



PRACTICAL ELUCIDATION
OF
THE NATURE OF HERNIA,
TOGETHER WITH SOME REMARKS ON THE
Unfit Instruments
HITHERTO USED FOR ITS CONFINEMENT.

WITH AN EXPLANATION OF

The experienced utility and effectual cures,
OF THE
INSTRUMENT NOW RECOMMENDED.

BY A. G. HULL, M. D.

INVENTOR AND PATENTEE,

PERMANENT MEMBER OF THE STATE MEDICAL SOCIETY, AND LATE
PRESIDENT OF THE ONEIDA MEDICAL SOCIETY.

*He maketh sore and he bindeth up; he woundeth, and his
hands maketh whole.—Job.*

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PREFACE.

THE author of these few practical observations, during twenty-five years' practice in surgery, having witnessed the dreadful consequences incident to ruptures, the indescribable agony attending them, and the loss of many valuable lives, of both sexes, almost uniformly the result of bad and ineffectual Trusses, or neglecting to use any--was prompted by feelings of humanity, professional duty and pride, to devote a share of his time and attention (during the last seven years) to the disease of hernia, and the construction of an instrument for the different species of that disease, and without arrogating to himself superior powers, or intelligence, he is now satisfied that he has brought into successful operation an improved Truss, happily adapted to all cases of ruptures, of both sexes. By his own experience, and that of many others, he does not hesitate to announce to the world the efficient powers combined in his contrivance. The benefits already derived to thousands by the use of this instrument, has given the inventor gratification better felt than can be expressed. The use of this instrument is no longer a subject of doubt or experiment; for the excellency of any useful innovation is always known by its effects. The author feels satisfied in having given to the world an important alleviator, as well as a proba-

ble cure, of a disability or disease, which hitherto the pride of professional science has unwittingly too much neglected : and he feels a conscious pleasure that he has not derogated from scientific surgery by making use of mechanical skill. Hereafter surgeons may do more in various other diseases or casualties : with regard to rupture, it is believed, that now all is done that can be even desirable ; that which has never been contemplated—a complete cure.

Every benevolent heart will sympathize and rejoice with the author and inventor for a surgical improvement now known and acknowledged as an efficient remedy on the plan of prevention and the only cure of a dangerous and distressing disease, one so common and so little attended to by scientific men that misery instead of comfort has been the result, from want of skill and ingenuity in adapting an instrument. One is now offered and fearlessly declared to be the desideratum of ages and the proved cures of hundreds.

Whatever effect ignorance or prejudice may have upon the minds of individuals, the enlightened part of the profession will acknowledge, as an important acquisition to the healing art, an improvement which has already received the sanction and patronage of many of our most distinguished citizens : and whatever should hereafter be the fate of the improvement, it will ever be to the author a source of conscious pleasure, that it has already relieved much of the distress of his fellow-men, and no doubt preserved to their friends and the community many valuable lives.

TRUSSES.

Among the various causes of human misery, few are productive of so much distress as the disease of Hernia. So long baffled in their attempts to cure the complaint, surgeons appear to have abandoned it to mechanics, and to have confined their research to the best mode of reduction and operation, without thinking it possible to obviate, almost entirely, the necessity of so difficult, dangerous and painful a resource. For the purpose of confining the viscera within the parietes of the abdomen, many differently constructed instruments have been invented, but all without any reference to the anatomy, or physiology of the parts concerned; and it has been a subject of serious regret that they have hitherto proved not only ineffectual, but, in their application to the body, distressingly inconvenient. If we investigate the cause of these difficulties, we shall find them to have resulted necessarily from the method usually employed to fix the pad in a given position, and from the form of this part of the instrument. It must be obvious to every individual, who is in the least acquainted with the mechanical operations of the human body, that any mode of fixture by an encircling belt, must be entirely inefficient; since it must be sufficiently tight to overcome the contractions of the muscles, and impede the motions of the body, or be liable to vary its pressure, and be flung from its position by their alternate contraction and relaxation. Not only

the circular belt, but other straps or fastenings are required to retain them upon the rupture opening. These always excoriate and inflame the parts to which they are applied, and with all their complication are inadequate to secure the protuding intestine.

These remarks are particularly applicable to the Truss recommended by Dorsey and Cooper, nor are they the only objections which may with propriety be urged against it. The cushion being immoveable, except with the motions of the spring to which it is attached, is liable to be flung from the aperture in different positions of the body, particularly by those motions which call into action the muscles upon the outer part of the pelvis. The viscera are thus suffered to escape, and are liable to be caught and bruised between the pad and the resisting parts of the body. This has been acknowledged by surgeons of experience, to be a very frequent cause of the most obstinate strangulation. To these objections, however, the ingenious instrument of Salmon, Ody, & Co. are an exception; and from the honourable mention they have lately received, are deserving of particular attention. In their mode of application they are similar to those we have presented to the public, and by some have been thought to be not essentially different: but a little attention to their construction, with a knowledge of their effects derived from experience, will be sufficient to convince any rational mind, that notwithstanding they retain their position with a uniform pressure, they still exhibit a train of objections which ought for ever to prohibit their application. The pad of this truss, it will be recollected, is connected to the spring by a ball and socket joint, which is almost unlimited in the extent of its motion. This renders the pad which is oval and convex in its figure, liable, in particular

motions of the body and aided by the force of the protruding intestines, not only to be rolled on its axis like a wheel, thereby losing its intended position, but to be rolled upon its edge. The gut is thus not only suffered to escape, but the integuments are bruised and injured by its frequent occurrence. This is not mere supposition of what may happen, but is what does actually take place; and we have seen a most irritable excrescence produced by the edge of the pad, thus bruising the integuments, keeping them constantly inflamed, the patient in torture, and subjected to the danger of strangulation. There is another difficulty which this instrument possesses in common with all others hitherto used, which, if possible, is still worse than that already described: I allude to the convexity of the pad, which resembles the bowl of a spoon, and is mechanically designed, though erroneously, to press into the rupture opening; thus constantly dilating the aperture, and increasing the difficulty it was intended to remedy. The convexity of the pad of this truss is greater than most others in use, and is on that account proportionably objectionable. When this Truss has been applied, and great pressure was required, we have seen the ring dilated almost to the full size of the pad. It will be further observed, that a greater pressure is necessary to secure a rupture with this form of pad than with one which is flat or concave: for the intestine always searching for an opening, meeting with this convex surface, is reflected from the centre, and when it can find the least aperture between the pad and the walls of the abdomen, will operate upon the principle of the wedge to roll the pad upon its edge. With all these objections apparent, it is somewhat singular, that a learned annotator in this country (though not a native) should have given the preference to this instrument.

We are unwilling to think it was through any predilection for the inventions of his own countrymen,

but suppose it to have originated from an entire want of reflection upon its pernicious tendency, and of experience in the proper mode of its application. This we are the more inclined to believe, as he does not appear to be aware of the evil consequences resulting from a convex surface applied to the ruptured part, and from the circumstance of the awkward manner in which these trusses are usually applied.* This instrument, invented by Salmon Ody & Co., is, we humbly conceive, intended to extend from the centre of the spine, round one hip, to the rupture opening upon the opposite side, and not, as most persons suppose to apply upon the nearest ring, with the spring playing loosely upon the hip, or turned up over the spine of the ilium, and "resting upon the soft muscles of the abdomen." A truss applied in this manner is not only extremely awkward, but useless: awkward, because the form of the spring would be rendered more visible through the dress, and very troublesome in certain positions of the body: useless, because, without embracing the swell of the abdomen it would be constantly slipping from its position. The double Truss of Salmon Ody & Co. is applied in a different manner from their single. It consists of two springs attached to a single pad which rests upon the centre of the spine. The rupture pad of each spring applies to the nearest abdominal ring. To retain them in this position, it is found necessary to connect the two pads by means of a strap passing from one to the other. This prevents their receding from each other, which any person can perceive would evidently be their ten-

* It is proper to notice that this gentleman having since the first edition of this work, obtained a knowledge of the true merits of this instrument has most ingenuously acknowledged his conviction of its superior advantages.

dency, from the slope of the parts upon which the pads are placed. The same would be the tendency of the single Truss, if applied in the manner usually recommended.

I cannot here omit to mention the restless efforts of mechanics, who, while totally ignorant of the object to be attained, are torturing their inventions to comprehend ingenious principles of mechanical action; resulting in a troop of automaton, obtruded upon the community from month to month and from year to year. With a view to obviate all preceding difficulties and to render the rupture pad less liable to slide from its position, Mr. Charles Reade of this city, some 10 or 15 years since, affixed the spiral spring very ingeniously between the pad and belt, for which he procured a patent. Since which, Mr. John Beath of Boston made some improvement on Mr. Reade's spiral spring,* and in fact spiral springs variously modified, have been used from the days of Benjamin Bell to the present time; and, in the opinion of the author, arrived to their maximum in the hands of Mr. Reade. But spiral springs fixed to rupture plates, must, if they are allowed any action at all, inevitably tilt them upon their edges, than which nothing can be farther from answering the above intentions; for the equal centre pressure looked for in them, is uniformly defeated by their constant liability to be thrown from it by the slightest impulse made

* A most flagitious attempt has quite lately been made to revive the spiral spring as used by Mr. Beath, by a mechanic of Norwich, in this state, calling himself Bela Farr. Now it seems that this Mr. Farr has added Reade's spiral spring, precisely on the plan of Mr. Beath, to my entire truss; thinking, no doubt, by this subterfuge to cover a silly misbegotten claim to originality! in which he has so far succeeded as to obtain a patent. The venal nature of this transaction will be readily seen by reference to Thatcher's Modern Practice, page 661.

upon one side : a fact well known and confirmed by the complaint of ruptured persons who have worn them, as might naturally be expected in certain attitudes of the body and motions of the muscles. All which complicated mechanism, vague in intention and effect, hazardous and distressing in its progressive use, may now be dismissed for one based on experimental pathology, simple yet appropriate in construction—and at once palliative and curative in its progress ; an instrument possessing the utmost perfection of mechanical principles for the treatment of hernia—and at this time of day predicated on the unprejudiced, authentic and highly successful experiment of medical men and thousands of sufferers, both scientific and illiterate.

It is a matter of the deepest regret, that circumstances of so much consequence to an unfortunate class of our fellow-men should have been so little attended to in the construction and application of the preventive means for the different species of *Herniæ* : and that Trusses, combining so few of the principles which lead to the prevention of this calamity, and many of them evidently calculated to increase the difficulty and danger of the patient, should have obtained such general use, and been recommended in so many works of merit, which but tends to propagate error, and to perpetuate that obstinacy of prejudice for which the faculty are already but too justly distinguished.

It was witnessing the above enumerated defects of all Trusses, and the dreadful effects attendant upon rupture, which first led us to reflect upon the nature of the complaint, and to search for some more efficient means to mitigate the distress, and preserve the lives of our fellow-men. As a compensation for our research, is the gratification that we have thus far been enabled not only to secure every instance

of reducible hernia, but to restore to perfect health a great proportion even of very aged sufferers. In the almost innumerable cases of children when this instrument has been applied, not a single instance has occurred, (within our knowledge,) which has not been cured in less than eighteen months, and few have exceeded six.

In opposition to the opinion of all surgeons, it is found by experience, that there is no necessity for continuing the application of the Truss during the night.* On the contrary, we have thought a cure was hastened by the rest which the muscles obtained while the patient is in a recumbent posture. In this position there is little chance for the descent of the bowel, and even if such an occurrence take place, there is no more foundation for the assertion of Mr. Cooper, "that all hope of a radical cure is destroyed in a moment," than there was formerly for the opinion, that the least motion of a fractured limb would destroy the whole progress it had made in uniting.

The qualities we have united in the Truss, are equally applicable to every species of Hernia, and we can say, without the fear of contradiction, that the proportion of cures it has effected is altogether unparalleled. It may, perhaps, be an interesting inquiry to some, how this instrument produces its effects; and we think, after considering its construction, this question can be answered to the satisfaction of every rational mind. It will be observed, that this Truss presents a concave surface to the rupture opening. The concavity of the plate is occupied by an elastic cushion, the resistance of which

* For the safety and convenience of those who may fancy it necessary to wear any thing in the night, the author has invented a Nocturnal Truss, so modified as to maintain the same principle.

is sufficient to reduce the protruding intestine while it is prevented escaping to any considerable distance by the pressure of the metallic plate. Which pressure being greatest at the circumference and diminishing toward the centre tends constantly to approximate the hernial parietes and afford them rest and mechanical support. It is therefore obvious that nothing is suffered to intervene between the lips of the opening, as is the case when the intestine protrudes, or a convex pad is applied, but a fair opportunity is presented for the fibres to recover their tone, or to heal; when any laceration has been produced by violence done to the parts. It is a law of the animal economy, particularly noticed by Dorsey, that all hollow parts of the body, have a tendency to adapt themselves to their contents.

For the cure of Hernia then, it is only necessary to remove every obstacle which counteracts this tendency. This indication is certainly very far from being answered by the convex pad, and we think it can only be fulfilled by one which shall reduce the bowel without dilating the ring; with this view, we have applied the concave pad, which has more than answered our expectations, in preventing a decent of the gut, and in restoring the fibres, which it undoubtedly greatly facilitates by its constant and uniform pressure. But without investigating the *modus operandi*, it is sufficient for the patient, and for all practical purposes, for the physician to know, that with this instrument Hernia may always be secured. If applied in cases of umbilical, or congenital Hernia in children, it will in every instance, remove the necessity of an operation. In cases of congenital Hernia, it should be applied before adhesion takes place, but not until the testicle has made its decent. If this particular period should be more carefully observed by surgeons, and the application of the Truss, (in-

stead of being abandoned to mechanics) receive a greater share of their attention, they might be instrumental in obviating much of the distress which has been entailed upon the world.

It is a fact well known to the profession in the County of Oneida, and has been a subject of congratulation in their Medical Society, where the Truss was invented and first brought into use, that from the year 1800 to '1819 from three to five persons were annually the subjects of operations from strangulated Hernia: and that from the year 1819 to 1822, not a single case had occurred within the knowledge of any individual member of the society. This surprising alteration was attributed, solely, to the general use of the instrument now under consideration.

With all these facts before the public, we are sorry to observe, that many of the faculty are still determined to be sceptical, and to persevere in giving the preference to the convex pad. It is a knowledge of this fact, and we trust, a just sense of the duty we owe to the public, which has induced us to make so many observations in recommending our own improvements. We are not unconscious that the malicious may attribute it to a less worthy motive; but as we have thus far, (in introducing what we consider a valuable instrument,) had the mortification to encounter the sneers of our brethren, and the independence to disregard them, we shall not probably at this late period, shrink from the task assigned us, *“ through fear to cope malicious censure.”*

A. G. HULL.

MODE OF APPLICATION.

After having stated the manner in which we conceive this Truss produces its effects, and the authority in testimony of its superior utility, we deem it important to make a few remarks, particularly regarding its application. This is the more indispensable, since surgeons, who alone are sufficiently acquainted with the different species of the disease, the anatomy of the parts, and the proper adaptation of the Truss, have abandoned their charge to apothecaries, and men entirely ignorant of the complaint. We also find that the most ingenious surgeons, misguided by the instruments formerly in use, and forgetting the important principle, that the pressure should be made perpendicular to the rupture, have very frequently applied them upon the wrong side of the patient. In this manner the spring projects some inches beyond the body, (unless it is much smaller than it should be when properly applied) making a very unseemly appearance, and by flinging the pressure upon the edge of the pad, destroys the principle of the instrument. For the purpose of rendering these instruments less liable to be wrongly applied, these remarks are accompanied with a plate representing them as adapted to the different species of Hernia.

H—represents the umbilical truss ;

A—the situation of the rupture pad in umbilical Hernia, resting with its centre directly over the rup-

ture opening. The spring of the pad passes close to the side, as represented by the plate.

D—represents the situation of the back pad upon the centre of the spine in corpulent persons, but a little beyond on spare or emaciated.*

I—is a representation of the Double Truss, when upon the body the principal part of the pressure is made upon the end pad, C; that should, therefore, be applied to the worst rupture. The degree of pressure upon the second pad, B, is regulated by a cork wedge, which is made to slide between the main spring, and small spring, to which the second pad is attached. The application of this Truss is represented by the letters K B C. The back pad resting upon the sacrum, as shown by the letter E. The rupture pads should apply immediately over the rupture opening, the lower edge just touching the edge of the pubis. The spring should pass in a horizontal line, and be neither so large as to be inconvenient, or so small as to press upon any part of the body. The force of the spring should be sufficient to keep the gut always reduced. The greater pressure the patient can bear, the more perfect is his security, and the greater the prospect of radical cure.

G—represents the single Ing. Truss; it differs in no respect from the double, without the addition of the second pad. If the rupture be in the right groin, this Truss comes on from the left side, as represented by K. And the same Truss reversed for a rupture in the left groin.

Fig. F—represents the instrument as applied in femoral Hernia. The curve in the spring at F, is

* Except in cases where the greatest pressure is required, the counter pad should be made to rest on the muscular cushion on each side of the spine.

for the purpose of dropping the rupture pad lower in the groin, while the back pad retains the position E. In these cases it will be generally found necessary to turn up a little the upper and lower edge of the pad to prevent its chafing the integuments of the abdomen and thigh.

If proper attention is paid, it will be difficult to mistake the application of this instrument. The one first applied may not be the best adapted, but the opportunity afforded of trying the several degrees of pressure will at least secure the rupture, if it does not go to the extent of cure.

PERSPECTIVE VIEW OF THE TRUSS.

The great desideratum in all improvements of mechanical instruments, is to make a paramount combination of simplicity of structure and facility of effect.

The Patentee respectfully invites the attention of all persons versed in the surgical anatomy of the parts concerned, to the following brief exposition of the distinctive merits of this Truss.

Firstly.—The concave internal surface of the rupture pad; from its pressure being greatest at the circumference, tends constantly to approximate the hernial parietes, affording them rest and mechanical support.

Secondly.—The combined hinge and pivot mode of connection between the *spring* and *pad*, by means of a tenon and mortice so constructed as to preserve a double hinge and limited joint, acting in every direction; thereby securing the uniform pressure of the spring on the pad, and sustaining the same nice

coaptation of the pad and rupture opening, as well under the varied ordinary desultory muscular actions, as when the body is in a recumbent posture.

Thirdly.—The graduating power and fixture of the pad to the spring, rendering, as will be readily perceived, the position of the pad perfectly controllable, even to nameless minuteness. Also resulting from this mechanism, is the advantage of accommodating a large truss to a small person: hence the *facility of supplying without disappointment, persons at a great distance.*

Fourthly.—The Double Inguinal Truss; being simply the addition of another pad, attached to a short elastic metallic plate; this plate with its pad move on the main spring by the same power of adjustment and fixture as the first pad, the pressure of the pads being graduated at pleasure by an intervening cork wedge.

Thus, dismissing all the complicated mechanism of straps, belts and spiral springs hitherto used, and but too often ineffectually used, is this distressing class of hernia managed with the same ease and certainty of success as the single rupture!

In the investigation of the virtues of this instrument, it is with the utmost assurance that we advert to several years successful experiment, the only true basis for assertion:—

And hence the Patentee hesitates not to affirm, that, in combining its qualities, such advantage has been taken of mechanical principles, as to leave neither necessity nor possibility of improvement.

Late accounts from professional men, as well as my numerous agents, together with my own experience, warrant the highly interesting and auspicious conclusion, *that the complete cures which are effected on persons from 40 to 75 years of age—may with safety be computed at an average of 1 in 3—AND UNIVERSALLY ON CHILDREN!* An account of some of the most striking instances of cure on aged persons is annexed.

The Patentee is truly gratified that the success of his Truss has given them an introduction to the navy and army of the United States. The approval and recommendation to general use by the Medical Societies of the State of New-York, and by many of the most respectable Medical Institutions, as well as medical practitioners in this and most other states, should be sufficient.

As further evidence of the superior merits and growing utility of the patentee's Truss, in addition to former certificates, he takes pleasure in presenting to the public the following late testimony.

Extract from the Minutes of the Medical Society of the City and County of New-York, May 10, 1824.

FELIX PASCALIS, M. D. from the committee, (consisting of VALENTINE MOTT, M. D. JAMES R. MANLEY, M. D. JOHN C. CHEESEMAN, M. D. and J. KEARNEY RODGERS, M. D.) to whom was referred Doctor A. G. HULL's communication and Trusses, reported favorably of the same, and a copy of said report was ordered to be furnished to Dr. Hull on application.

COPY OF REPORT.

The Committee to whom was referred the communication of Dr. Hull, respectfully report.

That they have examined with a considerable degree of attention various models of the Truss of Dr. Hull submitted to their inspection, and give it as their opinion that this new kind has the following advantages over all other Trusses known to your committee, viz : It has a *hinge* motion in place of the simple pivot motion which obtains, in all the most approved of the kinds. The shape of the pad itself being rather concave than convex, presents advantages that must be obvious to the attentive surgeon, inasmuch as its pressure is made upon the side of the ring rather than upon the centre of the Hernial Tumour itself, but perfectly safe ; and in case of double Hernia requiring double pad in one Truss, the fixture of a wedge spring in order to graduate the pressure of the nearer pad has hitherto been considered a great desideratum in all kinds of Trusses, and gives to this a manifest advantage over all others that have been or continue to be in use. All which is respectfully submitted.

(Signed)

FELIX PASCALIS, Chairman.

New-York, May 7, 1824.

Extract of a letter from Dr. Caleb Samson, enclosing the certificate of the members of Oneida Medical Society, and other well known gentlemen, whose names have been given in recommendation of the Instrument.

New-Hartford, March 24th, 1821.

Dr. A. G. HULL—Dear Sir—Having known several complete cures effected by your *Hinge Truss*, I cannot conscientiously omit any endeavours to extend its use. It unites, to a degree hitherto unknown, the useful qualities required in an instrument of this kind.

The enclosed certificates of the members of the Medical Society of this county, does not derive its value from its number, but from the worth of the signers; to which I add with great pleasure, the concurrent opinion of many of our most distinguished citizens, and am with sentiments of esteem and respect, your obedient,

CALEB SAMSON, M. D.

Certificate of the members of Oneida Medical Society.

We, the undersigned, members of the *Medical Society of the County of Oneida*, sensible of the indefatigable exertions of our President, Dr. A. G. Hull, in inventing and bringing into use his valuable Truss: and repeated instances having come within our knowledge, of its effecting radical cures on very aged people, who had been ruptured the greater part of their lives, render it, in our opinion, superior to any other introduced in Europe or America. We most sincerely congratulate the public on an improvement so well calculated to relieve the distressed, and to save the lives of many valuable citizens.

ARBA BLAIR, *V. Pres't.*

LAURENS HULL, *Del.*

SETH S. PECK, *Secretary.*

SETH HASTINGS, *Jun. Tr.*

ELNATHAN JUDD,

CHARLES BABCOCK,

EZRA WILLIAMS,

} *Censors.*

JOSIAH NOYES, *Prof. of
Chem. Ham. Coll.*

SEWALL HOPKINS,

MARCUS HITCHCOCK,

SETH CAPRON,

CALEB SAMSON.

Certificate from the Hon. Ezekiel Bacon, Hon. Morris S. Millen, Hon. Nathan Williams, Hon. Thomas R. Gold, Hon. W. Kirkpatrick, and the Rev. S. C. Aikin.

We are happy to join with the above gentlemen of the faculty, in congratulating the public on an invention so beneficial to the community as Dr. Hull's Truss—are gratified to state, that we are acquainted with the fact, that a number of aged and respectable

citizens of our vicinity, from the use of this instrument have experienced radical cures; and that the unfortunate class of people labouring under the distressing disease of rupture, are presented with flattering prospects of relief and cure, from the use of the same.

EZEKIEL BACON,
MORRIS S. MILLER,
W. KIRKPATRICK,

THOMAS R. GOLD,
NATHAN WILLIAMS,
S. C. AIKIN.

The following is from the undersigned Professors of the College of Physicians and Surgeons of the Western District, Fairfield, New-York.

This certifies, that we have examined the Patent self-adjusting Hinge Truss, invented by Doctor Hull, and have no hesitation in stating, that in our opinion it is far superior to any now in use. A simple mode of application, a constant, easy, and an effectual pressure on a given point, without liability to be displaced, or to impede the free motions of the body, are qualities which it unites. These are qualities not to be found in the ordinary kinds, and which entitle his invention to the entire approbation of physicians, and to the notice of the public.

*College of Physicians and Surgeons of the
Western District Dec. 1818.*

JAMES HADLEY, *Prof. Chem. &c.*
WESTEL WILLOUGHBY, *Prof. Obstets.*

Extract from the published transactions of the New-York State Medical Society—SESSION 1823.

“The Committee report, that from an examination of Dr. A. G. Hull’s Truss, that they have no hesitation in stating, that from the entire new principles on which it acts, with the effective qualities which it unites, it is far superior to any other in use, and, in their opinion, is entitled to the entire approbation of Physicians, and the encouragement of the public.”

*An extract of a letter from Samuel L. Mitchell, M. D. LL. D.
F. R. S.*

Dr. Hull :

New-York, April, 7th, 1823.

Dear Sir—Since you have brought me an introductory note from one of the first gentlemen, a good friend, from Oneida county, I sought opportunities of hearing your discourses upon rupture, and the mode of moderating and removing it by the mechanism of your invention. I have been on several occasions highly gratified

by the manner in which you presented and explained the disease and the mode, not only of making patients comfortable, but sound and well, by your remedial apparatus. From the combination of physiological science and mechanical skill displayed in its construction and use, I am satisfied it ranks among the very valuable aids to lessen human misery.

SAMUEL L. MITCHELL.

Extract of a certificate from Valentine Mott, M. D. Professor of Surgery, University of New-York.

I have paid considerable attention to the construction of Trusses, and it gives me pleasure to state, that the Truss invented by Dr. A. G. Hull, possesses in my opinion advantages over every other instrument of the kind with which I am acquainted, experience has confirmed me in the utility of this instrument which is indeed the only true test of its merits. Dr. Hull is entitled to the thanks of the public for having directed his attention to the construction of this instrument; possessing professional knowledge united with mechanical ingenuity would alone entitle his invention to the notice and regard of his surgical brethren.

Extract of a certificate from Nathan Smith, M. D. C. S. M. S. London, Professor of the theory and practice of Physic, Surgery, and Obstetrics, Yale College.

This may certify, that I have examined Dr. A. G. Hull's self adjusting Patent Hinge Truss, and have applied it in several cases of Hernia. From my knowledge of the principle on which it acts, and from its effects, I do not hesitate to give it a decided preference to any thing of the kind I have ever seen.

NATHAN SMITH.

Copy of a Letter from Samuel R. Marshall, Hospital Surgeon, United States Navy, New-York, to F. Le Baron, Esq. Apothecary General, United States Army.

Dear Sir—This will be handed you by DR. HULL, the inventor of a Truss which promises to be extremely useful in every species of Hernia. It is, in my opinion, so far superior to all the Trusses hitherto used, that I have determined to make use of them in all the United States ships, which may be fitted out at this port. As a production of American ingenuity, it is entitled to a fair trial; and I am persuaded you will take pleasure in affording it that justice, by employing it in the army. With great respect and esteem, I am, Dear Sir, truly your obedient servant,

SAMUEL R. MARSHALL.

New-York, June 24, 1819.

Joseph Lovell, Surgeon General of the U. S. Army

Since the above, Joseph Lovell, Esq. Surgeon General of the United States, has, in his public capacity, sanctioned these Trusses, and given to them his professional recommendation.

A letter from Doct. John F. Gray. Dated University of the State of New-York, Feb. 25th, 1825.

A. G. Hull, M. D.

SIR, allow me to acknowledge myself highly gratified and much enlightened by your discourse on medical science generally and hernia particularly.

In seeking these opportunities during a few months stay in New-York, my attention has been by you directed to the surgical anatomy of the different hernial channels, as well when deranged, as when *in situ naturalis*. And to the tendency of this texture to resume its healthy function, on being relieved from overdistention on being mechanically supported.

Collateral with the conviction of these facts, is the truly grateful impression, that your Truss is preeminently (and I hesitate not to say, perfectly) well calculated to answer these intentions.

I am happy to inform you that professor Mott of the University of New-York, developed these points in a characteristic manner, at once simple and profound; and concluded his public course on hernial, after carefully canvassing the merits of others, by *unequivocally recommending your Truss as the only safe resort in reducible hernia*.

To a mind formed like your's, ever assiduous in abbreviating the sum of human suffering, it must be no mean solace to see this important acquisition to surgery—addressing itself to the investigation of men of high rank and attainments, and I hail it as an era in preventive surgery, an era—which must elicit the gratitude of generations yet unborn. With such sentiments permit me Dear Sir to tender my most grateful acknowledgements.

Amos G. Hull, M. D.

Dear Sir—Since our interview at my house, I have the satisfaction to inform you that I have been cured of a rupture of 15 years continuance by the use of your Truss. I found on the first trial that it was more effectual in retaining the bowel than any instrument I have ever used. I soon found that a favorable change had taken place and I supposed myself cured. About this time I was reduced very low with Typhus fever, as I began to recover I again found appearance of the rupture. I applied the Truss again and in a few weeks found myself cured. I continued the instrument about one year when I left it off and for the last three years

have been quite free from the complaint. I am respectfully your
Friend and Servt.

SAMUEL B. WOODWARD, M. D

Wethersfield, (Conn.) June 1, 1824.

Extract of a certificate from Dr. Samuel Osborn.

Since I have become acquainted with the Truss of Dr. Hull, I have not known a case of rupture but could be satisfactorily secured by that instrument, and with a reasonable prospect of a complete cure. I have never seen any other form of pad adequate to those intentions, nor have I ever before or since the introduction of Dr. Hull's form of pad, and hinge joint, graduating motion at will, heard of or seen a suggestion of a similar thing, except such as have been made in imitation of his, with variations to evade his right or claims; and those variations such as to impair the usefulness of the instrument. New-York, April 29, 1824.

SAM. OSBORN, M. D.

Certificate of Dr. Hunter.

It is with peculiar pleasure that I can say that my experience in the use of Trusses for many years in Europe, and for the last five years in America, has made me acquainted with the superior advantages of Dr. Hull's Patent Truss over all others that I have heard of or seen. A striking instance of a radical cure under my own inspection, was effected by the use of Dr. Hull's instrument, on two cases of bad scrotal hernia in less than one year, after a long and ineffectual use of the Racket Truss approved by the celebrated Dr. Lawrence, and the Ball and Socket Truss of Salmon, Ody, & Co. London. New-York, October 27, 1824.

WM. HUNTER, M. D.

Dr. A. G. Hull,

Dear Sir—My partner, Dr. Nash, has been ruptured from his infancy up, and found no effectual means of relief till he applied your Truss, and says it has been one of the greatest comforts of his life, and to all appearance has effected a cure.

DAVID HULL, *Fairfield Conn.*

Copy of a letter from Mason F. Cogswell, M. D. to the Patentee.

Doctor Hull,

HARTFORD, July 23, 1819.

Sir—It is with real satisfaction I comply with your request, in giving my opinion of your improved Trusses. The simplicity of their construction, the facility with which they may be applied, and their perfect adaptation to all the variety of cases which may

occur, render them far superior to any thing of the kind I have ever seen. I have witnessed their efficacy in a variety of instances, and do not hesitate to recommend them, in the strongest terms, to the public use and patronage.

MASON F. COGSWELL.

We hereby certify, That having attentively examined the improved Trusses of Doctor A. G. Hull, feel fully warranted in recommending them as greatly superior to any others now in use within our knowledge.

ALEX. COVENTRY, M. D.
JOHN McCALL. M. D.

Utica, April 6, 1822.

Extract of a letter from Dr. C. Stockman.

New-York, May 1, 1824.

I do hereby certify, that for six years I have witnessed the surprising and admirable effects of Dr. Hull's Patent Truss. Many unfortunate sufferers have been rendered by that instrument not only easy and secure from strangulated Hernia, but have obtained a complete and happy cure. The qualities which the Doctor has happily combined in his instrument, I believe to be his original invention, affording an appropriate adaptation to the anatomy of the parts, on true surgical principles. Its beautiful simplicity bears the stamp of genius, and, in my opinion, cannot be altered to advantage. I confidently believe that it has never before been adopted, and only by him brought into successful operation.

CHRISTIAN STOCKMAN.

Certificate of Dr. B. Coe, President of the Oswego Medical Society.

As a practitioner of physic and surgery, I have made a thorough trial of Dr. Hull's patent Trusses, and am convinced, from the number of permanent cures of ruptures effected by them under my own inspection, that they justly claim a decided superiority over any thing of the kind hitherto invented.

The following certificate relative to the Patentees Truss, is from the Honourable, the Vice President of the United States.

Dr. Hull

Has been highly beneficial to me and in truth, saved my life by his advice and remedy.

DANIEL D. TOMKINS.

Extract of a letter from Wm. Thornton Esq.

Much gratification is expressed by the Patentee in being able to state from so respectable a source as the Patent Officer of the United States, (Dr. Wm. Thornton,) extensively known as an able artist and a competent judge of mechanical and machinic improvements generally, and particularly qualified as a scientific Surgeon, to appreciate improvements for Surgical use, that with some trivial alterations in the mechanism of my Trusses, (which has already been embraced in my latest improvements) "*They are the best Trusses that ever were made by man.*"

Extract of a letter from Dr. S. S. Peck, of Whitesboro'

DR. HULL.—Sir.—In addition to the numerous and distinguished cures of rupture, effected by the use of your Truss, I state you a case that came under my care.—April 20th, 1818.—Visited Mr. Edmond Wells, afflicted with a Strangulated Hernia, attended with most alarming symptoms. Immediately after his relief, I directed him to you for a Truss. After using it about 18 months, he declared himself entirely cured; much to the surprize and satisfaction of himself and friends:—particularly as he was an infirm man, at the advanced age of 73, had laboured under his complaint many years; and used a variety of other Trusses without relief.

SETH S. PECK.

Whitesboro', March 31, 1820.

Oswego July 26th, 1823.

Doctor A. G. Hull.

Dear Sir—Permit me to inform you that I have been completely cured of a very bad rupture by the use of your Patent Hinge Truss; after the use of it one year I was to all appearance perfectly cured. It is now more than a year since I have discontinued the use of it and I find myself perfectly cured of the disease. The firm and easy adaptation to the ruptured part and the probability of its effecting a perfect cure when timely applied, renders your instrument in my opinion one of the greatest importance to the public.

Your Obedient Servant,

MATTHEW McNAIR.

Hartford August 6th 1824.

Doct. A. G. Hull.

Sir—Being desirous of making further known to those afflicted with Hernia, the salutary effects produced by the *Patent Hinge Truss* of your invention, I would observe, that after having for many years used a Truss constructed on the most approved *old* principle, which produced no other good effect than merely sustain

ing the bowel, and being then more than eighty years of age I applied one of yours, after wearing which about six months I found myself perfectly cured, and I have the best reason to believe, it was effected by means of your instrument. I am of the opinion that your Truss cannot be improved on in principle, as to its utility in effecting cures, or in comfort to the wearer

I am Sir yours,

ISAAC BULL.

Oswego, August 28th, 1823.

Doct. A. G. Hull.

Dear Sir—I have been for twenty years past much troubled, with two bad ruptures one in each groin. Eighteen months since I was advised to procure one of your Trusses. I procured one of your double hinge Trusses, which in the course of 15 months completely cured one of my ruptures and relieved the other very much. Indeed I have but little doubt but it would cure that also (which was a very bad one) if I should live a few years longer, I am now seventy eight years of age. I believe that from the perfect adaptation to the ruptured part the ease with which it is worn, and the probability, and I may say almost certainty of its finally effecting a perfect cure, renders your invention one of the greatest importance to your fellow creatures. In fact I think a better instrument of the kind could not be invented.

I remain your friend and humble servt.

ELI PARSONS.

We the undersigned, after having nearly abandoned all hopes of obtaining any means of relief for the dreadful disease of rupture, with which we have long been afflicted, have recently experienced in the use of Dr. Hull's truly useful improvement, that ease comfort, and ability to labour, which by long experience in the use of other Trusses, we are confident cannot otherwise be found; and we esteem it as a circumstance of no trifling consideration, that such an invaluable instrument can be obtained. With grateful feelings we sincerely congratulate Dr. Hull on the ready adoption of his Truss, so highly and justly recommended by some of the most respectable medical institutions, and skilful surgeons of our country. We doubt not that every feeling heart will unite with us, and be highly gratified to have it in their power to encourage and extend the use of an improvement so admirably calculated to lessen the miseries and remove the dangers of this dreadful disease. JOHN MILES, *New-Haven*, JOEL HALL, *Wallingford*, ISAAC GILBERT, *do.* NATHAN CHITTENDEN, *Guilford*

A few of the most striking instances of cure are presented, as follows.

Isaac Bull, Hartford, aged 82 years ; cured in less than one year. Aug. 6, 1824.

Thomas Hath, Carpenter, New-York, cured in about 8 months. July 1824.

Col. Eli Parsons, Oswego, cured in 15 months—aged 78 years. August 21, 1824.

Eli Bristol, Oneida, aged 65, cured in 2 years, after having been ruptured 30 years.

Deacon Benjamin Maltby, Connecticut, aged 65, cured in six months.

Dr. Nash, Fairfield, (Conn.) aged 40, ruptured from his infancy up, cured in 12 months.

T. Smith, Deerfield, aged 78, cured in less than 2 years.

William M. Cheever, Whitesborough, aged 40, cured in ten months.

Edward Wells, Oneida, aged 65, cured in less than 2 years.

Joseph House, Westminster, (U. C.) aged 45, cured in less than one year, after being ruptured 25 years.

Alady in Sangerfield, (N. Y.) cured of an alarming Femoral rupture in less than 1 year. Communicated by Dr. S. A. Meacham.

An aged woman of Utica, cured of a large navel rupture in less than 12 months.

Hon. Matthew McNair, Oswego, aged more than 40, cured in 1 year. "It is now more than one year since I discontinued the use of it." July 26, 1824.

John Tilman, Utica, aged 65, cured in less than 10 months.

H. L'Homedieu, of Catskill, perfectly cured in less than 10 months, aged 72.

Several aged persons, of this City, who have experienced great utility and perfect cures. Reference to them may be had at this office. Also several aged persons of Brooklyn and its vicinity (L. I.) who have experienced effectual relief and complete cures ; communicated by Drs. Ball, Wendel and Smith, Brooklyn, and Dr. Van Deveer, Flatbush.

DR. HULL particularly invites the attention of females, to an Umbilical Truss, which he has recently invented and adapted to ruptures, at, or about the navel. Females and children being more commonly subject to navel ruptures, and therefore to them of great importance and comfort ; being worn with perfect ease and effect, and without the aid of straps and bandages, so distressingly inconvenient in those formerly used.

The almost universal neglect of parents in regard to children afflicted with rupture is really melancholy, as the unfortunate child

in growing up to manhood, is liable to linger out a painful existence, or be hastened to an untimely grave. But parents may now learn that by a timely use of Dr. Hull's Truss, a perfect cure may be expected in all cases of ruptured children, from the earliest period to the age of fifteen years, and most generally in less than ten months.

AMOS G HULL.

N. B. The above described articles are to be obtained at most of the Druggist's stores in this City and in the United States. The dealers, or those who wish to become dealers in the above, are informed, that they can at all times be supplied in any quantity, at the office of the Patentee.