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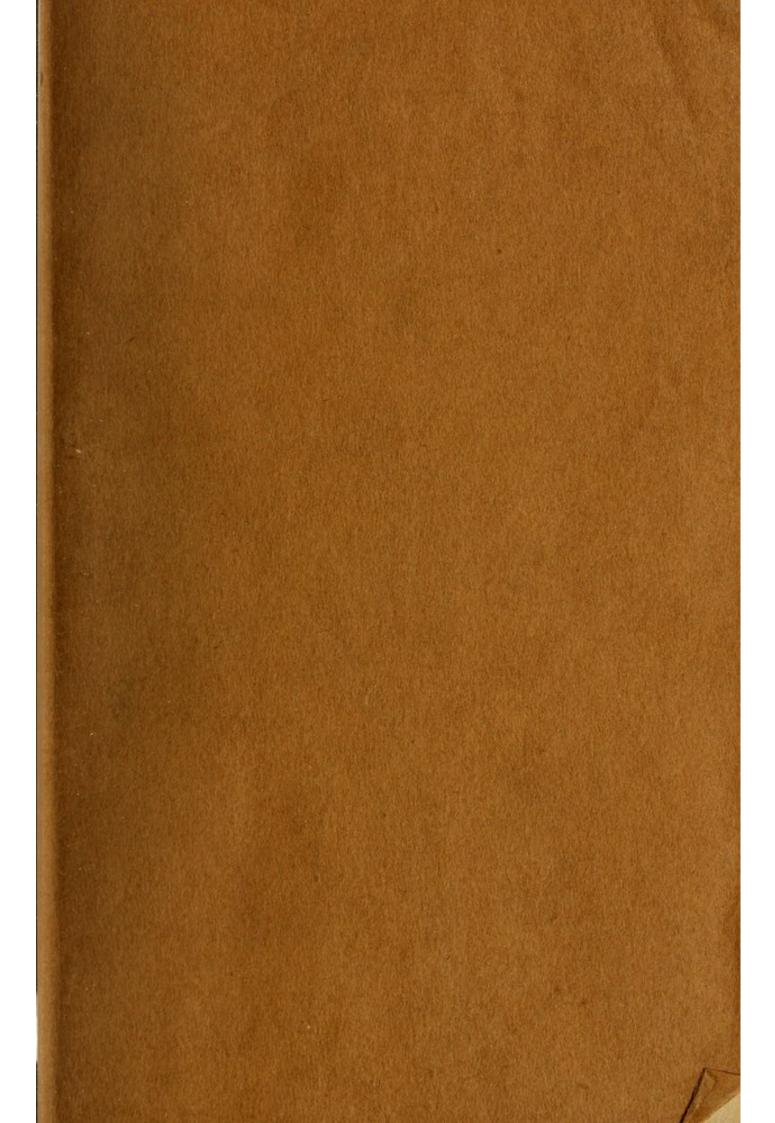
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### INVENTIONS AND DIRECTIONS

FOR

## Ruptured Persons,

TEACHING THEM THE ART OF EFFECTUALLY KEEPING UP

### INGUINAL AND SCROTAL RUPTURES.

By W. H. T. Esq.

TO WHICH IS PREFIXED,

# A RECOMMENDATORY LETTER By WILLIAM BLAIR, A.M. F.M.S.

MEMBER OF THE ROYAL COLLEGE OF SURGEONS IN LONDON, SURGEON OF THE
LOCK HOSPITAL AND ASYLUM, OF THE FINSBURY DISPENSARY, OF
THE BLOOMSBURY DISPENSARY, AND LECTURER ON THE
DISEASES AND OPERATIONS OF SURGERY.

Second Edition, with Additions.

" Non ignara mali miseris succurrere disco."

VIRGIL

2 volo w

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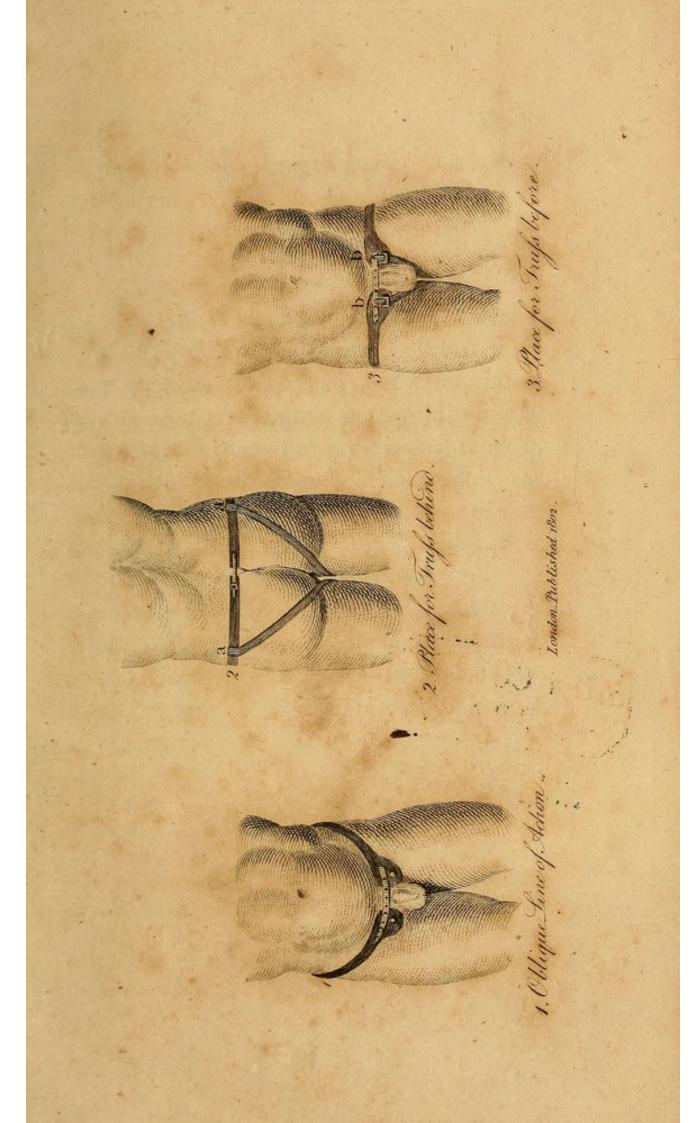
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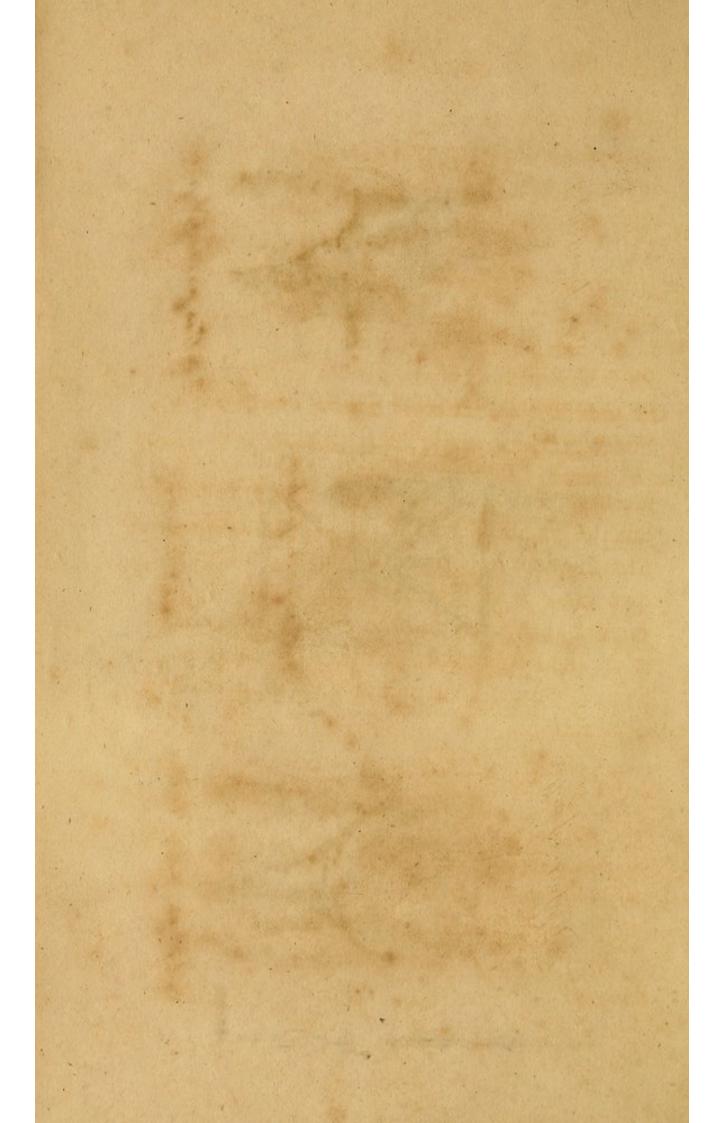
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# PREFACE.

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PREFACE.

WITH painful reluctance I disturb a repose necessary to an enervated constitution, by presuming to address the world, without even the inducement of professional fame or emolument\*: nothing could have influenced me to appear at the bar of a public tribunal but the magnitude of the subject, the Life of Man, and an experimental conviction in my own case, as well as in a great variety of others, that the ruptured man is unnecessarily living miserably or dying prematurely, from the usual construction and application of trusses,

renca

mesk, would propounce which was the best

<sup>\*</sup> I communicated my information to a truss-maker, a man of education and understanding, lately deceased; but, though I suffered twenty-four years under his care, his pride prevented him listening to me: his trusses, from my alterations and additions, are now become perfectly useful. I never could get him really to execute the meaning of the word fix: my idea of it was, to sew firmly, so as not to move.

I think with M. LE DRAN, as quoted by ARNAUD, "whatever tends to the preservation of the Life of Man, cannot be put in too clear a light; and, to conceal from the world any learning which may be useful to society, is the same treason against the public, as to bury a treasure. Let us avoid imitating such as are avaricious of their knowledge, and whose despicable jealousy would rejoice to see the world in the darkest ignorance, for the sake of engrossing to themselves the public confidence." Le Dran, Præfat. 2. Observ.

I do not arrogate to myself superior intelligence or powers, and candidly own my improvements are the result of accident and necessity (the mother of invention), as well as of experiment. A wearer of trusses must have ideas that can only be obtained by wearing such an instrument: a horse, could he speak, would pronounce which was the best saddle.

Long after my methods were executed, I was much pleased, accidentally to find that I had adopted the *old* system of firmness, and the mode of wearing a truss, of an eminent French

French Surgeon, who practised about the year 1726; and whose work, translated from the French, was published by MILLAR, in the Strand, 1748, entitled A Dissertation on Hernias or Ruptures, in two parts, by GEORGE ARNAUD, Master of Arts and Surgery; Member of the Royal Academy of Surgery, at Paris; Demonstrator in the School of St. Côme; Surgeon for Ruptures of the Hospitals of Hôtel-Dieu; the Invalids and Incurables of the City of Paris; and of all the Military Hospitals in France." I was charmed with the discovery, as I can speak in stronger terms of the system of another; and, being the system of a professional man, I hoped it would attract the notice of professional men: yet, I must do myself the justice to say, that Mons. ARNAUD's system is completely executed by means of the calico cushion, and which, perhaps, it could not have been without it.

At page 194 of ARNAUD's Dissertation, he says, "these measures ought to be divided between the surgeon and patient, till the truss has acquired a firm invariable situation:" my expression was, immoveable.

Page 203, he says, "we are to observe, whether the edge of the girdle is immediately above the fissure of the buttocks; if it is not so, we must carefully place it there, and the cushion will be in the just and proper position for stopping up the aperture of the hernia."

Page 206, he says, "as the truss is made to stop up the hole which gives a passage to the parts, so it is necessary that the cushion, (i. e. pad of the truss), should be placed directly on the hole, not under it."

I do not exactly understand Mr. ARNAUD, when he talks about "bending the iron'till it fits"; but the elasticity of our modern trusses, renders such an inquiry unnecessary.

From the number of impositions that have appeared in the world, on the subject of Rupture, one's mind is almost paralysed. I owe too much respect to the world and myself to trifle; I will assert, therefore, from my own experience and that of others, of all ranks, that during the most laborious exer-CX OF STATE WAS TO TREE DEAD.

tions, my instructions being observed, a reducibly ruptured patient, (the vertebræ and pelvis being naturally formed), may be as free from pain or danger, either from the disease or the instrument, as if he had no complaint at all.

Where the back is quite straight, and no projection of the posteriors, or of the lower hip-bones, (the great trochanters), I will not say but the truss may slip; yet, even in such a case, it has succeeded. Where men are formed in the usual manner, I aver that it cannot move.

I have the honour to inform the public, my methods have been adopted, after an investigation as to fact, with that liberality of sentiment that ever accompanies great minds, by some of the first medical characters in the metropolis.

I fear my wish to be completely understood has produced some tautology.

Agreeably to the suggestion of the Editor of the British Critic—indeed the liberal and handsome

handsome observations of our public Journalists encouraged me to proceed—a truss and the calico cushion are left at Mr. Hurst's and Mr. Hatchard's, for public inspection, who have had the goodness to take that trouble; also, a truss which has been in use near twenty years, and which once was useless. Let the effect of the buckle on the pad be observed; it is marked and worn by the thigh strap pulling against it, when the abdomen pressed forward or downward.

The profits, if any accrue, of all the editions of this publication, will be expended in trusses for the benefit of a public charity.

Obvious circumstances of delicacy prevent me from putting more than the initials of my name to this publication; but, that the public may know something of the man who addresses them, let the egotism be excused, as credibility is properly attached to situations in life. He begs leave, therefore, to observe, that he is a private gentleman, of easy fortune, and of landed property, having many years had the honor of holding a captain's commission in the militia of this country.

To conclude,

To conclude, in the words of ARNAUD, "I have, with great diligence, communicated to the public whatever my particular application has enabled me to discover".

WILLIAM BLAIR, Eso.

W. H. T.

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Great Russel Street, Bloomsbury Squere

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# RECOMMENDATORY LETTER TO THE AUTHOR,

FROM

WILLIAM BLAIR, Esq.

SURGEON OF THE LOCK HOSPITAL AND ASYLUM,

Ост. 31, 1801.

Great Russel Street, Bloomsbury Square.

DEAR SIR,

I THINK myself honoured by the wish you have expressed, that I would permit you to use my name as a recommendation of your pamphlet; but I am not quite reconciled to the idea of appearing very prominent, lest the purity of my motives should be questioned.

I have several times employed the trusses as recommended by you, which admirably well answered my wishes; and I have even found your calico pads *alone*, when applied to an old wornout truss, produce the most decided advantages, in keeping up a Rupture of long standing.

The principal benefit I have derived from your instructions and friendly intercourse, has been in the mode of applying the truss, not obliquely as is usual, but after the manner described by Mons. Arnaud; so that the line formed by the hoop or spring is exactly in a circular direction.

The trouble you have taken, in order to the revival of this method, does you great credit; and the publication of it must prove useful to unprejudiced persons, who will fairly make the experiment,

I know your intention to be honourable and disinterested, in thus stepping forward to serve your afflicted fellow-creatures. If you cannot persuade yourself to put your own name to the next edition of your pamphlet, I do not decline to afford it my feeble sanction, by permitting the insertion of this letter; but I hope you will see the propriety of informing the public to whose benevolent exertions they are indebted for so useful a treatise.

With due respect

I remain, DEAR SIR,

Your obliged Friend,

To W. H. T. Esq.

WILLIAM BLAIR..

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## NEW INVENTIONS,

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### CHAPTER I.

A LETTER OF PRELIMINARY INSTRUC-TIONS TO A RUPTURED PATIENT.

From its great ease and convenience both to the writer and reader, I adopt the epistolary form. I therefore, Sir, hope to give you such clear instructions, as will enable you to be comfortable, if the Rupture is reducible. Your wonder will cease at my success, in keeping up Ruptures, when I tell you the reason; which is, that my method really inflicts that firm pressure, which the usual mode could not do in a sufficient degree. Above the groin of every human being is a small aperture through which the intestine

intestine may descend, and which you must learn to reduce; that is, return to its place whatever comes down, agreeably to these instructions. (See chap. 3.)

2dly. Then, under the pad of the truss is to be worn a calico roller or cushion, (See chap. 5). The rough edges of this cushion are to be worn upwards and downwards; and it is to be about a quarter of an inch broader than the pad of the truss, except the side next the thigh.

3dly. As to the method of wearing the truss, (See chap. 6). Place the lower edge of the hoop part of the truss as low down behind as the division of the posteriors, but no lower, (See fig. 2). Put it straight round the body, pull it as tight as possible: it will lodge on and above the lower hip bone, and remain in its place on the aperture. If you be already in possession of a truss, wear it as above; for it must be a bad truss indeed, that will not then, with the calico cushion, keep up a Rupture: but with a thigh strap fixed to the hoop, and a buckle at the bottom of the pad, the Rupture cannot descend.

The

The thigh strap should be sewn to the hoop part after being fitted on, about one inch behind the lower hip bone, (the great trochanter). I wish you to understand how necessary this is to be done, and why the thigh strap sewn fast to the hoop at (a) should keep up the Rupture.—It is, because when the belly pushes against the pad under (b), the sewing at (a) draws (b) close to the body.

Patients generally think—
First, That the truss will drop off.

Secondly, That they are bound so tight they cannot walk. But,

Thirdly, In a short time they exclaim—I feel well! I feel no Rupture!

Be assured, in a reducible case, if success does not attend you, the only cause that a failure can be attributed to is, the want of a literal, full, and accurate attention to my instructions. I also subjoin some general directions for the ruptured:

The patient should have two trusses in his B 2 possession

possession fit for use. He should never, night or day, be without his truss on: for a cough in the night might produce a fatal descent and stricture; and by permitting the Rupture to descend, Nature has no chance of recovering the power of retaining the parts in their position.

He should, as soon as the complaint comes on, obtain medical advice; and lose no time, as by delay adhesions may be formed, which might have been prevented. The patient himself should learn to sew the thigh strap to the hoop part, and have by him more straps and calico cushions than trusses.

All persons, even those who are not ruptured, should, when riding on horseback, wear leathern breeches; as they keep the intestines in a state of quietude, therefore are less likely to become ruptured from violent exertions.

The utmost caution is necessary, to observe that the Rupture is reduced before the truss be put on, or much harm, even death itself, might might ensue; and, in young males, the situation of the testes must also be attended to.

A double truss, even for a single Rupture, is preferable; it sits as easy as a single one, and perhaps, might prevent a Rupture on the sound side.

In all cases where trusses are provided, a skilful surgeon ought to examine the patients and apply the trusses; for many instances have occurred of people wearing them, who never had a Rupture, and of others who, though ruptured, received no benefit for want of careful management in the application of the trusses they employed.

Females afflicted with reducible Ruptures in the groin, have adopted the methods here described, and with the usual success, though engaged in the most laborious work.

### CHAPTER II.

### THE AUTHOR'S CASE.

I conceive that a plain recital of my case and habits will elucidate my methods. In every part of this publication the reader will recollect, that all the observations are founded on facts within my own case, or the cases of others; and I believe it will appear, that these instructions are necessary to be known by the ruptured.

My Rupture is of that species called hernia congenita. At the age of twenty-two, (twenty-eight years ago), while riding on horseback, both the omentum and intestine descended into the tunica vaginalis testis, and was there incarcerated many hours with dreadful agony. My surgeon in the country, who reduced it, sent me to a truss-maker in London, and who

who was one of the best: he made an excellent formed truss. The late eminent Mr. Percival Pott, Surgeon, to whom the world will ever be indebted, inspected the Rupture.

I found the truss of little use; the thigh strap, which was of cotton, was not fixed to the hoop, but it hitched on a brass knob and constantly slipped off. On the most trifling exercise the Rupture descended; half my time was consumed in reducing it, and often in great pain. Above twenty times I have felt all the agonies of a strangulated gut, particularly about four years ago in Dublin, expecting my death for two days, and preferring that to the surgical operation.

Nausea, sweats, shiverings, cramps in the legs ensued; death was my only prospect—when suddenly and unexpectedly, from the applications used by my surgeon, the Rupture became reducible; and, as far as I am able to form an opinion, a novel case happily for me occurred: and the irritation has, as far as I can judge, detached the omentum from the testis.

The omentum is now reducible; and since my improvements were made the Rupture never descends, except when the truss is removed, and then it comes down to a great size. So powerful are the combined effects of these improvements, that with safety I have performed the most violent exertions on foot and horseback; ascending and descending the steps of the monument with designed rapidity; leaping over hedges, &c. for experiment, before I addressed the public.

From the same cause, the same happy consequences have attended even a printer, weaver, porter, and other labouring men, of all ages. I wear this double truss with a steel spring night and day, without inconvenience; and from its immoveable position and use, happily forget both the complaint and the truss. For years, I laboured under, at times, the most excruciating pains from swelled testes; the cause then did not occur to me: these pains were produced by the hard part of the truss injuring the spermatic vessels.

A repetition of these dreadful pains from a rough journey in a mail coach opened my eyes,

eyes, about three years since; and, from an idea accidentally communicated to me, I adopted the use of, and by various experiments brought to perfection, the calico cushion, since which time the pains in the testes have ceased. Twenty years ago I attempted my plan of immoveability; but did not succeed, the spermatic chords being unprotected.

I should observe, that some of the same trusses which were useless to me before the improvements were used, are now quite effectual.

be a lateral recession of pressure from the aperture, which will give ease when the intestine or omentum cannot from inflammation return through the aperture \*.

Another position in cases of difficulty is; to lay upon a charryish its back on the floor, the patients' heels to be placed against the wall, and his head on the ground.

\* Lamindepred to Mr. Morrie, Surgeon, of Dublin, for this deal.

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THE MODES OF REDUCING A RUPTURE.

my plan of immoveability; but did not suc-

shion, since which time the pains in the testes

In cases of strangulated intestine, or of stricture, the patient should lay on the side

of his body contrary to that on which the Rupture is; by which position, there must be a lateral recession of pressure from the aperture, which will give ease when the intestine or omentum cannot from inflamma-

tion return through the aperture \*.

Another position, in cases of difficulty is, to lay upon a chair with its back on the floor, the patients' heels to be placed against the wall, and his head on the ground.

<sup>\*</sup> I am indebted to Mr. MORPIE, Surgeon, of Dublin, for this idea.

Let the breath be held in before an attempt is made to reduce the bowel; the acts of breathing and speaking contribute to force down a Rupture.

Cover the fingers with the shirt or handkerchief, by which means the Rupture is gathered up with more certainty and dispatch.

To render the practice easy to every one, I use the expression knead the bowel upwards through the aperture, as dough is kneaded\*; but during a state of inflammation, press upon the intestines very gently, if at all.

By comparing the ruptured side of the body with the sound side, it may be seen and felt when the Rupture is reduced.

raw the thinh strap under the thigh

Method makes every thing easy, therefore observe the following directions in the order in which they are placed:

CHAP.

<sup>\*</sup> In the act of kneading, the fingers are to be extended and drawn forwards, gently and shortly.

Motion

- 1. Lay down.—The head is to be lowered, and the heels to be drawn up, or the knees to be raised.
  - 2. Hold in the breath.
  - 3. Be perfectly silent.
- 4. Cover the fingers with the shirt or handkerchief.
  - 5. Knead up the Rupture.
  - 6. Put on the cushion and truss.
- 7. Draw the thigh strap under the thigh very tight, and buckle it to the pad.

## of gamoils CHAPTER IV.

buckle to be of reat's leather. The thigh

strap to be sawn with strong double thread

the, lined with moderately thick tage, to

The thigh strap to be made of wash-lear

ON THE CONSTRUCTION OF A TRUSS.

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thigh strape, presented aft on the bottom

part of the rad of the truss. . (See plate of

The pad should be broad and flattened, though not entirely flat. A pad of this kind causes more pressure than those which have a round elevation in the centre, from a false idea of producing pressure into the aperture; and the neck of the pad should be short, for if it be so long as to lay on the thigh, the truss would move, and the Rupture descend. A short necked truss will lay in the hollow of the groin.

The hoop or spring part of the truss must be formed in an exact circular line with the pad.

Not much edging of leather should project from the hoop of the truss, nor any quilting or stuffing. The The thigh strap to be made of wash-lea ther, lined with moderately thick tape, to prevent its stretching; the end adjoining the buckle to be of neat's leather. The thigh strap to be sewn with strong double thread well waxed, to the hoop part of the truss, and looped over it: by this fixture of the thigh strap\*, pressure will act on the bottom part of the pad of the truss. (See plate, fig. 2. a. b.)

The bottom part of the pad of the truss is one part that stops the aperture: I have invented a double-tongued buckle, instead of the lower brass knob; this buckle draws and fixes the bottom of the truss close to the abdomen---there should be a groove in the buckle for the tonguest,

<sup>\*</sup> I must repeat, that the thigh strap, from its importance, cannot be sewn to the hoop part of the truss 'till after the truss has been fitted on; then sew it nearly one inch behind the lower hip bone, or the great trochanter, which projects below the thigh joint.

<sup>†</sup> It is material that the tongues should be out of the way: nothing would be better than buckles with inverted tongues, i. e. on the inside, agreeably to the plan of JACKSON'S patent knee-buckle.

Any truss, (constructed contrary to the above directions), will fail of keeping up a Rupture with certainty.

The double-tongued buckle is to be placed on the pad, in such a manner, as to have effect; the cross front strap should be lined and edged, which adds to its power.

In all and every part of the truss, in its sewing, its straps, its appendages, observe only one idea, and execute it: let there be ACTION, and materials of the best quality.

The dangers of a circular steel spring have been mentioned: a truss cannot have proper effect without a steel spring; it is not the spring, but the hard part of the pad of the truss that is dangerous, and has ruined many a man\*.

The

\* There are cases, in which, I think, a steel spring cannot be used without danger; but those cases, I believe, exist only in infants or very young persons, whose bones are soft, and the body in a rapid state of increasing bulk from growth.—In these cases it is highly desirable to try the effect of a leathern girdle with the pad, as usual:

The double truss should be united behind by a double-tongued buckle and strap, to let out or take in; and not formed in one horrid hard steel spring, cutting the loins to pieces.

usual; this being applied straight round the body as directed, and with the calico cushion, perhaps, might keep up a Rupture.

In adults, the steel spring seems to me highly necessary, and it can do no harm. I do not think that, to perform the usual exercises of life, there can be compression and power enough without a steel spring; but, I cannot positively decide without a trial.

The dangers of a circular steel spring have been mentioned: a truss capnot have proper effect without a steel spring; it is not the spring, but the hard part of the pad of the truss that is dangerous, and has rained many a man\*.

cannot be used without dangers, but those cases. I but here, exist only in infants or very young persons, whose bones are soft, and the body in a rapid state of increasing bulk from growth.—In those cases it is highly visitable to use the fibil of actualities grotte with the pair of

\* There are cases, in telech, I think, a steel spring

### CHAPTER V.

THE DESCRIPTION AND USES OF A CUSHION OF COARSE CALICO, WITH INSTRUCTIONS HOW TO FORM IT.

adiciously made, will, even with a

Cur or tear a slip of coarse calico\*, about twelve inches in length. Form it into a square, of a size that it will project a quarter of an inch round the edges of the pad of the truss, except that end next the thigh; but, having no projection beyond the neck of the pad: the rough edges are to be upwards and downwards; then tightly fold over the first slip many others. For a grown person, the thickness should be about three-quarters of an inch: there is more danger of forming this cushion too thin than, too

\* About 1s. or 14d. per yard.

thick;

thick; its thickness or thinness must depend on the *size* of the patient. When the hollow in the groin is completely filled up by it, and it remains immoveable under the pad of the truss, it is then of a proper size.

This calico cushion is to be worn under the pads of the truss; the outer slip or two of which may be changed at pleasure, for the purpose of cleanliness, or restoring the cushion to a proper degree of thickness. This cushion, judiciously made, will, even with a bad truss, most materially assist in keeping up a reducible Rupture; and, with a truss made and used according to the directions of the Author, aided by his other improvements, will render the descent of a reducible Rupture, impossible. Where the omentum is not reducible, the application of this cushion is much preferable to the usual mode, by affording it protection from the injuries of pressure.

Its various and beneficial properties are immense; and would appear wonderful, if not explained: First, It protects the spermatic vessels from being injured by the hard pad of the truss, which injury often produces hydrocele, inflammation of the spermatic vessels, hernia humoralis, &c.

Secondly, By protecting the spermatic vessels from the injuries of pressure, it produces a desideratum never before obtained. It enables the patient to girt the truss round the body with such an effective degree of tightness, that the Rupture cannot descend.

Thirdly, By uniting the properties of softness and solidity, it yields to the form of the abdomen; and thus completely fills up the aperture or ring in the abdominal muscles, through which the Rupture descends.

Fourthly, It is an additional column of pressure; and the truss being tightly fastened, keeps the omentum and intestines all round and above the aperture, in such a state of quietude, that it lessens their power in descent: and they are therefore less likely to protrude; on the plain mechanical position, that the smaller degree of force with which a

CHAIR

body moves, the smaller force it possesses at the end of its action.

Fifthly, It elevates the pad part of the truss to the line of elastic action with the hoop part, and thereby preserves and enforces its elasticity, retaining the truss in a state of permanent effect.

Lastly, On the tight application of this cushion, the patient is also relieved from all rumbling pains arising from the internal and partial descent of the Rupture, and from its combined qualities we accomplish the most difficult attainments; being enabled to inflict pressure on substances naturally too tender to bear pressure, and thereby enforce a system of *immoveability*; without the adoption of which, the use of all trusses are inefficacious.

It is necessary to add, that neither fine, old, nor washed linen, will have the desired effect; and a cushion after use, having acquired its form, is better than a new one. Its edges should be occasionally clipped; and the cushion should be formed of separate slips, as before directed, to be folded over each other.

CHAP.

### CHAPTER VI.

wers but very many inches

ON THE MODE OF WEARING THE TRUSS,

FOR AN INGUINAL OR SCROTAL

RUPTURE.

THE art of putting a truss on the human body has appeared so easy, as not to be considered as an art.

The immutable laws of motion were not adopted in the usual mode of wearing the truss: it was the custom to raise the spiral hoop part on the hips, (See plate, fig. 1.) several inches higher than the pad part; by which method, a false and oblique line of action was adopted, and of course, a small pressure on the aperture\*. The hinder part of the truss

<sup>\*</sup> In like manner, if the bandage put round the arm after bleeding, was to be placed one part of it disproportionately higher than the other, there would not be sufficient pressure to keep the compress on the orifice of the vein, and the patient might bleed to death.

was always put very many inches too high. The following mode is adapted for Ruptures in the groin: (See plate, fig. 2. 3.)

Place the hind part of the hoop of the truss as low down \*, as the fissure or division of the posteriors, but not lower; continue the hoop part or parts in an exact circular line round the body, (the spring of the truss being made in a circular line). This mode, the edge of the hoop lodging on, over, and above the great trochanter, and below the margin of the hip-bone, will keep the pad or pads of the truss on the apertures; producing to the wearer the most effective action, and removing the truss from a painful, galling, moveable situation—to an easy, comfortable, and immoveable one.

But it is necessary to unite all the improvements here suggested, to produce entire safety and effect, most particularly by strong sewing the thigh stap to the hoop part of the truss; then draw this strap as tight and close as possible round the thigh to the buckle on the pad

<sup>\*</sup> Agreeably to Mr. ARNAUD's own directions and words. m; and the patient might bleed to death

of the truss: tightness of girting decreases, rather than causes the galling, by lessening friction.

Another advantage which arises from this mode of wearing the truss is, that it will not be seen.

When the double truss is put on as it ought, it should be pulled so very tight \* as to make the flesh, between the two pads, rise to the thickness of the fore-finger. There will be no pain; for the pressure is only where it ought to be, on the pad or pads of the truss.

The single truss should be pulled as tight as possible; the cushion enables it so to be done, and two brass knobs should be invariably on the upper part of every truss.

Patients, whose Ruptures could not be kept up, and who had, for above twenty years, tried all kinds of trusses, are now by this plan completely comfortable, and perform all exercises.

1. 68 mm

<sup>\*</sup> The hinder strap also, that unites the two parts of the truss, should be properly tightened, and kept so.

### CHAPTER VII.

er along vaniers the gold out

CAUTIONS AGAINST DUMB BELLS.

Must point out one possible cause of Rupture, both inguinal and umbilical; I mean dumb bells, which are also used both in our armies and our boarding schools, for the purposes of expanding the chest, or obtaining exercise within doors. One case of a gentleman came to my knowledge, who became ruptured in the act of using dumb bells, which caused these observations. Let their violent action on the body be observed, and their possible effect is obvious. I hope this caution will either banish the use of them from our armies and schools; or, at least, put persons on their guard, in having recourse to such dangerous bodily exertions.

### CHAPTER VIII.

A RECAPITULATION OF THE AUTHOR'S IMPROVEMENTS.

No.

- 1. THE fixture of the thigh strap to the hoop \* part of the truss, invented by the Author twenty years ago.
- 2. A buckle and its double tongue on the pad +, with a groove for the tongues, instead of a brass knob.
- 3. The mode of applying the thigh strap.
  - 4. The calico cushion.
  - 5. The mode of wearing the truss.
    - 6. The application of the laws of motion.
    - \* See plate, fig. 2, (a). + See plate, fig. 3, (b).

#### EXPLANATION OF THEIR USES.

No.

- 1. The strap draws and fixes the lower part of the pad of the truss to the body, and which *lower* part keeps up the Rupture.
  - 2. It fixes the pad against the body.
- 3. It draws the thigh strap close to the flesh, thereby enforces actions of N°. 1 and 2.
  - 4. See Chapter V.
- 5. Exchanges pain, inutility, and moveability, for ease, utility, and immoveability.
  - 6. Produces mechanical effect.

### CHAPTER IX.

ON THE PERMANENT CURE OF TURES.

A SHALL not presume to give my own opinion on this subject, but most seriously recommend to the perusal of the ruptured some few quotations; and request they will recollect, that they were the opinions of one of the first surgeons in Europe, the late Perci-VAL POTT, Esq. of St. Bartholomew's Hospital. I must remind the ruptured man, that, as if his complaint did not make him sufficiently miserable, he has been in all ages, and yet is, a marked character for depredation, by all sorts of unprincipled personages.

The doctrine of the cure of Ruptures is a mine of wealth to the Rupture-monger, and of plunder and misery to the patient.-Mr. POTT says, in his Treatise on Ruptures,

E 2

Sect.

Sect. 13, Attempts towards a radical Cure—
"No disease has ever furnished such a constant succession of quacks as Ruptures have.

- "Our present newspapers daily supply us with a number of the lesser dealers in specific medicines and new-invented bandages, by which the poor and credulous are gulled out of what little money they can spare. Operative quackery is not indeed so frequent, or so readily submitted to; but I wish I could say, that more than one life has not been destroyed in our time, by attempts to form and support the character of an operator in this disease. To this kind of hazard the poor are luckily not so liable, as it can only be worth the while of these Rupture doctors to MURDER those who have before hand been simple enough to pay them well for it.
- "I have already said, that to replace the prolapsed body or bodies within the cavity of the belly, and to prevent their falling out again, by means of a proper bandage, is all that the art of surgery is capable of doing in this disease. Whether Nature will be capable of so contracting the part as to prohibit

a future descent or not, is a matter of great uncertainty, and which can be known only from the event.

" This is a subject in which mankind are much interested, and on which a good deal might be said; but, as an honest attempt to save the afflicted from the hands of those who have no character to lose, and whose only point is money, might, from one of the profession, be construed into malevolence and craft, I will not enter into it; but shall conclude, by wishing that they who have capacity to judge of these matters, (which are as much the objects of common sense as any other kind of knowledge), would not suffer themselves to be deluded by the impudent assertions of any charlatans whatever; but determine in this, as they do in many other things, that is, by the event.

"In short, if they who have so much credulity as to be inclined to believe and trust these lying impostors, would only defer the payment of them till they had completed their promises, the fallacy would soon be at an end."

The ruptured patient goes unrelieved from patentee to patentee, from truss-maker to truss-maker, and laments his wretched Rupture; when the only lamentable fact is, he has a wretched truss, more wretchedly put on.

In the reign of King George the First or Second, the parliament granted five thousand pounds to a pretended curer of Ruptures; yet Queen Caroline, (see Lord Orford's letters) lived wretched, and died of a Rupture.

I must quote from the ingenious Mr. White's Antiquities of Selborne, in Hampshire, an anecdote he there relates, of a rustic mode of curing Ruptures in children:—"At Tring, in Hertfordshire, a young ash tree is sawn partly in two, the ruptured child is drawn nine times through the middle of the tree, which is then closed up, covered with clay, and tied together; if the tree lives, the child is to be cured of its malady."

I have heard of the same judicious method in other places.

### CHAPTER X.

the state of the principal formality

ON THE PHENOMENA OF RUPTURES.

I CALL the phenomena of Ruptures those events that are not to be easily accounted for. A Rupture will sometimes cure itself; that is, the intestine will resume its position and health, even in adults, without any apparent cause; as happened to myself, on the right side, twenty-four years ago, and also to a friend of mine. I have heard of other similar cases; but no man can reasonably expect such an event, and remain indifferent with his disorder.

A Rupture may have a proneness of descent for weeks together, the patient in equal health, and using no exertion but walking across a room; and yet, at other times, it will keep up, though exertion is used, and the same trusses on.

A Rupture unattached, either of the intestines or omentum, will, sometimes, most suddenly recede into its place, without any assistance from the patient. This is more especially apt to occur, immediately after a violent looseness of the bowels.

### CHAPTER XI.

MILITARY, PAROCHIAL, AND HOSPITAL CONSIDERATIONS, ON RUPTURES.

It is to be wished, that ruptured soldiers, when discharged from the army, should be furnished with trusses, even at their own expence. The stoppages of a few shillings for that purpose, might save them much future pain and misery.

It is to be lamented, in a country peculiar for its humanity and wisdom, that the indigent, who are ruptured, should suffer merely from want of due exertion in their behalf. That a fellow-creature should languish for years and become burthensome to his parish, because a few shillings are not expended in a truss, is most absurd, as well as cruel.

The

The parishes in London, in some measure, provide trusses for their poor; but I fear, that in the country, many parochial officers know not what a Rupture is, and the ruptured wretch only knows by his agonies. I wish in every parish in England there was a charitable subscription to furnish trusses, and to have them ready for their own poor or their children; and, that an indigent man could as easily get a truss, as a loaf, from his parish officers.

It would be highly useful, if the well-disposed would leave legacies to those of our hospitals—St. Bartholomew, St. Thomas, Middlesex, &c. &c.—that receive ruptured patients in cases of strangulated hernia, for the specific purpose of buying trusses: one hundred pounds only, would do much good. The hospitals can maintain the patients, but not provide them with trusses, from the nature of their establishment.

I knew a woman who had endured the operation, and other instances of patients, who were obliged to be discharged without trusses;

for want of which, after a single day's labour, they might have been in the same miserable situation again.

> London, December, 1801.

POSTSCRIPT.

The author accidentally omitted to mention that a specimen of his trusses may be seen by any medical gentleman, at Mr. J. Callow's, Bookseller, Crown Court, Soho; who will also take the trouble of referring persons that desire it, to a truss-maker of ability, who is acquainted with the author's inventions and directions.

THE END.

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# APPENDIX

TO A PUBLICATION, ENTITLED

NEW

### INVENTIONS AND DIRECTIONS

FOR

# Ruptured Persons,

&c. &c.;

CONTAINING

A FAMILIAR ACCOUNT

OF THE

NATURE OF RUPTURES, IN BOTH SEXES.

By W. H. T. Esq.

And recommended to every Ruptured Person as a necessary Companion, to preserve them from the ill Consequences of their Complaint.

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# SPENDIX

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### PREFACE.

Mons. Arnaud's Treatise on Hernia or Ruptures, being out of print, and Mr. Pott's admirable Treatise being chiefly for the use of professional men, it is hoped the following extracts from those works will benefit society, by disseminating familiar information on that subject; for there is nothing more dreadful, than "to labour under a troublesome disorder, perhaps in the most joyous and active part of life \*."

A Rupture cannot be prevented, but in general its consequences may. And probably, the unhappy death of a late illustrious Duke might have been prevented, if he had known the exact nature of his malady, and the means of obtaining EARLY relief.

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Mr. Pett.

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### APPENDIX TO NEW INVENTIONS,

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The world is alar highly indubted to Monsairs, a French Surgeon, who practised in Paris

#### LETTER I.

quotations from him, though we now must smild

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about seventy vears einer, for his learned and

familiar Treatise on Hernia or Ruptures.

My DEAR SIR,

I WISH to excite an universal attention to Hernias or Ruptures, and to diffuse such a general knowledge of this subject, as is absolutely necessary to be known by every one, from the proneness of the human body to such complaints.

The great Percival Pott, Esq. late Senior Surgeon of St. Bartholomew's Hospital, not only enlightened the profession by his important surgical discoveries, but endeavoured also to give information to ruptured persons how to preserve themselves from the bad effects of "prejudices," of the prevalence of fashion, of tricks, quacks, of dealers in specific medicines and new-in-

- " vented bandages, and of rupture doctors, who
- " have been largely rewarded when they ought to
- " have been hanged."

The world is also highly indebted to Mons. Arnaud, a French Surgeon, who practised in Paris about seventy years since, for his learned and familiar Treatise on Hernia or Ruptures.

I much admire this author, and shall make many quotations from him, though we now must smile at his "Ptisan," to cure Ruptures.—Page 161, Take of the roots of dogs-grass, one ounce; of rupture wort, two ounces; and of the root of madder, two ounces: boil the whole in six pints of water, reduced to four.

Thank God! the medical mind is now as liberal as is their divine profession of the art of healing.

Our dispensaries are no longer disgraced by such remedies as "the moss of a dead man's skull," and gun-shot wounds are now better treated than they were at the siege of Turin, in the year 1536, by the following mode: ---

Two young whelps boiled alive in white wine to a jelly.

One pound of earth worms.

Two pounds of oil of lilies.

Six ounces of the terebinth of venice.

One ounce of aqua-vitæ.

Pour the whole burning hot into gun-shot wounds.

John de Vigo saw this recipe compounded.—The late Mr. Grose recited this Anecdote.

Could L' who are well known in the world, dare

Leprosy was once the scourge of mankind, and hospitals were endowed for the cure and maintenance of lepers; yet now we scarcely know what is meant by such a complaint. The most dreadful complaints have been, and might be removed or alleviated, by human science.

Every feeling heart must deplore the death and

The Small Pox once unnecessarily ravaged the earth: but thanks to Lady Mary Wortley Montague, who introduced inoculation; to Baron Dimsdale, for practising it, and also for the cool mode of treating that complaint; and to those noble medical men of the day, who adopted it: and thanks to Dr. Jenner, for his Vaccine Inoculation. These days of evil are passing by!—And shall Hernia or Rupture yet unnecessarily desolate mankind? And must the poor ruptured man be forgot, and live miserable, and die wretched? God forbid! Surely, Sir, it is worth our while to inquire into the very important position of mine,

Rupture

"That during the most laborious exertions, my instructions\* being observed, a reducibly rup"tured patient in the groin, (the vertebræ and pelvis being naturally formed), may be as free from pain or danger, either from the disease or "the instrument, as if he had no complaint."

Could I, who am well known in the world, dare to make these assertions, if untrue? Or, would any medical character of consequence and respectability, have sanctioned such an assertion? Were it untrue, I should be exposed to the utmost disgrace. What is to be gained by it?

The late Mr. Grose recited this Anecdote,

moved or alleviated, by human science.

Every feeling heart must deplore the death and sufferings of the late illustrious Francis Duke of Bedford. His death was a national loss, and can only be nationally repaired, by its exciting an investigation into the real nature of Ruptures. To his friends, alas! there can be no reparation Every thing was done, that science could do, by those highly respectable men who attended his Grace: my object is, to prevent the descent of a Rupture, and its fatal consequences, as prevention is better than a remedy; and, if his Grace's

and live mise able, and die wretched? God for-

<sup>\*</sup> See the author's Essay, entitled "New Inventions and Directions for Ruptured Persons." SECOND EDITION; sold by HURST, HATCHARD, and CALLOW, London.

Rupture was reducible, and my modes of keeping up a Rupture, had been adopted by him, the fatal descent could not have happened. I knew of his Grace's complaint, and wish I had done as I intended; which was, to have sent a calico cushion and my book, anonymously; but a foolish delicacy prevented me. Indeed, Hernia or Rupture, has been, is, but I hope will not long be, such a scene of imposition, that a man cannot obtain a general belief for the hardiest assertions. Rupture, like death, does not respect persons.

" Mors æquo pede pulsat." Hor.

Even the most illustrious suffer: according to Lord Orford's Letters, Her Majesty Queen Caroline suffered much from, and died of, a Rupture.

The journals of the time state, that Her Majesty Louisa Queen of Denmark, youngest daughter of His Majesty King George the Second, born Dec. 7, 1724, died in the last stage of her pregnancy of a Rupture, Feb. 19, 1757.

Poor Michael Servetus complained in a letter to those cruel Magnificent Lords at Geneva, who brought him to the stake, "That the pains of his "Rupture, added to the sufferings of his confine "ment." The late eloquent historian, Mr. Gibbon, suffered, and I believe died, in consequence of his Rupture, and his supine neglect of it. That a man of his sense should neglect himself, almost makes one suppose, there is something in Hernia, that paralyses the human mind.

A physician of the first-rate science, a few years since, carelessly left off his navel truss, and died of a strangulated Hernia. I must not blame in others that idle conduct I have been guilty of myself.

prevented me. Indeed, Hernia or Rupture, has

Jean Jaques Rousseau was also a fellow-sufferer.

In his family, who were respectable farmers, in the county of Kent, Mr. L—— informed me of the following dreadful events: His mother died of a Rupture, as likewise his uncle and his sister; his brother has the same complaint; and Mr. L—— himself, who suffered twenty years from the usual application of Trusses, is now completely comfortable by the new mode.

Indeed, Mons. Arnaud positively thinks, that one person in eight labours under this complaint; others say, that a tenth, sixteenth, or a twentieth part of the human race is troubled with Hernias: either calculation enumerates a dreadful proportion!

In my first Treatise, entitled "New Directions, &c." I have pointed out the mode of certainly keeping up Ruptures in the groin, under any exertion; and now with laudable impartiality will point out substantial reasons why this mode should not be adopted:

First. Because it is a new and a very extraordinary circumstance.

Secondly. Because it is not expensive, costing only about one shilling.

Thirdly. Because it will injure the past and future interests of speculating patentees.

Fourthly. Because it consists only of simple, self-evident, mechanism.

Fifthly. Because it will enable ruptured paupers to get their bread, and to remove their families, from the work-house, and so lower the poor's rates.

Sixthly. Because it will make the ruptured negroes perform their labour more happily.

Seventhly. Because it will double the value of these ruptured negroes to the West-India planter, and enrich him by saving their lives. Eighthly. Because our grandmothers did not know of this mode.

keeping on Rustimes in the groin, under any e.g-

Ninthly. Because it will lessen the frequency of that dreadful, but difficult operation, for a strangulated Hernia.

Tenthly. Because the pride, private interests, and prejudices, of some few men, will be hurt by its adoption.

Eleventhly. Because it will increase population, by saving men's lives.

Twelfthly. Because that tyrant custom would be trampled on.

To be serious, Sir, let us examine into the causes or the misery, of the ruptured. It is NOT the COMPLAINT that is so dreadful, unless a strangulation takes place in the first descent; but our mode of treating it, and our neglects, create the misery: another cause is, the separate interests of others, "caveat emptor." "Let the buyer beware," is a sage maxim, on all occasions, and particularly necessary in buying a truss: it is the cheapest, safest, and best way, in the first instance, to apply to a gentleman of the faculty of character, and the only one to be delivered from our thraldom. Men of liberal education are generally liberal.

My instructions are plain enough for any person to make use of them. As to patentees, the use of the calico cushion will lessen the dangers of some of their inventions: but you will say, "Sir, all this is very arrogant, very assuming. Is there no way, Sir, to keep up Ruptures, but your's"?—I answer, there is no other way to do it with certainty, for the following series of truisms:

That if an aperture, or hole, is to be stopped up, the hole is not stopped, when the substance applied thereto, removes from it.

perients would be bound up so, that they could

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That if you cannot press close or tight enough on this hole to stop it, because a tender substance, (the spermatic vessels) are near it, then that tender substance must be protected by something soft, (the calico cushion.)

That a substance of pressure cannot fasten on the hole, if the lines of action of the bandage and its straps be not correct to fasten it thereon.

I therefore, Sir, take the liberty of saying, my mode alone is right; because, in mechanical actions, there is only a right and a wrong. If you lift up the bottom part of a substance, laterally B applied

applied to a hole—Does not the substance contained therein run out, whether intestine, caul, quicksilver, water, or any substance whatever? And I boldly say, the bottom part of the pad can only be kept on the hole, by a strap fixed to the hoop to draw it down, and a buckle on the pad, when the belly lifts it up. You see, Sir, natural and obvious mechanism in the construction and in the mode of wearing the truss, is the basis of my improvement. I bring no nostrum or juggle before the world.

Some gentlemen have reasonably thought, that patients would be bound up so, that they could not move. Patients invariably think, till they try, they are fettered so that they cannot move. The fact is the very reverse. The instrument, in my way, binds only the pad part on the hole; the old mode bound where it ought not, not where it should.

I humbly recommend gentlemen of curiosity, and those who apply trusses, whether ruptured or not, to wear a truss a short time by way of experiment; then the difference of the old and new mode will appear self-evident to them.

Having now, I hope, in a great measure annihilated hilated the consequences of Rupture, and produced a new æra in the state of man, we will attempt to give a useful account of Ruptures, chiefly extracted from Mr. Pott's and Mons. Arnaud's Treatises.

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the cavity, in which other ought sustantially to

IGNORANCE is the fountain of human misery, therefore, Sir, let us inquire what is meant by a RUPTURE or HERNIA.

"By the term Rupture, Descent, or Hernia, is in general meant a swelling, produced by the falling down, or protrusion of, some part or parts, which ought naturally to be contained within the cavity of the belly\*.

"The places in which these swellings make their appearance, in order to form what is called a RUPTURE, are the groin, labia pudendi, the upper and fore-part of the thigh, and every part of the anterior, or front part of the abdomen or belly.

" The parts, which by being thrust forth from

the cavity, in which they ought naturally to remain, and which form these tumours, are a portion of the omentum, a part of the intestinal canal, (that is, a part of the bowels), and sometimes, (though very rarely), the stomach.

"From these two circumstances of situation and contents, are derived all the different appellations by which Hernia are distinguished: for example, they are called inguinal, scrotal, femoral, umbilical, and ventral, as they happen to make their appearance in the groin, cod, thigh, navel, or belly.

falling do are of profession

"If a portion of intestine only forms it, it is called Gut Rupture; if a piece of omentum only, Caul Rupture; and if both intestine and caul contribute mutually to the formation of the tumour, it is called Compound Rupture: if the piece of gut or caul descends no lower than the groin, it is said to be incomplete; if the scrotum be occupied by either of them, the Rupture is said to be complete.

"Both the scrotal and femoral pass into the thigh out from the abdomen, (or belly), by openings, which are natural to every human body; as well

well those who have not Ruptures, as those who have \*".

As these extracts are intended only for those who require common information, I think it is not necessary to follow Mr. Port through all his anatomical researches, but only observe "The former Rupture, that is, the scrotal, descends by means of an aperture in the tendon of the external oblique muscle near the groin, designed for the passage of the spermatic vessels in men, and the ligamenta uteri, in women; and the latter, under the hollow, made by Poupart's, or Fallopius' ligament, at the upper part of the thigh, along with the great crusal vein and artery †.

"The ligament of Fallopius is in the lower border of the tendon of the external oblique muscle of the belly, stretched from the fore-part of the os ileum, or haunch bone, to the pubis.

"The pair of muscles, called the oblique external ascending, cover all that part of the belly which is without bone, &c. They are fleshy on the sides, and tendinous in the middle and lower part; they spring from the seventh and eighth ribs, and are inserted into what is called the linea alba, the spine of the os ileum, and into the os pubis. At the lower part of the belly, on each side, a little above the last mentioned bone, the fibres of the tendon of this muscle separate from each other, and form thereby two apertures, through which pass the spermatic vessels in men, and the ligamenta uteri in women. These openings are of an oval figure, &c. and are of a larger size in men than women.

"The inside of these muscles, and indeed the whole cavity of the belly, is lined with a smooth, firm, but easy dilatable membrane, called the peritonæum: I shall only observe it lines the whole abdomen, and gives an external coat to every viscous contained in it.

"Behind the peritonæum is a loose cellular membrane, by some called its appendix, which is found in different quantities, in different places. This cellular membrane, void of fat, surrounding the spermatic vessels, as they pass forth from the cavity of the abdomen into the groin, is called the tunica vaginalis of the chord; which chord descends through the groin, to the testis.

<sup>&</sup>quot;The tunica vaginalis testis, is a membrane per-

fectly distinct from this tunica vaginalis of the

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"Let us remember the weakest part of the membrane, called peritonæum, is opposite to the natural opening in the tendon of the external oblique muscle, and that the acknowledged use of the muscles of the abdomen, (or belly), is by pressing on all its contained viscera to assist digestion, the expulsion of the fæces, urine and fœtus, and that in many natural actions, such as sneezing, coughing, &c. and in all great exertions of strength and force, our erect posture must necessarily occasion a pressure to be made against the lower part of the inside of the belly, by some of its contents; a very probable and satisfactory account of the origin of the common inguinal, (in the groin), and scrotal Rupture, may be collected.

In young children this descent or protrusion happens most frequently when the child strains in crying, &c.; as soon as the effort ceases, and the child is quiet, the part generally returns up again, and the swelling disappears. The nurses call it wind, and it is, at first, frequently neglected, as the child is not apparently injured by it, and few people are aware of its possible consequences.

"Adults are attacked by this complaint, either by falls, strains, great exertion of strength, difficulty of expelling hard fæces, or a general laxity of frame.

Whether the Rupture be inguinal, scrotal, or femoral, and whether it consists of intestine or omentum, or both, the protruded part must carry before it a part of the membrane which lines all the internal surface of the abdominal muscles, or rather the whole cavity of the abdomen; and is called, peritonæum. This portion of the peritonæum, including the piece of gut or caul, is known by the name of the hernial sac, and is larger, or smaller, according to the quantity of intestine or omentum contained in it.

"The signs, or marks, of a common inguinal, or scrotal Rupture are, in general, a swelling in the upper part of the scrotum, or in the groin, which tumour has a different appearance, and different feel, according to the nature of its contents, and to the state and quantity of them; if a portion of intestine forms it, and that portion be small, the tumour is small in proportion: but though small, yet if the gut be distended with wind, inflamed, or have any degree of stricture made on it, it will be tense, resist the impression

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On the contrary, if there be no stricture made by the tendon, and the intestine suffers no degree of inflammation, let the prolapsed piece be of what length it may, and the tumour of whatever size, yet the tension will be little, and no pain will attend the handling it: upon the patient's coughing, it will feel as if it was blown into, and in general it will be found very easy returnable.

"If the Hernia be of the omental kind, the tumour has a more flabby, and a more unequal feel; and if the quantity be large, and the patient adult, it is, in some measure, distinguishable by its weight.

"If it consists of both intestine and omentum, the characteristic marks will be less clear than in either of the simple cases.

"The only diseases with which a true Hernia can be confounded are, the venereal buboe, the hydrocele, and that defluxion on the testicle, called "Hernia humoralis".

"It is to be observed, that the same kind of Rupture, in different people, and under different circumstances, wears a very various face. "If the subject be an infant, the case is not attended with much difficulty; the softness of their fibres generally rendering the reduction easy, as well as their descent.

"If the patient be adult, and in the vigour of life, the consequences of neglect, or mal-treatment, are more to be feared than at any other time, for reasons, too obvious to need relating. The great and principal mischief to be apprehended in an intestinal Hernia, is an inflammation of the gut, and an obstruction to the passage of the aliment and fæces through it.

"If the disease be recent, and the patient young, immediate reduction, and constant care to prevent its pushing out again, are the only means whereby it is possible to obtain a perfect cure.

"Though the portion of caul should remain uninjured in the scrotum, yet it renders the patient liable to hazard from another quarter; it makes it, every moment, possible for a piece of intestine to slip into the same sac, and thereby add to the case all the trouble, and all the danger, arising from an intestinal Rupture.

<sup>&</sup>quot;The smaller the portion is, of the gut which

is engaged, the tighter the tendon binds, and the more hazardous is the consequence. I have seen a fatal gangrene in a bubonacele, which had not been formed forty-eight hours, and in which the piece of intestine was little more than half an inch.

"Upon the whole, every thing considered, it may be said, that an intestinal Rupture is subject to worse symptoms, and a greater degree of hazard, than an omental one; though the latter is by no means so void of either, as it is commonly supposed to be. That bad symptoms are more likely to attend a recent Rupture, than one of an ancient date; that the descent of a very small piece of intestine is more hazardous, than that of a larger; that the Hernia, which consists of gut only, is, in general, attended with worse consequences, than that, which is made up of both gut and caul: and that no true judgment can be formed, of any at all, unless every circumstance relating to it be taken into consideration\*."

I have, Sir, made quotations from Mr. Pott, on Ruptures in the groin and scrotal Hernias; and will consider femoral Ruptures, which receives its name from its situation, the tumor occasioned

by it being in the upper and fore-part of the thigh. "To understand rightly the nature and situation of a crusal or femoral Rupture, it is necessary to attend to the anatomical structure and disposition of the oblique descending muscle of the abdomen. Whoever does this will find, that that part of it which runs obliquely downward from the spine of the os ileum, towards the symphysis of the os pubis, is tucked down, and folded inward, as it were. This edge or border, so folded in, is called Poupart's or Fallopius's ligament, as if it was a distinct and separate body, but is really no more than the inferior border of the tendon of the oblique muscle. In all the space between these two attachments, this tendon is loose and unconnected with any bone; all the hollow, which is made by the form of the os ilion, between the point of the attachment of the ligament, or tendon to that bone, and its other connection at the os pubis, is filled up by cellular membrane, fat, and glands, which parts are covered, and braced down, by a fine tendinous expansion, communicating between the tendon of the obliquus descendens abdominis and the fascia lata of the thigh.

"Under this tendon, or ligament, the parts composing a Hernia pass, and produce a tumour, on the the upper and fore-part of the thigh. The sac is generally described as passing over the crural artery and vein, which are said to lie immediately behind it; but whoever will examine the state of these parts in a dead subject, will find that this is not a true representation: the descent is made on one side of these vessels, nearer to the os pubis; and the hernial sac; if it be not greatly distended, lies between the crural vessels, and the last-mentioned bone, on which it rests\*".

The truss, applied as usual, in the groin, will generally prevent a descent into the thigh, by compressing the border of the oblique muscle.

frequently found in or between the recti-muscles.

The umbilical or navel Rupture, I now consider, is so called from its situation; and has, like the other, for its general contents, a portion of intestine, or omentum, or both.

"Infants are very subject to this disease, in a small degree, from the separation of the funiculus, (or navel chord); but in general they either get rid of it as they gather strength, or are easily cured by wearing a bandage. It is of more consequence to get this disorder cured in females, even than in

in males, that its return, when they are become adult and pregnant, may be prevented as much as possible. During gestation it is often very troublesome; but after delivery, if the contents have contracted no adhesion, they will often return, and may be kept in their place by a bandage\*."

one side of these vessels, nearer to the os pubis;

I will now consider the ventral Hernia, which, as Mr. Pott says, "may appear in almost any point of the fore-part of the belly, but is most frequently found in or between the recti-muscles. The portion of intestine, &c. is always contained in a sac, made by the protrusion of the peritoneum; when reduced, it should be kept in its place by a bandage, and if attended with stricture, which cannot otherwise be relieved, must be carefully divided †"—by a surgical operation.

I have now, Sir, quoted from Mr. Pott, a plain account of Ruptures. The inguinal, scrotal, femoral, umbilical, and ventral Rupture; to each of which, a palliative cure or suspension of its dreadful effects, may be applied. As to a radical cure, Mr. Pott's opinion has been sufficiently cited.—He says, "that to replace the prolapsed body or bodies within the cavity of the belly, and to prevent their falling out again, by means of a provent

per bandage, is all that the art of surgery is capable of doing in this disease."

"The congenial Hernia, viz. that in which the intestine or omentum is found in the same cavity, and in contact, with the testis, is a species of Rupture much more rare than the kinds of Rupture hitherto described\*." This Hernia is peculiar to MALE subjects; and always happens a short time after birth, or when the testis descends into the scrotum. By much the most common Rupture in FEMALES, is that called femoral or crural, from its situation in the fore-part of the thigh, under Poupart's ligament.

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Mr. Post.

## LETTER III.

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and which at the chare been returned; but

HAVING now, Sir, quoted from Mr. Pott, every information as to the nature of Ruptures, and the mode of treating them, I will now inquire, why Rupture has been such a source of human misery. The peritonæum being either dilated, protruded, or adhering, the opening through which the bowel passes must be stopped by artificial means, viz. an instrument, called a truss. It is from the usual construction and application of this instrument, that its inefficiency produces so much misery and death. In cases which are reducible\*, neither calamity need be the consequence.

Another cause of calamity, is an irreducible Rupture, which sometimes cannot be avoided: but Mr. Pott says, "many, or most of these irreducible Ruptures, become so, by mere time and

<sup>\*</sup> See my Essay, entitled "New Inventions and Directions for Ruptured Persons, teaching them the Art of effectually keeping up inguinal and scrotal Ruptures."

neglect, and might at first have been returned; but when they are got into this state, they are capable of no relief from surgery, but the application of a suspensory bag, to take off or lessen the inconvenience arising from the weight of the scrotum."

What is meant by a strangulated or incarcerated Rupture is, that the intestine or caul, &c. is compressed at its upper part, so as to threaten a mortification, and cannot be returned into the cavity of the belly: it is constricted and bound in the aperture.

Mr. Arnaud thus describes the consecutive symptoms of a strangulation:

These symptoms are to be considered in their beginning, in their augmentation, in their decline. In the beginning the patient instantaneously feels an intense pain, in the part of the abdomen where the intestine is strangulated.

"In the augmentation, this pain spreads by little and little, but by intervals, through all the extent of the belly. In proportion as these pains augment, they are called gripes: the patient has a desire to vomit, which terminates in a copious discharge of thick and glaucous saliva; vomitings succeed the nauseas, and the discharge of saliva.

"The first substance the patient vomits, is his food, if he has any in his stomach; and some time after, he vomits pure bile; the excrements and wind are then discharged by the mouth only, with great pain; then the abdomen is inflated, and extended to the last degree, and a fever comes on, and also an hickup and convulsive spasms.

"In the decline, the pulse becomes intermittent; the patient vomits without efforts; the wind is sometimes discharged downwards; the abdomen becomes flat, and the extremities turn cold. The nose is pinched, and the eyes are fixed and staring: then death approaching, the parts fall totally into a mortification; the gripes, the vomiting, and the hickup cease; the Hernia becomes soft, the abdomen collapses or falls, and the patient dies in a miserable condition, without any possibility of affording him the smallest relief."

As to the operation for a strangulated Hernia, I need not take up your time on that subject, as it concerns only professional men; but the moment a strangulation is suspected to have taken place, the patient should go to bed, and send for a surgeon. A few hours he sitation or delay may be fatal in its consequence!

My first publication describes what a truss ought

ought to be, and accords totally with Mr. Pott's ideas, who says, "It can hardly be necessary to say, that the surgeon should be careful to see that the truss fits, as his success and reputation depend on such care. A truss which does not\* press ENOUGH, is worse than none at all, as it occasions loss of time, and deceives the patient or his friends; and one which presses too much†, or on an improper part, gives pain and trouble, by producing an inflammation and swelling of the spermatic chord, and sometimes of the testicle."

I hope, Sir, these familiar extracts will be of use to ruptured persons.

W. H. T.

As to the operation for a straff plitted Meraia

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<sup>\*</sup> Can a truss, put on obliquely, press enough?—Twenty-five years melancholy experience tells me NO.

<sup>+</sup> Horrid bars of iron, all in one piece, bruising the intestines and loins, &c. &c. which is a very gothic fashion, lately revived:

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pain; she has been evanined by some gentlemen of the factley, who nobly, and immediately,

" NEW INVENTIONS, &c".

respectability.

CHAPTER IX. On the permanent Cure of Ruptures," add,

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in answer to the declarations "that it won't

A curer of Ruptures asked a friend of mine one hundred guineas to cure his complaint; he was to lay in bed six weeks, and live chiefly on one diet: fortunately, the patient knew too much of the world to do as he was desired—"pay before hand"; and after all, his complaint was not of the true rupture kind, as had been erroneously supposed.

The following Cases, among many, I could prove on Oath:

Washerwoman: her truss was unbearably applied in the usual way, and was both painful ful and useless—a truss was applied on my plan: she says she does not now feel her Rupture on any occasion, when the truss is on; she carries pails of water up and down stairs with ease, and without pain;—she has been examined by some gentlemen of the faculty, who nobly, and immediately, adopted the improvements: the fact is also known to a board of gentlemen of the highest fortune and respectability.

In answer to the declarations "that it won't do", and all the CONSPIRACIES against the improvements that interest can suggest, take the following case:

A. B. complained to his surgeon, the truss did not keep up his Rupture, though applied in our new way. I desired to see this man, in the presence of his surgeon: the truss was fixed; he was desired to jump off the edge of a sopha, three feet from the ground, as hard as he could; he did: I desired his surgeon to examine if there was any descent, there was none: he then ran violently to the top of the house, jumped down six stairs at a time; a fresh examination took place, and there was no descent. We had reasons for thinking he had been tampered with. Now this man says, (being driven from every resource), it comes

down when the bowels are emptied—It cannot be; for the more the belly presses forward, the more the truss pulls against it. In a mechanical operation, what succeeds one moment must succeed another.

All trusses should be applied while the patient is in a supine posture; much harm may ensue from the application, when standing up.

I wanted no conviction or proof of the utility and necessity of using the calico cushion, which is to be placed under the pad of the truss; for in a mechanical action, what succeeds one day must succeed another; but I desire to repeat, that very lately at a public Dispensary a surgeon applied this cushion to a ruptured patient, whose truss, without it, was useless and painful, and the Rupture then kept up comfortably.

Postscript. Those truss-makers who condescend to look at the trusses, which my publisher's have the kindness to the world to take the trouble of exhibiting, will please to observe,—The front and back straps are placed about one inch backwarder than usual: on such correct attention, the stability of the truss over the aperture depends.

THE END.

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