby furface. The next day the wound was perfectly circumferibed to the part bliftered; and the whole caft off and left the fecond fkin perfectly entire, without the finalleft appearance of fuppuration or inflammation; and, what is extraordinary, it never appeared to give the child the finalleft pain, itching, or finarting, and in appearance was fo unlike a feald, that enquiries were made what it was that grew on the child's forehead.

CASE 3d.

"A lady fell from her horfe and *diflocated* her ancle, which remained feveral hours before it was reduced, by which it became very much *fwelled*, *inflamed*, and *painful*. Two or three applications of the *Tractors* relieved the 'pain, and in a day or two or fhe walked the houfe, and had no further complaint.

"I have used the *Tractors* in many other instances, wherein they appeared to have very falutary effects; but as the use of them was accompanied with other remedies, I forbear mentioning them in this place."

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EXPERIMENTS XI.

SAMUEL WILLARD, M.D. of Stafford,

Member of the Connecticut Medical Society.

"SINCE I returned to Stafford, I have made trial of your *Tractors* with very happy fuccefs, in a cafe of *rheumatifm*, which had for a long time baffled all the remedies to which I myfelf and two other phyficians had advifed.

"The wart * which I burned down when at your house, gave me no trouble, as to any fenfation

• Dr. Willard, like most others, when the metallic difcovery was first made public, was rather incredulous. Being however, from the various successful operations, of which he daily heard, very defirous of afcertaining the truth or fallacy of the doctrine by perfonal experience, like a genuine philos of the doctrine by perfonal experience, like a genuine philos of the doctrine by perfonal experience, like a genuine an experiment, which would put the facts to a proper test, although at the expense of some pain. Having a very large wart on his finger, he heated red hot a piece of iron, applied it to the wart, and held it there a confiderable time. As might be expected, the burn was very fevere, much inflamed, fation of heat, after you applied the *Tractors* to the inflamed part. I felt a forenels for feveral days after, but the forenels was no greater than would have arifen from the deftruction of fo much flesh from any other cause.

"I am convinced it argues great folly to condemn any innovations, or attempts at improvement in the arts and fciences, without *due investigation*. This is a kind of treatment, however, which your difcovery, as well as all others, have experienced, and while human nature is the fame, must expect *still* to experience,"

flamed, and painful. The *Tractors* were used, and the part in lefs than ten minutes was eased. As the wart was not yet burned entirely to its roots, the iron was again heated, and applied to the part longer than before; a most excruciating pain succeeded, extending to the elbow, with an inflammation which reddened the whole hand, and a large blifter was the confequence; the experiment was again made, and in about twenty minutes the redness totally disappeared, and the pain was entirely removed. Many have submitted to fimilar measures, in order to *experience* the effects. I once formed one of five, who burned ourfelves fo that blifters were raised to make the experiment; we all obtained relief in a short time.

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EXPERIMENTS XII.

ELIHU MARVIN, M.D. of Norwich,

Fellow of the Connecticut Medical Society.

"SINCE I have been in the use of your Tractors, which is about four months, I have, by way of experiment, made ufe of them in cafes of pains and inflammatory affections, of almost every kind, and on fubjects of all ages and defcriptions, and, as might be expected, with various fuccefs. Of one fact, however, I am fully convinced (in oppofition to former prejudices) viz. that in a variety of difeases, a proper application of them is capable of effecting a change in the human body; which I can no more doubt, becaufe I cannot affign a fatisfactory, philosophical reason for it, than I can doubt the operation of opium, because the properties of that gum, by which, and the modus operandi, in which it produces fleep, are to me wholly unknown. I am confident, reafoning a priori, would as foon establish one fact as the other. Cafes in which the Tractors in my practice have operated fuccefsfully, are, burns, beadaches,

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aches, pains in the face, or teeth, opthalmics, pains in the limbs, breast, and side, and cynanche tonsillaris; yet candour requires I should say, that success in these cases has not been universal.

" One cafe of cynanche tonfillaris, or common inflammatory quinsey, I will relate to you. I visited a young man, late in the afternoon, found him exercifed with all the usual symptoms of that difeafe; fuch as a general inflammatory diathefis; the tonfils fo tumefied, as to be nearly closed together; his throat and neck externally enlarged; a conftant difcharge by fpitting a glairy mucus, and complaining of exceffive pain in the part: thefe fymptoms had been increasing three or four days. His mother affured me, he had not swallowed any thing for thirty-fix hours, except three or four spoonfuls of water, in which toafted bread had been foaked. I could not learn that any means had been used for his relief, except keeping within doors, and making fome external application. I used the Tractors, and very foon the fpitting fenfibly decreafed. After fome time he observed the pain was wholly gone on one fide, and much leffened on the other. I then directed him to make trial how he could swallow; he took a tumbler of sweeteninne was bined, wholey responsed, and the ed-

appeared to be eachd of pain.

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ed water, and drank it off with little difficulty; and immediately eat about half a pint of cuftard. I then left him, with directions to apply the *Tractors* frequently, and in the intervals to keep the throat covered with fome emollient poultice. On vifiting him the next day, I found him fitting by the fire, roafting oyfters, and eating them without difficulty. He obferved, "he was well." I made every enquiry to difcover, whether the fwelling had not burft, but could not learn any thing which gave the leaft reafon to think it had. I left him a dofe of purgative pills, which he fwallowed without pain, and in a few days regained his ufual health."

EXPERIMENT XIII.

JAMES GOSS, M.D. of Gloucester, Massachusets.

" I THIS day faw your Tractors applied with fuccefs on a child of Mr. James Smith, fifteen months old, which had been, about an hour before the application, very feverely *fcald*ed by falling into boiling fat with one hand and arm, on which large blifters were raifed. After a few minutes operation, the rednefs and inflammation was almost wholly removed, and the child appeared to be cafed of pain."

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EXPERIMENTS XIV.

CONSTANT FREEMAN, Efq;

Chief Director and Governor of the Infirmary or Alms House of Boston.

" DR. PERKINS, by requeft, vifited the alms-houfe of this metropolis, and made experiments on feveral perfons with his celebrated *Metallic Tractors*. Among thefe was one John Patterfon, who had been in the alms-houfe fix months with the *chronic rheumatifm*; two months of which he was confined to his bed, during the other four months he had hobbled about with crutches, when Dr. Perkins performed the operation; fince which he has thrown afide his crutches, and walks only with a ftaff, which he ufes not for the rheumatifm, for he has none, but merely for a fupport, as his thigh-bone was then, and ftill remains, diflocated.

" Nancy Blake was also cured by the Doctor of the *rheumatism* in her back, which had constantly afflicted her for more than three years.

" Lewis

"Lewis Dumeth, a Frenchman, was also operated upon by the metallic influence for the *rbeumatifm* in his lower extremities, which had confined him to his bed and crutches for months; he immediately threw afide his crutches and walked about the house; has walked about the town fince, and had no return of the rheumatism in either leg."

EXPERIMENTS XV.

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Mr. NATHAN PIERCE,

Governor of the Alms House in Newbury Port, Massachusets.

" DR. PERKINS vifited the alms-houfe in this town yefterday, and performed experiments with his *Tractors* on three perfons who had been feverely afflicted with the *rheumatifm*; and, from the beft obfervations I have been able to make in fo fhort a time, they all appear to be much relieved of their complaints."

acted has for more than direc venis.

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EXPERIMENT XVI.

PIERPONT EDWARDS, Efq;

District Attorney in the Federal Court of the United States, for the State of Connecticut.

New Haven, Oct. 7, 1796.

"A MRS. BEERS, a neighbour of mine, had been for fourteen weeks diffreffed with the *rheumatifm* to fuch a degree, that fhe was fcarcely able to walk even with the affiftance of crutches.

" On the 29th of September laft, fhe procured a fet of your *Tractors*, and in lefs than an hour after fhe had begun to ufe them agreeably to your directions, fhe rofe from her chair, and walked about her houfe, and on the next day fhe went abroad to her neighbours, having thrown afide her crutches; her fever has fince left her, her appetite has returned, and fhe is in a fair way to be reftored to perfect health.

" It is a duty you owe yourfelf and the world, to promulge this event."

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EXPERIMENT XVII.

Communicated by

JAMES BURRILL, Efq;

Attorney General for the State of Rhode Island.

" My fon had for nine years been afflicted with the rheumatism to fuch a degree, that he could not walk without crutches, nor at many times drefs or undrefs himself. Dr. Perkins, by applying his Tractors, gave him immediate relief, fo that he walked with eafe, unaffifted by any fupport. For nine years preceding this period, the diforder was fo violent that he was almost constantly in pain, which at night was fo fevere as often to prevent fleep. Soon after the operation of the metallic influence, he was wholly freed from pain, and the fwelling of his joints fubfided. Since that time, when the fame fort of pains recurred, of which there have been but few inftances, they have always been eafily removed by the fame application.

" Jofeph Bradford."

" Mr.

" Mr. Bradford is a neighbour of mine, and I have knowledge of his fon's having been for a great number of years feverely afflicted with the rheumatifm to fuch a degree that he always appeard to walk with great difficulty; and that fince your metallic application, to which I was an eye-witnefs, he has walked with apparent eafe, and in every appearance is much amended. I have had knowledge of the fuccefs of your *Tractors* in many other inftances, and have the firmeft belief in their general efficacy."

EXPERIMENT XVIII.

CALVIN GODDARD, Efq;

Attorney at Law, and Member of the Legislature of the State of Connecticut.

September 25th, 1796.

"I HAVE lately been eye-witnefs to an experiment with your *Tractors*, which appeared to me a little fingular. A rough hardy labourer had a very bad *boil* upon the outfide of his ancle. The limb was much fwelled from his knee

knee to his toes, and appeared as if the ikin was ready to burft. The foot was in an high ftate of inflammation, and the pain, which extended to his hip, was fo fevere as to deprive him of fleep in the night preceding. I drew the inftruments repeatedly up and down the leg, without any visible effect or decrease of pain, until I was almost discouraged; at length, however, he pulled off his coat, and flung it alide, (it was one of those cold nights in the beginning of this month.) His leg was of a fudden wet with perfpiration; indeed the fweat burft inftantaneoufly from all its pores; the inflammation upon the foot fubfided, and the fwelling abated. The man declared himfelf free from pain, went to bed and flept well, and I have heard no further complaint. As I had never known of this fweating * effect, I thought the cafe worth reporting to you."

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* This is not at all unufual: a profuse perspiration on the diseased part, generally takes place on the removal of wielent pain by the Trastors.

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EXPERIMENT XIX.

GEORGE WARNER, Efq.

Member of the Legiflature of the State of New York, from the City of New York.

July 26th, 1797.

"I HAVE made frequent experiments with your Tractors, and fucceeded, to my furprize, in removing rbeumatic affections, pains in the bead, face, teeth, ears, fide, breast, and back. One remarkable cure in a case which was supposed to be a species of the nervous fever, I will relate.

"A lady who had been fick for near three months, and had given up all hope of relief from medical aid, fent for me.

"I found her very ill, and in fo feeble a flate, as not to be able to help herfelf. A violent pain in the head and eyes, that fhe could not bear the light; her jaws fo much contracted that fhe was unable to open her mouth; the root of her tongue fwelled to fuch a degree, that fhe fpoke F with with great difficulty; a number of fmall tumors appeared under the throat. I applied the *Trac*tors externally, in the ufual way, and in lefs than one hour fhe declared fhe was free from pain of every kind. She then could bear the light upon her eyes, and open her mouth. The fwelling under her throat foon difappeared, and fhe fpoke without any difficulty, to the great furprize of all prefent, and fat up in her bed with eafe. The fame day fhe fat at table, and eat her dinner, which fhe had not done for fome months before. The next day I called to fee her, and found her engaged in her domeftic concerns, free from all pains. She is now reftored to perfect health."

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EXPERIMENT XX.

JAMES GLOVER, Efq;

County of Tioga, State of New York.

"Your Tractors, which I lately purchafed to use in my family, I have applied, with great fuccess, upon a perfon *fcalded* with boiling lie. A man by the name of *Welcb*, who was at work in my pot-ashery, when boiling down the lie fome of it flew into one of his eyes, which foon became very much inflamed, and swelled to fuch a degree that he could not open it, and remained in that fituation for the space of three days. After the *Tractors* had been used a few minutes, he was able to open it, and with two applications only, his eye was entirely free from pain and inflammation, and in a short time was perfectly well, although so badly scalded that he had despaired of its ever recovering."

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EXPERIMENT XXI.

BENJAMIN SHREVE,

of Alexandria, VIRGINIA,

Of the Society of the Friends.

5th Month, 16th Day, 1797. "I HAVE been witnefs to an operation of thy Tractors on my fon, for the relief of epileptic fits, to which he has been fubject about eighteen months.

" On the 23d day of the fourth month, he wasfeized with one, with entire loss of reason. His hands were fo clenched together with fpafms, that the efforts of James Laurafon, whofe affiftance I called in, and my own, could not open them. In this fituation we applied thy Tractors to each arm, drawing them from the elbow down to his hand, and to our great furprize his hands foon became perfectly lax, and opened with cafe : by continuing the application on his head for a few minutes, he came to his reason, and went to fleep; fince which he has had no more figns of them. On all former attacks, they have continued fix or eight hours, and from twelve to twenty in number. 9

number. Bleeding and other means have been ufed, but he was never before relieved of them fo immediately. I am confident the *Tractors* effected the cure.

" Conceiving it the duty of every friend to human happines to encourage useful discoveries, I beg thou will publish this cure."

EXPERIMENT XXIII.

Rev. 'S A M U L L S P R I M G. D.D.

Of Hewbury Part, State of Madiac

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EXPERIMENT XXII.

Rev. JEDEDIAH MORSE, D.D. of Charleston, Massachusetts,

Fellow of the American Academy of Arts and Sciences, Member of the Historical Society of Massachusetts, Author of the "Universal Geography," and "American Gazetteer," &c. &c.

"I HAVE made a fuccefsful trial of your Metallic Tractors, in a number of cafes, fuch as burns, pains in the bead, teeth, face, ears, fide, back and limbs, arifing from cold. In one inftance, the painful effects of the *fting* of a wafp were entirely removed. In fome cafes I have been unfuccefs.

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ful,

ful, particularly in a burn, where oil* had been previously applied; and in the tooth-ach, where the teeth were very defective \dagger . On the whole, I think the discovery to be a very useful one, and wish it cordially all imaginable success."

EXPERIMENT XXIII.

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Rev. S A. M U E L S P R I N G, D. D. Of Newbury Port, State of Maffachufetts,

Author of " Religious Tracts, &c. &c.

February 24th, 1797.

"GIVE me leave to congratulate you in the view of the ample fuccefs with which your difcovery has been crowned. To afcertain its utility in any new cafe, will, to you no doubt, be particularly grateful. Let me then remark, that they have proved fuccefsful in removing the *rickets*. In my congregation at

* For the obffacles which oils prefent in removing pains by the operation of the metallic influence, fee page 20.

+ It may not be reafonably supposed that a radical cure could be made on teeth which were very defective.

Newbury

Newbury Port, there is a young gentleman, who, previous to the application of the *Tractors*, had not, for fixteen years, been able to bend his body fufficiently to reach the floor with his hand; but whofe pains, in a few minutes afterwards, were not only removed, but he was alfo able to reach the floor with facility. I have not the leaft doubt but many afflicted children, and young perfons, might in a flort time be relieved from the burden of fuch complaints*, by a feafonable and proper ufe of the *Metallic Tractors*.

" In confequence of your invaluable difcovery for removing many pains of the human body, I wifh you, dear Sir, the most ample fuccess, and the grateful notice and encouragement of your fellow-citizens."

I apprehend that relief will not often be obtained inthis difeafe, unlefs there is prefent a confiderable degree of pain, as was the cafe in the above experiment.

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EXPERIMENT XXIV.

Rev. SAMUEL STILLMAN, D.D.

Paftor of the first Baptist Church in Boston, Fellow of the University at PROVIDENCE, &c.

" I FEEL myfelf much obliged to you for the important fervice you have rendered to Mrs. Stillman's eyes, after a diftreffing *inflammation* of eight months. If through too much exercife, or being exposed to very cold air, a degree of inflammation returns, it is removed in a few minutes again by the application of your *Tractors*, I have, in my walks among the fick, made use of them repeatedly with fuccess, and cannot but think they will be of important benefit to mankind,"

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EXPERIMENT XXV.

Rev. SAMUEL HOPEPHS. D.D.

Rev. CHANDLER ROBBINS, D. D. Of Plymouth, Maffachufetts.

" Fax. twelve or jourgen

nick didar , which is to ship

"SEVERAL perfons, fince you left us, have experienced immediate relief, in various complaints, by the *Metallic Tractors*.

"I ufed them the day before yefterday on a man's hand, which was prodigioufly fwelled and painful, by a wound he received on its back, and which was much inflamed, by his neglect in expofing it to the cold. He was relieved by that fingle application; the fwelling fubfided, and the inflammation difappeared; fo that he went directly to work on board his veffel. During the laft night it gave him no pain."

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by the fame means, in this

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EXPERIMENT XXVI.

Communicated by the Rev. SAMUEL HOPKINS, D. D, Of Newport, Rhode Island, Author of "The System of Divinity," &c. &c.

August 17th, 1796.

"For twelve or fourteen years Captain William Ladd, of Newport, had been frequently afflicted with fevere paroxyfms of the gout. In the fall of 1795 he had a violent attack of this diforder, which had confined him to his room for five or fix days. At this time, when his foot was very much fwelled, inflamed, and in fuch extreme pain, efpecially his great toe, that he could not walk, nor fet his foot on the floor, I called upon him, and operated on his foot with the Metallic Tractors according to Dr. Perkins's directions. In a few minutes the pain and inflammation ceafed, fo that he walked with eafe. The fwelling within twentyfour hours fubfided, fo that he put on his fhoe; and this foot in two days became as well as the other. The pain has twice returned fince, but has been foon removed by the fame application. I have information of other perfons being cured of pain, by the same means, in this city."

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EXPERIMENT XXVII.

Rev. LEVI HART, Of Prefton,

Fellow of the University at New Haven, &c.

"I HAVE been a witnefs to the fuccefsful application of your Metallic Tractors, in removing rbeumatic pains and bead-acbs. In repeated inftances I have alfo feen excruciating pain, occafioned by contustion, removed in a few minutes by the fame application. From perfonal observation, and the information of others, I am fully fatisfied of the utility and importance of your discovery for the relief of human distrefs in various complaints."

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EXPERIMENT XXVIII.

Rev. THOMAS BARNARD, D. D. Of Salem, State of Maffachufetts.

December 6th, 1796.

"A LADY of between fixty and feventy years of age had one of her fingers contracted for feven years, which fhe was unable to open without the affiftance of the other hand. About the first of November last I applied your *Metallic Tractors*. The difficulty was removed, fo that she opened it as her other fingers. I have had direct information from her three weeks fince the operation, and her finger continued well. At the fame time I cured a *whitlow* on one of her thumbs with one trial, From what I have done, feen, and heard, I am fully fatisfied that the discovery is important to the healing art.

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EXPERIMENT XXIX.

Rev. ELHANAN WINCHESTER,

Author of feveral celebrated Publications in Favour of Univerfal Salvation; Anfwer to Paine's Age of Reafon; &c. &c.

Philadelphia, April 4th, 1796.

cains from

"ON the 25th of March 1796, I faw Dr. Perkins's experiment with his *Metallic Tractors* tried with fuccefs, upon feveral patients in the Alms or Bettering houfe in Philadelphia, efpecially upon a man who was unable to lift his right-hand to his head, as was tried before hand; but who, in a few minutes, was able to remove it at pleafure; and in my fight, put it with eafe on the top of his head and back of his neck, and in all directions.

" Nearly the fame effect took place upon a woman; and all on whom the experiments were made profeffed that their pains were removed; and feveral came voluntarily, and in my hearing thanked the Doctor for cures he had performed on them, about eight weeks before, in removing pains pains from them, which they declared had not fince returned. From what I faw with my own eyes, and what I heard, I have great hopes that this difcovery will greatly tend to alleviate the miferies of mankind."

EXPERIMENT XXX.

Rev. JOHN DEVOTION,

Of Saybrook, Connecticut.

Extracted from a Differtation, of confiderable length, on the Philosophy of the Operation of the *Metallic Influence*, addreffed to Dr. Perkins.

----- " My own infirmity gives occafion for philofophic inquiry. A moft terrible fever, or ague fore, in my youth, caufed an exfoliation of the fhin-bone five inches and three quarters long; after long phyficking and dreadful evacuations, which brought me to the fide of the grave, the fkin or flefh grew upon the bone without a periofteum. Whenever a fpeck of bone becomes carious, it fefters, and will not heal till the carious bone exfoliates: add to this, a piece of mal-practice of my furgeon, in applying a cauftic where the knife knife should have been used, which burned into my leg a place about an inch in width, and three fourths of an inch in depth. In my flate of convalescence this grew up; but the fall past, all that flefh which had grown in the place where the cauftic had been used was, from fome cause, again confumed, leaving at the bottom a canker, which conftringed the fibres, and produced continual inflammation and fevere pain. Such was my condition when you faw me. I applied the Tractors to my leg, and found eafe, but knew that the carious bone and canker would caufe a return of inflammation .- I have used them to the relief of a perfon labouring with an obstinate rheumatifm twelve months, feated in the knee. It has removed the pain, the foreness of flesh remained .- I have used them upon a fea captain, who, fcarce recovered from the West India fever, came upon this coaft, and was diftreffed twenty days; loft feven hands, and was afflicted with the gout in both his toes and left wrift. His feet and legs were fwelled to fuch a degree that I could fcarce make an impreffion upon them; and his wrift highly inflamed, and extremely hard : the first experiment removed the pain, fo that he walked about the room, and the night following refted well, and lay upon that arm and wrift, on which he had not been able to lie for twenty

twenty days. He, Sir, had no belief in the efficacy of your *Metallic Tractors*, but is now captivated with the relief they have afforded him.

" I used them upon three perfons, in one room, about ten minutes each .- When I fet out to return home I found my knee and elbow joints loofed. A universal relaxation and nausea. I immediately recollected it was the fenfation of an electric flock. This, Sir, with experiments upon my own leg, opens a fyftem of philosophic speculation. I foon found the electric fluid * paffing into my leg: I went home and applied the Tractors, and obtained relief; went to bed, and refted quietly; the next morning found my face puffing up on the left fide. I then reafoned thus -I have drawn the electric fluid of three perfons into my own body, which foon centered around the carious bone and canker in my leg. I operated with my own hand, and drew the electric

* How far the Rev. Mr. Devotion's ideas, as to the caufe of the extraordinary effect produced on him, will comport with what little is known of the laws of electricity, I fhall fubmit to the electrician to determine; but that as remarkable phenomena, in complaints not more fingular than that on his leg, I can obferve have feveral times taken place, after an application of the TRACTORS, although I have never known any permanent injury fuftained.

fluid

fluid from my leg, and have fcattered it through my whole frame. Whereupon I called a lad of my family, and made him operate upon my other leg, which drew down the puff on my face in a few minutes. I thence found, if I ufed the *Tractors* upon other perfons with my own hand, I fhould draw the electric fluid into my infirm leg. Thefe experiments offer fome data to reafon from.

[Here follows a very ingenious differtation on the cause of the above phenomena; which the limits of this work will not permit me to introduce.]

"Now, Sir, as the *Metallic Tractors* act upon an eftablished law of nature, there is no fear they will want power so long as the electric rod will draw electric fire. All the unbelief and buffoonery of the envious will not hinder their effects. I think there is a foundation laid for great improvement in the medical art by the inquisitive physiologist.

" P. S. I have tried the Tractors in finall burns in my own family, and find they-give immediate relief. An inflammation in the eyes was relieved much by once operating: the patient came again, G and and had it effectually removed laft Saturday. As I do not practife phyfic, and have been confined much by my own infirmities (which by the way are gradually gaining, efpecially the cankered wound) I have not had fo full an opportunity of knowing the effects upon fome who have only once been operated upon; one in an eryfipela of twenty years ftanding at a diftance from me, &c.

"Such cafes as may yet be found relieved by them, fhall be noticed with critical obfervation, that it may be known in what cafes they generally fucceed. We are always liable to errors in *a priori* argumentations. *Experientia docet*: here we have fure ground to ftand upon; fome who have imagined the operation of the Metallic Influence to be a kind of magic charm, have brought difcredit upon it, by ufing the *Trattors* where they ought not to have been ufed. I was glad to find particular cafes fpecified, in which they had been fuccefsful: fuch experiments may poffibly lead to the difcovery of fome other laws of nature, yet enveloped in obfcurity."

END OF THE EXPERIMENTS.

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ADDITIONAL REMARKS, &c.

I CAN forefee that the fpeculative phyfiologift is now ready to afk from the difcoverer of the Metallic Influence his *Theory*, and to enquire *how* all thefe effects, ftated in the Experiments, are produced?

To this I must reply, that his theory is not yet published. It is a favourite maxim with Dr. P. that the judicious phyfician at first leaves the flowery path of fpeculation, for the more arduous one of experiment, and builds his theory, fo far as is possible, on the folid basis of facts. Thefe facts he establishes by the concurring teftimony of his fenfes, accompanied with fuch critical and candid observations, as alone are competent to detect a fallacy, or fupport the truth .--The great object with Dr. Perkins was, first to ascertain the truth relative to the usefulness as well as the existence of the discovery. To accomplish this, it was not abfolutely neceffary to underftand minutely the theory, but rather to obferve critically the effects. It is by thefe that the existence

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of a caufe is afcertained, and by thefe alfo its utility muft be demonstrated. The phenomena are often learned from observation long before we can arrive at the theory which connects and explains them.

From the imprefions this reflection produced in his mind, the Difcoverer has hitherto foreborn publishing his ideas relative to the causes of the phenomena produced by the metallic influence.

Having, however, by this period afcertained, from almost innumerable experiments, fo many important facts relative to the discovery, he intends publishing his theory as soon as he shall have leisure to give the subject the attention which it merits. Possibly his system, like most others, may be objectionable. The many incomprehensible properties of the principle * on which the metallic influence is generally supposed to act, prefent

* The indefatigable refearches of the celebrated M. Von HUMBOLDT, of Germany, will, I anticipate, throw much light on this interesting subject. His first volume (an 8vo. of 500 pages, and which is to be followed by another) is thus spoken of in the Appendix to the twenty-fourth volume present a *terra incognita*, which none but the most fortunate and experienced adventurer can explore; yet Dr. P. will have the fatisfaction to reflect, that while the facts abide, an erroneous theory will not

volume of the Monthly Review: "No work on Animal Electricity, or as it is now more generally termed, on Galvanifm, has excited fo much expectation on the continent as this of M. Von Humboldt.—" I have been employed," (fays the author) "for a number of years, in comparing "certain phenomena of animal matter with the laws of "inanimate nature; and I have fucceeded in fome ex-"periments, which feem to lead towards the develope-"ment of the chemical procefs of life. A feparated animal organ, provided with irritable and fenfible fibres, can in "a few feconds be raifed from the flate of the moft pro-"found inirritability, to the higheft fufceptibility of flimuli, "and again be reduced to its firft condition of torpor."

" Treating of excitation by different metals, the author fhews that they need not be in contact.

" I have feen (fays he) galvanifed fifhes, which had been decapitated half an hour before, make fuch firokes with the tail that the whole trunk has rifen fix inches above the table. When I exalted their fufceptibility by alkali, or by oxygenated marine acid, they could fearcely be managed. The fmalleft touch of the metal made them jump."

" After having related his obfervations on the application of metals to the tongue, noftril, and eye, the author defcribes the appearances and fenfations which took place on galva-

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not lessen the usefulness or importance of the difcovery.

We certainly ought not to reject a practice which produces falutary effects, becaufe we do not know *how* it produces them. We do not lay afide the various ufes of the magnet, as the furveyor's and mariner's compafs, becaufe we cannot affign the reafon why the needle is directed towards the poles. Nor do we defift from ufing mercury in the fyphilis, or bark in an intermittent, yet I believe none of the faculty can explain *how* they produce their fpecific effects.

wifing two fpots on his back where the fkin had been exposed by bliftering. The pain is peculiar, and very different from that which is occasioned by the electric *aura*. Here a violent throbbing, regular preffure, and continued burning took place. "The preffure was fo violent (fays he) that I "thought I had been flruck with the clinched fift, when all "the by-flanders affured me I was only touched in the "gentleft manner by the edges of the metal."

"Some facts are related, which feem to indicate that galwanifm will prove an effective application to recover perfons apparently dead. Thefe and other refults lead us to hope that the practice of medicine will, ere long, be effentially benefitted by the refearches of M. Von Humboldt, and his fellow labourers." It must be acknowledged, that to be able to comprehend whatever our reason is bent on investigating, is a fource of no small degree of fatisfaction; yet were we to disbelieve the existence of every thing, which we are unable to comprehend, we must reject three fourths of the daily occurrences of life.

Several have been the attempts made to explain the phenomena of the metallic operation in the United States. Among others, the ingenious Dr. Vaughan read before the Medical Society of Delaware, a Differtation on the Subject of Animal Electricity, or the newly difcovered influence of Galvani; and on that principle he attempted to account for the effect of the Tractors, Having fince enlarged on the fubject, he has complied with the requeft of the fociety, and publifhed it. As this Treatife is not yet re-publifhed in this country, fome extracts from it will probably be acceptable, and with thefe I fhall conclude this Tract.

Prefatory to the work, is the following letter from a gentleman of great medical reputation, to the author.

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Letter

Letter from JAMÉS TILTON, M. D. Prefident of the Medical Society of the State of Delaware, &c. to JOHN VAUGHAN, M. D. M. P. M. S. Fellow of the fame Society.

" Dear Sir,

"I AM very glad you have at length overcome the reftraints of diffidence, by giving us your thoughts on electricity, in explanation of Dr. Perkins's metallic operation.

"That fome general principle exifts, which gives the Tractors a powerful influence on the animal ceconomy, is now acknowledged by philofophers, the moft candid and beft qualified to judge. Even Mefmer, in his application of the metals, was patronifed by the ableft phyficians of Germany, until he covered and obfcured thofe fimple facts, which fhould have been improved for the benefit of fociety, with empirical frauds, that had no object beyond the accumulation of money. Inftead of involving Dr. Perkins in the difgrace of Mefmer, I apprehend we ought rather to contraft the *boneft man* with the *rogue*; for without art or affectation Dr. Perkins barely difclofes ufeful facts, by means the moft fimple and eafy.

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" It must be confessed, however, that many reject our general principle: like infidels to the gospel, they admit of no mysteries, and refuse to believe what they do not comprehend. Others, who acknowledge that a general principle pervades the animal œconomy, on which the metals have influence, nevertheless dispute about what this notable power may be. Both these classes of men ought to thank you. To the one you have given a reason they did not apprehend; and the other should wish for the best account known, or well understood. For my own part, I frankly confess I shall be satisfied with the principle of ANIMAL ELECTRICITY, until the phenomena are better explained by means of some other.

"By publishing to the world the thoughts which you have digefted and arranged on animal electricity, and the manner in which it explains the metallic operations, you will at least invite discuffion, and may profit, with the rest of your brethren, by the event.

With great refpect I am, dear Sir, your friend and humble fervant, JAMES TILTON." Wilmington,

Wilmington, July 20th, 1797.

OBSERVATIONS

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ON

ANIMAL ELECTRICITY.

"Nothing has been fo great an obflacle to the advancement of medical fcience, as the partiality and obfequious regard which the generality of phyficians of all ages have paid to great authorities; for whilft they diffegard the teftimony of their fenfes, and indolently affent to things on the credit of others, they remain paffive dupes to their own credulity, and feldom examine whether they are right or wrong. An error thus admitted is reluctantly corrected, and becomes the copious fource from which numberlefs falfe opinions flow.

" There are perhaps but few that are not diffident in deviating from principles eftablished by men of general erudition, whose geniuses were qualified to interrogate nature with fuccess. But an error once discovered should be immediately corrected, in opposition to the *ipfe dixit* of all the dogmatists

dogmatifts of seventeen centuries. Yet there are few difcoveries in the healing art, but what meet with tumultuous opposition from the congregated legions of prejudice, ignorance, and ambition. Some nominal philosophers difbelieve every propolition that does not accord with the doctrines of their anceftors; and others are fo extremely illiberal as to difcard every new principle in which they can have no claim to INTEREST. A glaring example of the latter we have in the degrading denunciations of the European philosophers, when the illustrious Dr. Franklin's difcovery of the identity of lightning and electricity was first delivered to the world. A fecond, no lefs true, we have in the difcovery of Dr. Perkins's Metallic Influence, which will, like the former, arife triumphant amidst the counter, but futile vociferation of prejudice and ignorance. Some reject the latter because they were not the discoverers. Others queftion the testimony of their fenses, because they cannot explain the modus operandi, by referring it to the old doctrines of Van Helmont, Doleus, or Stahl. Yet the happy day is perhaps not far diftant, when envy must fall a facrifice to TRUTH, and behold this problem accounted for on a native law of the animal ceconomy.

" That

"That the bodies of animals poffeffed a fluid analogous to electricity, had long been fuspected by physiologists, and other speculative philosophers. [Here follows an account of the origin of GALVANI's discovery, and the subsequent improvements by VALLI, FOWLER, Sc. with a citation of most of the important experiments, together with his own theory of muscular irritability and the nervous energy; which, in consequence of their length, are neceffarily omitted.] He proceeds:

" I have frequently taken out the hearts of frogs, turtles, &c. and obferved attentively their actions. They will contract and dilate sua Sponte for fome time, and then ceafe, when they may be again excited to contract by lacerating them with a wooden or other pointed inftrument. But when they become no longer excitable by thefe means, they may be re-excited to contract by the irritation of a metallic inftrument. I once obferved a fimilar phenomenon in an amputated limb. One of the crural muscles contracted upon being irritated with the point of a fcalpel. The experiment was then tried with a pointed wooden instrument, but to no effect; yet on irritating it a fecond time with the fcalpel, it contracted

tracted once or twice. Hence the application of metals is one of the beft and moft delicate tefts for afcertaining the leaft poffible degree of mufcular irritability. After having been wholly infenfible to the imprefiions of all other *ftimuli*, they may be re-excited, on the application of their native ftimulus.

" Although we cannot with precision fay why hominal electricity should be fusceptible of metals only, yet the fact is incontestable, and fanctioned by the experiments of those gentlemen afore-mentioned, whofe veracity is unquestionable. It is also further substantiated by the difcovery of Dr. Perkins's Metallic Tractors for removing pains and topical affections. The . Doctor observed to me that he had made trial of all the various metals, but none are fo effectual as those of which his Tractors are composed. This difcovery is as important in the healing art, as it is novel in the fcience of phyfiology, and all that remains, to illustrate its efficacy, is a rational and philosophical demonstration of the principle itfelf, and an explanation of the modus operandi on the established laws of the animal æconomy. This, however, is confidered problematical by fome, and by others it is politively difcarded. difcarded. Yet to ceafe from enquiry becaufe we are fometimes miftaken, is no greater proof of wifdom than to defift from walking becaufe we fometimes flumble.

" And if we only take an impartial view of the operations of nature herfelf, and attend diligently to the analytical inveftigations of the afore-mentioned experimentalists on this fublime fubject, I think the fceptic himfelf must admit, that the principle of nervous energy, is a modification of electricity. As fenfation is dependent upon this energy, a pleafurable fenfation, on what may be termed a natural or healthy degree thereof; then certainly pain, or fuperfenfation, can only depend on an accumulation of the electroid fluid, or extra degree of energy in the part affected. On this principle the problem admits of an eafy folution; namely, that the metals being fusceptible of this fluid, conduct the extra degree of energy to parts where it is diminifhed, or out of the fyftem altogether, reftoring the native law of electric equilibrium.

" The particular affections in which this operation is the most effectual are, chronic rheumatisms, as lumbago, sciatica, &c.odontalgia, otalgia cephalalgia,

lalgia, phlegmons, cynanchies, opthalmias, pleuritic pains, fpafmodic cholics, burns and fcalds, paronychiæ, contusions, atonic gout, spontaneous hemorrhages, herpes, eryfipelas, &c. with many other topical affections which might be enumerated if neceffary. The Tractors should be carried to fome distance from the part affected, along the course of the larger nerves; and in obftinate and fixed pains of long ftanding, the operation should be continued until a flight inflammation is excited; but in eryfipelas, and other fuperficial inflammations, the operation fhould be very light on the inflamed part, and principally confined to the edges of the tumour. In removing pains from the head, the hair fhould be perfectly free from pomatum, or other adipofe fubftances; and all parts on which the TRACTORS are used should be free from sweat, oils, &c. In pleurifies, cholics, &c. a diaphorefis not unfrequently fucceeds their operation, and fometimes faintness is produced, by the fudden abstraction of nervous energy. In a cafe of cephalalgia, if the pain is confined to the fore part of the head, it is immaterial whether the hair is pomatumed or not. A few days fince I awoke with a most rending head-ach, unaccompanied with fever; I delayed the operation some hours, on account of

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my hair being pomatumed, but the pain became fo infupportable (and the ufual applications failing) that I refolved to make trial of the *Tractors*, as the pain was for the moft part in my forehead. After the operation had been continued a few minutes on my forehead, and the back of my neck, I was perfectly relieved from pain, and have remained fo ever fince.

" It is argued by fome (who are oppofed to the Metallic Operation) that the efficacy of the Tractors depends merely on a counter irritation produced by friction. I would afk those dogmatifts how metallic friction cures burns or topical inflammations? Does not the least impression on an inflamed part produce pain, and would not friction augment the evil? Phlegmons, and fome other topical inflammations, may often be removed by exciting a counter irritation with blifters, &c. which reftore the equilibrium of the nervous fluid. But blifters feldom anfwer any valuable purpofe in local inflammations, accompanied with exceffive action of the arterial fystem, until the fever is previously diminished. Neither will the metallic process fucceed fo well in the acute as in the chronic rheumatifm, while the febrile action remains inordinate. ×

dinate. This fliews a correspondence in effect, but the modes of operation are diametrically oppofite. The former is by an indirect organic procefs; the latter by a direct and specific operation; and all pretensions towards identity are precluded by the diversity of their effects on burns and phlegmons as before mentioned. Phlegmons, and other topical affections, are owing to an internal or external irritation on the nerves of a particular part, by means of which the veffels of the part are also brought into action, and not unfrequently the whole vafcular fystem acts in concert, from a sympathetic harmony primævally effablished.

" Spontaneous Hemorrhages are those which depends on a local excess of tone or electricity, denominated (by the illustrious Cullen) a Hemorrhagic effort.

" Herpes are the product of a morbid or exceffive excitement in the veffels of the cutis; the incruftation is formed by exceffive action. The metals remove this inordinate action by abstracting the extra degree of electricity; corrosive lotions destroy the morbid action by corrosion, and H induce induce or reftore the condition for healthy action.

" Burns.—The flimulus of heat produces inflammation, by exciting and accumulating the electric fluid.

and philepropages before

" *Epilepfy* is owing to an irregular diffribution of the nervous fluid, and an accumulation thereof in the mufcles affected with fpafm. That this is the fact, is obvious from the preternatural ftrength of epileptics.

" Pain is merely an accumulation of electricity, in a particular part; and the fubfequent flate of eafe is obtained by abstracting the extra degree of fensibility. Hence the frequent faintings in parturition, cholics, &c. are to be imputed to a diminution of nervous energy. In chronic pains, connected with idiofyncrafy, or dependant on habit, fo that the organism of the part is injured, or a mal-conformation induced by nature or accident, the metallic process cannot be expected to fucceed.

"When suppuration has taken place, the Tractors must be confidered as mere palliatives. 8 They They fhould never be used on the back, during the existence of the catamenia. Besides those cases in which they have already been found successful, future experience will probably develope many others, in which they will prove equally efficacious.

" The Tractors will alfo, in all probability, fucceed better in the hands of fome perfons than others. For example :- Many people are remarkable for an extreme luftre in their eyes; fome are fo much electrified naturally as to fhew evident figns of it when a fenfible electrometer has been applied to them; and others have manifefted an extreme fenfibility of even the fmalleft degree of electricity, infomuch that they would be affected by a flash of lightning, though fo remote that the thunder could not be heard. All this evinces that electricity, fo far from being noxious, bears a very active and falutary part in the animal œconomy, which will probably lead to more important refearches on this interefting fubject, and incite future travellers to explore the remaining terra incognita."

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