PORNEIO-PATHOLOGY.

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PORNEIOPATHOLOGY.

A

POPULAR TREATISE ON

VENEREAL AND OTHER DISEASES

OF THE

MALE AND FEMALE GENITAL SYSTEM;

WITH REMARKS ON

IMPOTENCE, ONANISM, STERILITY, PILES, AND GRAVEL,
AND PRESCRIPTIONS FOR THEIR TREATMENT.

BY R. J. CULVERWELL, M. D.,
Member of the Royal College of Surgeons, Fellow of many Learned Societies.

WITH ONE HUNDRED PLATES.

NEW YORK:
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1844.

PREFACE.

EVERY medical man who will study to investigate as far as possible, in every case, the original channel through which disease or constitutional disorder first found its entry into the system, will be astonished at the mass of human suffering which may be traced up to a venereal origin, although its primary symptoms may have been for years apparently eradicated from the frame. The malady generally commences its attack in early life, before experience has overcome the short-sighted heedlessness of youth, and taught it to look beyond the pains and pleasures of the passing moment. Delicacy or shame will not allow him to seek assistance, until the poison has acquired strength and virulence too alarming to be neglected; and the patient then, instead of applying to his usual professional friends, flies to some empirical practitioner, who temporarily arrests the external symptoms, and discharges him as cured. Thus matters go on, until the malady becomes constitutional; and the patient is at last compelled to place himself under the treatment of those who, at an earlier period, might have preserved his constitution untainted, and his body comparatively uninjured by the ravages of this insidious disease.

Some years ago the idea first occurred to me that a popular treatise, divested as much as possible of technical phraseology, explaining to the non-medical reader the structure and anatomy of the parts primarily affected by the venereal disease, and describing its first as well as its subsequent and aggravated symptoms, and pointing out the safest treatment of it in inexperienced hands, while in its simple form, would be of much avail in counteracting the effects of the complaint resulting from mal-treatment or neglect among the

young and thoughtless. This work is intended to teach him where serious danger exists, or may be apprehended; for the treatment in a great degree, and under any circumstances, must fall upon the patient himself: and every medical man knows that, in very many instances, those who are fully alive to the injury that may arise from such self-management, are yet reduced, by considerations of delicacy and secrecy, to practise it; and it is hoped that a perusal will contribute to give him a knowledge and confidence which he never could acquire from the uneducated empiric. Under these impressions have I ventured to submit the following pages; and while I hope their utility may be acknowledged, I would remark, that they are not intended to supersede medical aid in any stage of the disorder, but that, on the contrary, I would impress upon the reader, if he need it, the prudence of having immediate recourse to a well-educated physician in the earliest stages of the disease, and to beware of advertising quacks. But where, from circumstances which, in venereal complaints, very frequently occur, the party can not have recourse to professional aid, the next best step is certainly to place in his hands a formula of that treatment which is most likely to be successful with himself.

In thus publicly unfolding the mysteries of this department of the profession, I expect some reprehension from those who assume that all medical knowledge should be limited to the regular practisers of the science; but I would fain remind all parties that, although this branch of medical writing has hitherto been in the hands of mercenary empirics, it is equally conducive to the honor of the profession, and the interest of the patient, that these pretenders should be driven from the field. Conscious of my integrity as a regularly educated surgeon, and not altogether destitute of successful practice to rest my claim upon, it is with less hesitation I depart from professional ceremony; and whatever opinion may be pronounced, as to my success in performing the task I have

undertaken, I may be allowed to hope, without arrogance, that I am at least entitled to the praise of industry and humanity.

R. J. CULVERWELL, M. D.

1843.

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POPULAR TREATISE

ON

VENEREAL DISEASES.

GENERAL REMARKS.

THE diseases known by the general term of *syphilis* or *venereal disease*, and arising from impure coition, appear generally in three forms, *gonorrhœa*, *chancres*, and *bubo*. These sometimes exist alone, and sometimes together. As they affect the genital organs and their appendages, a description of these organs is necessary to a full understanding of the subject.

Genital organs and appendages in the male.—This term embraces the *penis*, *testicles*, *bladder*, and *kidneys*. The form of the penis is familiar to every one. It commences at the bladder, is of a *spongy* nature, and is composed of three different parts; the two upper and larger are called the *cavernous* bodies, and the lower the *spongy* body; these bodies are covered by the skin which comes over the head of the penis, and forms the *prepuce*. When this skin is drawn back, the head of the penis, or the *glans* penis is seen, which is a development of the spongy body, and is extremely sensitive. A whitish secretion, with a peculiar odor, forms at the end of the glans, where the prepuce seems to join it. The object of this secretion is to

preserve the sensitiveness of the glans, and to facilitate the withdrawal of the prepuce in coition and in urinating. This material sometimes collects, irritates, hardens, and causes much inconvenience. This can be done away with by circumcision, which is performed as follows:—draw an inked line on the skin of the prepuce, corresponding to the base of the glans penis; draw the prepuce forward, and have the inked part held firmly by an assistant with a pair of forceps. Then the surgeon takes that part of the prepuce projecting beyond the forceps with his left hand, and with a bistoury cuts the prepuce at the inked line with his right. When this is done, the lining skin of the prepuce, which cannot be drawn forward, remains entire, and covers the glans; this lining is divided by a single cut with the scissors: then the flaps are removed round to the frenum, and then the two flaps are held together and removed, with the frenum, at one cut. The mode of holding the prepuce, &c. is seen in the cut.

Described in surrounding text

On the under side of the glans, near the mouth of the water passage, or urethra, the prepuce is attached by a fold called the *frenum*, or bridle, or martingale of the penis. The use of this frenum is to confine the movements of the prepuce, and to draw down the mouth of the water passage to direct the flow of the urine. Sometimes the frenum is too short, and confines the prepuce too much; it may be slit down with a pair of scissors as far as is considered expedient. The frenum is frequently ruptured in a first coition. The frenum is very elastic, and protects the sensitive surface beneath it as the eyelid does the eye. Sometimes, however, it becomes permanently contracted;—the glans is then denuded, but soon loses its sensibility. The person is sometimes born with this formation.

The *cavernous bodies* form two tubes, united in most of the length of the penis, separated only by a thin partition, and enveloped in a firm sheath; they are composed of an immense number of cells, principally formed by dilated veins, which communicate with each other; these, when the penis is erected, become filled and even distended with blood. The cavernous bodies terminate abruptly and form rounded points under the glans penis. At the other extremity they separate, and form the crura or legs of the penis.

The *spongy body* forms the lower and under body of the penis, terminates at one end at the point in the glans, whilst it extends the whole length of the penis, again becomes enlarged, and forms the *bulb*. The urethra or water passage extends through the spongy body, and connects the penis with the bladder. This cut is a section of the penis showing the three bodies:

a. Corpora Cavernosa.
b. The division or Septum.
c. Corpus Spongiosum.
d. Urethra.
e. The great vein of the Penis.

The cut below shows a section of the cavernous body, showing the blood vessels that go to it and cause a distension or erection of the penis:

a. Urethric part.
b. Glans.
c. Dorsal Artery serving the Glans.
d. Dorsal Artery serving the interior of the Corpus Cavernosum.
e, f. Deep-seated Arteries.

a. Urethra.
b. Glans.
c. Dorsal Vein.
d. Septum.
e. Vessels.

In the cut above we see the septum or division of the cavernous bodies, in which are seen the vessels by which, when the erection of the penis subsides, the blood passes into the dorsal vein of the penis.

The *Urethra*, or water passage, is the canal that passes through the spongy body to the bladder. The urine and semen pass through it. It is very elastic, and may be dilated so as to admit a large instrument to be passed into the bladder, and it contracts on the smallest. It is supported in its course by the spongy body and the prostate gland, between which is a portion unprotected, called the membranous portion. The passage varies in its size in different parts: thus it is rather contracted at the orifice, enlarges within, and for an inch again contracts, dilates nearer the bulb, diminishes at the membranous portion and near the prostate gland, and finally enlarges into the bladder. The cut opposite will show these parts.

a. Bladder, or receptacle of urine.
b. Ureters, or passages through which the urine comes from the kidneys, where it is formed, to the bladder.
c. Vas Deferens, through which the semen passes from the testicle, where it is formed, to the seminal vesicles, where it is matured.
d, d. Openings of Ureters into the bladder.
e. Prostate Gland.
f. Orifices of excretory ducts.
g. Openings of the seminal ducts.
h. Ischio-cavernous muscles.
i. Bulb of Urethra divided.
k. Cowper's Glands.
l. Wide part of Urethra.
m. Narrow part.
n. Fossa Navicularis, usually affected in gonorrhœa.
o, p. Prepuce.

The urethra is constantly moistened with a mucous secretion,—from the membrane itself, the glands, and the folds which yield to the pressure of the urine as it flows, or from other altered conditions of the urethra pour out their contents. The inner surface of the urethra is very vascular and sensitive, as is shown by the slightest laceration by the bougie or by chordee, when considerable bleeding often takes place. Its sensitiveness is well known in the first passing of the bougie, or in inflammation, when the pain of the former and the act of urinating in the latter, often causes fainting.

The bladder is the reservoir of the urine, which is formed in the kidneys, comes into the ureters, passages leading from the kidneys to the bladder, and thence flows, drop by drop, into the bladder. The bladder is shaped somewhat like a pear, but this shape is varied by its contents, and the relative condition of its adjacent parts. Thus, when the bladder is full, its upper part may be felt rising above the pubis, that portion of the lower part of the belly that is covered with hair. In very fat persons the bladder is flattened by the weight of the intestines, and obliged to find room where it can, as in pregnant

women. Anatomists, when describing the bladder, speak of its body, base, or upper part, sides and neck, where the urethra or water passage begins, and which is surrounded by the prostate gland. These parts are seen in the first engraving on the opposite page.

The bladder is composed of several coats. There is a peculiar membrane investing the important structures in the abdomen called the peritonœum. The base and back part of the bladder is covered by a portion of this peritonœum, which in a measure supports the bladder in its position, and also exercises certain properties which may hereafter be alluded to.

a. The inner surface of the Bladder, showing the direction of the Muscular Fibres.
b. The opening of the right *Ureter* into the Bladder, whence the urine issues.
c, c. The Prostate Gland cut through, and its sides exhibited.
d. The Urethra.
e. Verumontanum.
f, f. Orifices of the Seminal Ducts, marked by twigs inserted therein; the other points mark the orifices from the Prostate and other Glands.

The position of the *perineum* is seen in the following cuts in which the skin has been removed, disclosing—

1. The superficial fascia of the Perinœum.
2. The fascia lata, or shiny covering of the muscles of the thighs.
3. The tuberosity of the ischia, or part whereupon we sit.
4. The last portion of the spine, called the Coccyx, easily to be felt posteriorly to the rectum.
a. The Sphincter muscle of the Anus.
b. The inferior border of the great muscles of the buttock, called the Gluteal.
c. The Levator Ani, or muscles which elevate the rectum.

The following cut represents the muscles of the perinœum exposed, the superficial fascia having been removed.

1. Point in the Perinœum where the principal muscles arise or meet.
2. Covering of the Thigh.
3. Seat.
4. Corpora Cavernosa of the Penis.
5. Corpus Spongiosum.
6. Coccyx.
7. Great Sacro Sciatic ligament.
a, a. Erector Muscles of the Penis.
b, b. Accelerator Urinæ Muscles.
c. Line whence the above Muscles take their origin.
d. Transverse Muscles of the Perinœum.
e, e. Sphincter Muscle of the Anus, supposed to be distended with tow or wool.
f, f. Levatores Ani.
g, g. Great Gluteal Muscles.

A brief description of the structures displayed in the two preceding and the following drawing (p. 14) will render this part of our subject perfect.

The *Fasciæ* means the coverings of muscles, such as is seen in cutting a domestic joint—a leg of mutton, for instance—a shiny

surface; their use is to strengthen the action of the muscles, to bind them well together, and they mostly exist about the buttocks, back, &c.

The office of a Sphincter Muscle, of which we have several, as that of the bladder and anus, is to keep closed the aperture they surround. The sphincter ani closes the rectum, and pulls down the bulb of the urethra, by which it assists in ejecting the urine and semen.

The Levator Muscles lift up the part they are connected with. The levator ani muscles form the funnel appearance of the rectum, and help to draw it up after the fæces or stools are evacuated. They also assist in sustaining the contents of the pelvis, and help to eject the semen and urine, and contents of the rectum, and, perhaps, by pressing upon the veins, contribute to the erection of the penis.

1. Coccyx.
2. Semen.
3. Covering of the Thigh.
4. Great Sacro Sciatic Ligament.
a. Bulb of the Urethra.
b. Corpus Spongiosum.
c. Crura of the Penis, being the conclusion of—
d. Corpora Cavernosa Penis.
e. Sphincter of the Anus.
f. Levatores Ani, covered by a fascia or prolongation of the triangular ligament of the Urethra.
g. Great Gluteal Muscles.
h, h. Triangular Ligament of the Urethra. The artery of the bulb is seen on the left as it runs between the Crus Penis and bulb of the Urethra.

The Gluteal Muscles help the rotatory motion of the thigh, and give support generally to the buttocks.

The Sacro-Sciatic Ligaments assist in the firm union of the bones of the pelvis.

The Erector Muscles of the penis propel the urine and semen forward; and, by grasping the bulb of the urethra, push the blood toward the corpus cavernosum and the glans, and thus distend them.

The Accelerator Urinæ Muscles, as their name implies, help to eject the urine and semen.

The Triangular Ligament of the urethra assists the preceding purposes.

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Testicles.—The testicles are two glandular oval bodies suspended in the scrotum. They furnish the male seed. They are supported by what is called the Spermatic Chord, which consists of the spermatic artery that supplies the testicle with arterial blood, whence the semen is concocted; the veins that return the superfluous blood, and the tube that conveys the semen to the urethra. The testicles are very liable to inflammation, and particularly to changes resulting from the wear and tear of human life—changes that not simply produce pain or inconvenience, but those whereby the power of the organs becomes partially if not wholly lost. A rather ample description of their complicated structure will show the necessity of attending to the earliest symptoms of disturbance. The testicles, in embryo, are lodged in the belly, but they gradually descend, and usually are found in the scrotum at birth. There are occasional exceptions, when one or even both testicles do not descend, but are retained in the groin. Mr. Hunter considered that their virility was thereby impaired, although such an opinion is negatived by numerous illustrations. The non-descent of the testicle, necessarily from its confined situation when in the groin, can not be so fully developed as where it is allowed to range in the scrotum. It is also exposed to accidents when retained, and cases have occurred where Hydrocele, a disease to be noticed hereafter, has ensued, producing much inconvenience, and occasionally the same has been mistaken for rupture. The testicles have several coats. The Scrotum should be considered as one, which is merely a continuation of the common integuments, exceedingly elastic, nearly destitute of fat, and possessing a peculiar contractile power of its own, whereby it can closely embrace the testicles, and at other times yield or become distended, as in hernia or hydrocele, to the size of a melon. The contractile powers of the scrotum have been assigned to the supposed presence of a muscle, which is merely a thickened cellular membrane, and called Dartos. It was stated that the testicles were suspended by their spermatic

chords—their support is rendered more perfect by the presence of a muscle to each, that descends into the scrotum, and which is called the Cremaster—it is an expansion of one of the muscles of the abdomen, called the internal oblique, and it spreads itself umbrella fashion around the chord, over the upper part of the testicle, and its fibres extend ray-like over the other coats of the testicle—its office is to draw up the seminal organs during procreation.

The testicles, thus suspended, have two coats, one adhering closely, and the other loosely surrounding the former—between the two, a lubricating fluid is secreted, whereby the various movements of the body are permitted without injury; it is between these coats that water is secreted occasionally, constituting the disease known as hydrocele. The closely fitting coat is termed from its whiteness and density Tunica Albuginea—the other Tunica Vaginalis. These coverings are formed of that extensive membrane in the abdomen called the Peritonœum. The Tunica Albuginea which surrounds the testicle previous to its descent, accompanies it into the scrotum, propelling, as it were, the Tunica Vaginalis before it. On the descent of the testicles into the scrotum, the opening through which they passed becomes impermeably closed.

The annexed diagram will explain the coats and facilitate the understanding of subsequent descriptions.

1. Body of the Testicle.
2. Epididymis.
3. Vas Deferens.
4. Spermatic Artery.
5. Veins.
6. Cremaster Muscle.
7. Tunica Albuginea.
8. Tunica Vaginalis.
9. Scrotum.
3, 4, 5, 6, and 8 constituting the Spermatic Chord.

When the coats of the testicle are taken off, it is found to consist of innumerable delicate white tubes, which when disengaged from the cellular membrane that connects them together, and steeped in water, exhibit a most astonishing length of convoluted vessels; they appear to consist of one continuous tube, convoluted in partitions of the cellular membrane. When the *Tubuli* come out from the body of the testicle, they run along the back of it and form a net work of vessels called Rete Testis; it is supposed that by the net work the semen is conveyed from the testicle. The continuations of this *Rete Testis* have been denominated *Vasa Deferentia*, which, ending in a number of *Vascular Cones*, constitute what is called the Epididymis. The *Vasa Deferentia*, after forming three conical convolutions, unite and form larger tubes, which ultimately end in one large excretory duct, called the Vas Deferens. The following description relates to the accompanying sketch.

a. Body of the Testicle.
b. Tubuli Testis.
c, c. Rete Testis.
d. Vasa Deferentia.
e. Vascular Cones.
f. Epididymis.
g. Vas Deferens.

The preceding completes the anatomical description of the Testicle. The semen is supposed to be secreted by the arteries that ramify among the seminal tubes; the last drawing exhibits the testicle as from the hand of the dissector. In life and in health the epididymis is attached to the testicle—the vas deferens passes up the chord, enters the abdomen, and, passing down into the pelvis, terminates in the vesiculæ seminales as already, but to be again, alluded to. The two subjoined drawings illustrate the testicles in their natural situation.

a. Body of the Testicle.
b. Commencement of the Epididymis.
c. End of ditto.
d. Vas Deferens.

In the larger figure the testicle is displayed as enveloped by its coverings, and in the lesser as stripped of them. The references serve for both.

We now come to speak of the Vesiculæ Seminales. It was just observed, that the Vasa Deferentia terminated in these structures. They are attached to the lowest and back part of the bladder, behind the Prostate Gland. The following drawing is the prelude to the description—It represents the Prostate Gland, the Vesiculæ Seminales and the Bladder.

a, a. Prostate Gland.
b. Gland cut away to show the Ducts of the Vesiculæ.
c. Ends of the Ducts.
d, d. Cells of the Vesiculæ.
e. Left Vas Deferens, also cut open to show its connexion with the Vesiculæ.
f. Right Vas Deferens.
g, g. Openings of the Vas Deferens and Vesiculæ into the Urethra.
h. Bladder.
i. Ureter.

The Vesiculæ Seminales appear like two cellular bags. They have two coats, the one called nervous, and the inner the cellular, a membrane divided into folds or ridges. The use of the vesiculæ is supposed to be, to act as reservoirs for the semen; but there are different opinions upon the subject, some contending that they furnish a fluid, not spermatic, but merely as an addenda to the

seminal secretion; whereas others, who have examined the vesiculæ of persons who have suddenly died, have discovered all the essential qualities of the male seed therein; and, in fact, physiologists, who direct researches in these matters, advise such examinations as the surest means of obtaining, in a state of purity, the seminal fluid.

The Male Semen is a fluid of a *starch-ish* consistency and of a whitish color. It has a peculiar odor, “like that of a bone while being filed—of a styptic and rather acrid taste,” (for physiologists use more senses than one in these researches), “and of greater specific gravity than any other fluid of the body.” Shortly after its escape, “it becomes liquid and translucent;” if suffered to evaporate, it dries into scurfy-looking substance. By being examined through a powerful microscope it is ascertained to be animated by an infinite number of animalcules; but they are only present in healthy semen, and consequently that fact is taken as a criterion of the virility of the secretion.

President Wagner thus describes the germe of future animal life: “The seminal granules are colorless bodies with dark outlines, round and somewhat flattened in shape, and measuring from 1-300 to 1-500th of a line in diameter.” “The animalcules exist in the semen of all animals capable of procreation. They are diversified in form in all animals according to their species, but in man they are extremely small, scarcely surpassing the 1-50th, or almost the 1-40th of a line in breadth. This transparent and flattened body seldom exceeds from the 1-6th to the 1-800th of a line in length.”

The annexed drawing exhibits the granules and animalcules of a human male being magnified from 900 to 1,000 times:—

1. Animalcules of a man, taken from the Vas Deferens, immediately after death.
2. Seminal Granules.
3. A bundle of Animalcules, as grouped together in the Testicle.
4. Seminal Globule.
5. Same surrounded by a cyst or bag.

The semen is never discharged pure; it is always diluted with the secretion from the prostate and other glands, and also the mucus of the urethra. A chymical analysis is thus given of 100 parts:

Water	90
Mucilage	6
Phosphate of Lime	3
Soda	1
	100

The semen may certainly be vitiated and diseased: the odor and color assume all the gradations of other secretions when in a morbid condition.

Semen not discharged is supposed to be absorbed, thereby adding to the strength and nutriment of the economy; but as it is furnished for a specific purpose, and its secretion depends much upon the play of our animal passions, and as they are rarely permanently idle, there is not only the inducement that the fluid be furnished, but also emitted, and hence we have nocturnal emissions. These, to a degree, are salutary; but they may happen so frequently that the function becomes disordered and perverted, and in some individuals the semen (unconsciously to them) escapes during sleep, or on the slightest local excitement of riding, walking, or on the action of the bladder or rectum.

The prostate gland, as has been stated, contributes much to the dilution of the semen; it may empty itself independently of it. The gland is composed of numerous cells, from which proceed some twenty or thirty pipes or passages that open in the urethra by the sides of the verumontanum, as shown in the drawing.

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Morbid Secretions and Irritability of the Urethra.—I have stated that clap or gonorrhœa is one of the first and most frequent complaints of the generative apparatus. There are many secretions common to the urethra, such as those afforded by the various glands for the purpose of lubrication, &c.; and the lining membrane of the passage yields a moisture for its own protection, like the membrane of many other organs, such as the eyes, nose, mouth, and so forth, and these secretions may become unhealthy or vitiated, and give rise to symptoms that lead on to confirmed disease; and, what is still more remarkable, may assume many of the characters and appearances of gonorrhœa, but they rarely induce such constitutional disturbances as clap. The symptoms, consequences, and duration of clap, form its distinguishing features from any other discharge of the urethra: it is very important that such distinction should be understood, for the treatment of the two affections differs most materially; the one is an affection of weakness, and the other of an inflammatory and pestilential nature. The symptoms of clap are as follow: there is usually first felt an uneasy sensation at the mouth of the passage or urethra. The patient is frequently called upon to arrange his person; that uneasy sensation sometimes amounts to an itching (occasionally of a pleasurable kind) the feeling extends a little way up the penis; there is oftentimes an erection and a desire for intercourse, which, if indulged in, the sooner develops the disease. The itching alone will not convey the disease from one person to another; but if intercourse be held, the action of the inflamed vessels is accelerated, and a purulent secretion which is infectious is urged forth and emitted with the semen: therefore the very symptom of the tingling or itching, for it rarely exists in healthy urethræ, should be noticed, and intercourse be avoided until it shall have ceased.

About this time is perceived a slight heat on passing water, or at the conclusion of the act; and shortly after, or may be before, a yellowish discharge is observed oozing from the mouth of the glans

or nut of the penis; the symptoms then rapidly advance, unless timely and judicious means be adopted to palliate them or effect a cure; the scalding becomes intense, and the pain and smarting continue some time after each operation of passing water: the discharge becomes profuse and clots on the linen, and continues to ooze out with little intermission: the orifice of the urethra looks red and inflamed, and the glans itself swells and is occasionally extremely tender: the foreskin or prepuce sometimes, but fortunately not always, becomes swollen, and tightened over the nut of the penis, from which it can not be drawn back, constituting that form of the disease known by the name of phymosis. See drawing annexed.

Described in surrounding text

When that is the case, other annoyances ensue; the purulent matter collects around the glans; excoriations, ulcerations, and sometimes warts, are the consequence; the whole symptoms become thereby much aggravated. It also happens that the prepuce from inflammation assumes a dropsical appearance, that is to say, the edges or point swell, and appear like a bladder filled with water; thus, the size which the penis then arrives at is enormous, and to the patient very alarming; it usually, however, subsides in a day or two, if rest and proper measures be employed.

Described in surrounding text

The glans with some people, is always bare, and the foreskin drawn up around it. Such a state may be induced also by disease: in either case, it may become so inflamed as to resist any efforts to draw it over the glans and, from the swelling and consequent pressure on the penis, a kind of ligature is created; and instances

have been known where the most disastrous results have ensued. The circulation of the blood in the glans is checked; the nut puts on a black appearance, and if the ligature be not removed or divided, mortification takes place, and the tip or more of the penis sloughs off or dies away. This state of the prepuce is called *paraphymosis*: it sometimes happens to young lads, who, having an indicated opening of the foreskin, endeavor to uncover the glans: they succeed, but are unable to pull the prepuce back again. They either take no further notice of it, or else become frightened, but conceal the accident they have committed: in a few hours, the parts become painful, swell, and all the phenomena above detailed ensue.

The annexed diagram exhibits the foreskin in a state of paraphymosis.

Described in surrounding text

The next proceeding which will probably be induced, will be an extension of the inflammation to the bladder: the symptoms are a frequent desire to make water, and occasionally ulceration of the membrane lining the bladder follows, when a quantity of muco-purulent matter is discharged, which, mingling with the urine gives it the appearance of whey. Now and then the bladder takes on another form of disordered function: the patient will be seized with *retention of urine*, that is, a total inability to discharge his water, except by the aid of the catheter. A new and most perplexing feature about this stage of the proceeding is perceived: it is what is called *chordee*. The existing irritation excites the penis to frequent erections, which are of the most painful nature. The penis is bent downward; the occasion is, the temporary agglutinization of some of the cells of the *corpora cavernosa* through inflammation, and the distension of the open ones by the arterial blood, thereby putting the adherent cells on

the stretch, and so constituting the curve, and giving rise to the pain. This symptom is frequently a very long and troublesome attendant upon a severe clap; it is more annoying, however, than absolutely painful, as it prevents sleep, it being present chiefly at night-time when warm in bed.

Occasionally the glands in the groin enlarge and are somewhat painful; they sometimes, but very rarely swell and break; they more frequently sympathise with the adjacent irritation, and may be viewed as indications of the amount of general disturbance present; as the patient gets better the glands go down, leaving a slight or scarcely perceptible hardness as it were to mark where they had been. The most painful of all the attendant phenomenon of clap is *swelled testicle*, or, as in medical phraseology it is called, *Hernia humoralis*.

The first indication of the approach of the last-named affection is a slight sense of fulness in the testicle, generally the left first, although occasionally in the right, sometimes one after the other, but rarely both together: a smart twinge is now and then felt in the back upon making any particular movement: the testicle becomes sensibly larger and more painful, the chord swells also and feels like a hardened cord in the groin: the patient is soon incapacitated from walking, or walks very lame; if the inflammation be not subdued by some means, and if the patient be of a “burning temperament,” that is, of a very inflammatory constitution, fever is soon set up, and the patient is laid upon a “sick bed.” There is no form of the complaint so dangerous to neglect as swelled testicles; they have sometimes been known to burst or become permanently callous and hardened, and ever after wholly unfit for procreative purposes: in other instances, they have entirely disappeared by absorption: in fact, all diseases of the testicles interfere with the generative power. At the onset of inflammation there may be a brief increase of sexual appetite, but when the structure of the testicle becomes altered or impaired, that appetite is subdued or wholly lost; there is such a

wonderful sympathy betwixt all parts of the generative economy of man, that if one portion only be injured, the ordinary end of sexual union is frustrated.

The gonorrhœal poison is capable of producing a similar discharge from other parts to which it may be applied besides the urethra. It has been conveyed by means of the finger or towel to the eyes and nose; and a purulent secretion (attended with much pain and inconvenience, indeed with great danger, when the eye becomes so attacked), has oozed plentifully therefrom. Gonorrhœa is an infectious disorder, and consequently is communicable by whatever means the virus be applied. It certainly is possible, and (if we are to believe the assertions of patients, who are often met with, declaring they have not held female intercourse, and yet have contracted the disease), it certainly is not improbable that it may be taken up from using a water-closet that has been visited by an infectious person just before. It may also be contracted by using a foul bougie.

Described in surrounding text

If the gonorrhœal discharge be suffered to remain on particular parts of the person, such as around the glans of the penis, or on the outside of the foreskin, excoriations, chaps, and warts, spring up speedily and plentifully, and protrude before the prepuce, or sometimes become adherent to it, as here drawn: it therefore only shows how necessary cleanliness is in these disagreeable complaints, to escape the vexations alluded to. A species of insect also is apt to appear about the hairy part of the genital organs, and indeed extend all over the body, particularly in those parts where hair grows, such as under the armpits, chest, head, &c., if cleanliness be not observed. They are called crabs. The itching they give rise to is

very harassing, and the patient, unable to withstand scratching, rubs the parts unto sores, which, in healing, exude little crusts that break off and bleed.

A. The Pubis studded with these insects.
B. The Crabs, or Pediculi Pubis, as they are called, about their natural size, as picked from the skin.

When the gonorrhœa has been severe and there has been much constitutional disturbance, there frequently hang about what are called flying rheumatic pains; and sometimes, if the patient's health be much broken up, confirmed rheumatism seizes hold of him, and wearies him out of several months of his existence. I have seen many a fine constitution, by a tedious ill-treated or neglected gonorrhœa, much injured, that, had the sufferer consulted a medical man of even ordinary talent, in the first instance, instead of foolishly leaving the disease to wear itself out with the help of *this* recommended by one, and *that* by the other, he might have shaken off the hydra, and have averted the hundred vexations that follow.

I come now to add to the list of calamitous consequences, stricture, which, in my opinion, prevails to an enormous extent; however, its consideration will be reserved, as well as the affections of the bladder, and prostate gland, for their proper places. I will simply repeat my impression that a stricture, or narrowing of the urethra, or some organic changes, invariably ensue when the gonorrhœa has been mismanaged, or its cure unfortunately protracted.

It is the opinion of many medical men, and it can, no doubt, be borne out by many patients, that a gonorrhœa if unattended by any untoward circumstance, will wear itself out, and that the duration of such a proceeding is from one to two months; there is no disputing

but such has been, and is now and then the case, but such rarely stand even so fair a chance of recovery as to be left entirely alone: even if medicine be not taken, rest, abstemiousness, and such like means, are seldom followed up; either the patient lives gloriously free, or else goes to the opposite extreme.

The cases of gleet which seek medical relief are more numerous, as most professional men must be aware, than those of gonorrhœa, for the reasons so frequently alluded to; the fair inference would be, that a gonorrhœa seldom escapes the terminus of a gleet.

The distinguishing feature of gleet from gonorrhœa is that it is not considered infectious: it consists of a discharge ever varying in color and consistence; it is the most troublesome of all urethric derangements, and doubtlessly helps more to disorganize the delicate mucous membrane lining the urinary passage than even the severest clap. Its action is constant though slow; and subject as we are to alternations of health, of which even the urinary apparatus partakes, it is not to be wondered at that a part of our system which is so frequently being employed, should become disturbed at last, and that stricture and all its horrors should form a finale; but as gleet and stricture form in themselves such important diseases, I shall devote a chapter to the consideration of each separately.

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The Surgical Treatment of Gonorrhœa.—The principal symptoms indicative of the outbreak of a gonorrhœa are a scalding burning sensation along the urethra as the urine passes through it, and also the pouring forth of a profuse discharge of yellow matter from the same passage. The urethra is lined with a very sensitive membrane, fashioned, however, to be insensible to the urine in its natural state; but if the character of the urine or the membrane itself be altered, the most exquisite misery is produced. Now in gonorrhœa, when it is a first attack, the initiatory sensation is invariably heat, itching, or pain in the urethra; the seat of this suffering is in the mucous membrane. On separating the lips of the orifice of the urethra, the passage appears highly vascular, very red, and looks, according to the popular notion, very sore. On examining it with a powerful glass, little streaks or surfaces of a yellow and tenacious matter are perceived, which, upon being removed, are soon replaced by others. When the patient attempts to urinate, this purulent exudation becomes washed off. By this time, the system is somewhat excited, and the urine is consequently more deeply impregnated with uric acid, which renders it more acrid and pungent to the delicate and now tender outlet through which it flows: the sensation is faint at first, but is rendered very acute by the combined worry inflicted upon the urethra, by its muscular contraction to eject every drop of urine, the denuded state of the membrane itself, and the irritating quality of the water. Such, however, is the habit of action, that the urethra in course of time becomes indifferent to the annoyance of the flow of urine. The nervous sensibility is much diminished, and the urethra is further protected by an abundance of the venereal secretion. There are numerous contingencies that prevent the changes ensuing in such order, and, consequently, the scalding, and the amount of discharge, are seldom two days alike. Were there to be no interruption, the inflammation, for such is the whole process in obedience to the animal law, would fulfil its intention and retire; but molested as it is by

diet, exercise, the varied states of health, and numerous other fortuitous circumstances, as we well know, it exists indefinitely. It would be next to an impossibility to explain the process whereby the character of a secretion becomes altered, or to describe the exact changes which the structure or vessels undergo when furnishing the discharge; but we well know that some such changes do take place, and that a cause must precede an effect. In like manner we can ascertain the result of certain experiments, although the *modus operandi* may baffle our penetration. Gonorrhœa is originally a local complaint, but if not arrested, it involves not only the neighboring parts, but it compromises the general health. Now if the same ends can be brought about by artificial means in a few days, that it takes weeks to effect in the ordinary routine, all the intermediate suffering may be avoided, and all the inconvenience of confinement and physic-taking spared.

To cure this disease I find that in many cases, if the parties apply at the very onset of the disease, before the discharge and scalding have set in with anything like severity, and they themselves be not of a very inflammatory temperament, that a sharp stimulating injection will at once subdue the sensitiveness of the urethra and alter the action, and, at the cost of very little, and that only temporary suffering, effect a speedy cure: the mode, except it be by stimulating the relaxed vessels, or owing to the specific action of the injection, is, like all other medical operations, a mystery. A favorite prescription is the nitrate of silver, say one scruple of the nitrate to the ounce of water, but the disease must be thus treated at the very first symptom: the patient must be otherwise in comparatively good health, and his occupation must not expose him to much bodily fatigue. He must not be given to intemperance, nor should those instances be selected where the sufferer is of a very inflammatory constitution. Experience begets confidence, and confidence begets experience. In cautious hands I am satisfied of its usefulness; but

there are cases that turn out failures. I have used the injection when the disease itself was a week old, and with like success; but I am ready to confess I have known cases, the cure of which were retarded by its employment. The inflammation has been temporarily aggravated, but they were cases where the treatment was not appropriate; the disease was far advanced, there was much heat and swelling, and the patient's health was in most instances considerably affected; but yet beyond the few hours' of suffering merely, no extraordinary symptoms were produced. The cure was very shortly after effected by means which I shall presently allude to.

In all cases of suspicious connexion I recommend copious ablution as soon as possible.[1] The syringes I would advise to be used should have their points conically shelved off pear fashion; they fill up the urethra like a wedge, and prevent the immediate escape of the injection: all injections should be retained a few seconds, and then be allowed to flow out. It is seldom worth while to repeat the operation more than twice on an occasion; but that occasion may be resorted to two or three times a day.

When the nitrate of silver is used, the syringe had better be made of glass. The nitrate of silver discolors the skin, linen, &c.; therefore gloves should be worn, and care taken that the fluid be not spilt over the person or dress, but should the skin be stained, it can be removed by a strong solution of hydriodate of potash.

The plan of injection, I must remind the reader, is only applicable in early and old cases. The recent cases, as I have before stated, are less frequently before the medical man than what we may call a "ripe" gonorrhœa. The old cases present also some difference as to the cause of their continuance, and require also some difference in their treatment, and they will be introduced under the chapter headed "Gleet."

The symptoms of a clap, fully developed, are severe scalding, voluminous discharge, painful erections, local inflammation, probably phymosis or paraphymosis, glandular swellings, and possibly swelled testicle.

But all cases of gonorrhœa are not ushered in with such severity; nor do many, if common cleanliness and quiet only be maintained, experience even the various accompaniments just described, and still fewer would if the following precautions and measures were used.

The plan just laid down, may be called the surgical treatment of gonorrhœa; the following may be designated the *Medical*. This is divided into two methods—the one denominated the Antiphlogistic, the other Specific. The *Antiphlogistic* is a term applied to medicines, plans of diet, and other circumstances, that tend to oppose inflammation by a diminution of the activity of the *vital powers*, whereby the inflammation is subdued, and nature rights herself again of her own accord. The *Specific* implies a reliance upon a particular remedy, which is supposed at once to set about curing the disease, as, for instance, by giving Bark in Ague—Colchicum in Rheumatism—Cubebs or Copaiba in Gonorrhœa.

Now, both these plans are successful in curing gonorrhœa; but the majority of medical men adopt the former method, inasmuch as although it but *quietly* conducts the case to a successful termination, still it *does so*, whereas the specific, in unskilful hands, is often productive of many annoyances, much delay, and not always a cure.

Our plan, however, is as follows: in the first place, I take into consideration the appearance of the patient; if he be strong, robust, sanguine, or of full habit, and youthful—if it be his first attack, and if the symptoms be ushered in with any degree of severity, I invariably and rigidly (where I choose not the surgical) pursue the antiphlogistic course of treatment; if the case be in a person of phlegmatic

temperament, of mature age, and the disease be but a repetition of the past, and there be no evidence of physical excitement, I fearlessly adopt the specific. Where, in the third place, I encounter a patient with no very prominent peculiarity, nor with symptoms demanding extraordinarily active measures, experience has taught me the propriety of cautiously combining the two methods—a mild aperient had best always a precede a tonic or a stimulant, in cases where there is a doubt of inflammation lurking in the system; and, recollecting the tendency our complicated organization has, when assailed by a distemper, to become irritable, it is always as important to know when to withhold a remedy as when to prescribe one.

The three following imaginary cases will serve as no inapt illustration of the principles laid down:—

A. B. A man twenty-six years of age, five feet six inches in height, weighing eleven stone six pounds, of a full rounded form—florid complexion, of what is termed a sanguine temperament, and harassed with the following symptoms: profuse discharge in large yellow clotted lumps of gonorrhœal virus—intolerable scalding on passing water—great pain at the rectum at the close of micturition—redness and swelling of the orifice of the glans penis, puffiness of the prepuce, a *vicious* chordee—inclination to headache—a bounding pulse—hot skin, and an anxious mind. Treatment: say first bleeding, then purging; warm bath, saline powders or mixtures, cold lotions to the part, rest, abstinence; the following eve, symptoms will be less severe. Continue the powders, temperance and quiet. In a few days, the discharge will be lessened, the scalding mitigated, the chordee gone, and the fever exchanged for the cool skin of health. The resuscitative powers of nature await only the fillip of some gentle stimulant, and the sick man throws off his mantle for the coronal of health.

B. C. At twenty-three, dark countenance, marked features, well developed muscular form, pulse 66, bilious temperament, accustomed to late hours, hard drinking, and seldom still, and *subject* to clap. Symptoms: plenteous discharge with but little scalding, and no inconvenience beyond the suspension of ordinary sensualities. Treatment: cleanliness, cubebs or copaiba, injections, a black draught, and half a dozen days' rest, release him from his quarantine.

C. D. At nineteen, a timid bashful youth, for the first time infected with gonorrhœa, which he had enduringly borne for the last fortnight, having neglected until now to seek professional aid, although cajoled into the purchase and imbibing

of some popular “never-failing antidote” for a “certain disease.” Symptoms: discharge *cured*? right testicle swollen, and treble the size of the other, and excruciatingly painful; frequent desire to pass water, pain in the groin and back, general lassitude, and a feeling of illness all over. Treatment: leeches, warm bath, bed, purging, fever medicines, cold lotions, hot fomentations, low diet and patience, a month’s imprisonment, and a slow recovery. Had the treatment of the first two cases been reversed, the results would have been very different: and had the last sought timely and efficient aid, he would have been spared much that he endured.

However, to particularize the treatment for each symptom; to commence, I will request the reader to remember that on the first appearance of gonorrhœa, attended with an unusual inflammatory aspect, I practise, where permissible, venesection; if the case demand it not, at least there should be administered an aperient; let, therefore, a dose of opening medicine be taken immediately (Form 1). This is the first step toward reducing inflammatory action—the next should be directed toward allaying the local symptoms, by diminishing the nervous irritability of the urethric passage.

With this view, no plan surpasses that of bathing the penis in warm water, or immersing the entire body in a warm bath. The former should be repeated several times in the day; the latter daily, or certainly on alternate days, so long as the severity lasts.

By these means, the parts will be preserved clean, and will derive benefit from the soothing influence of warmth; and, in many cases, this will be the means of averting chordee or swelled testicle.

Where, however, from peculiar circumstances, warm water and warm baths are not to be had, the penis should be bathed in *cold* water, or encircled with pledgets of rags or lint, moistened with cold goulard or rose-water. Warm, however, is to be preferred, although cold water seldom fails of affording relief.

To lessen the acrimony of the urine, which keeps up the irritability, and somewhat to lower the system, all strong drinks, such as ale, beer, wine, and spirits, should be avoided, and milk, tea, barley-

water, toast and water, linseed tea, gum arabic in solution, and other such mucilaginous diluting liquors taken instead. The diet should be lowered: in fact, a spare regimen should be adopted, not wholly abstaining from animal food, but partaking of it only once in the day, and carefully excluding all salted meats, rich dishes, soups, gravies, &c. The usual employment should be suspended, and rest should be taken as much as possible in a recumbent posture.

Of course the preceding remarks apply only to cases of severity; I mean such cases as first attacks ordinarily prove; and which remarks, if attended to, will greatly mitigate the violence of the disease.

To assist the foregoing treatment, the aperient medicine, which should be repeated, at least, on alternate days, until the inflammation is ameliorated, should be followed by some saline or demulcent medicine to allay the general disturbance. Several formulæ are suggested for that purpose, suitable to various temperaments and conditions—[*See Forms* 2, 3, 4, 5 *in Formulæ annex*.]

By these means, the disease, if not aggravated by intemperance of living, or otherwise, will gradually subside, and in the course of a fortnight or three weeks, cease entirely, without the aid of any other remedy whatever.

But we need not rest satisfied with merely “showing” the disease through its stages; we can expedite it, and many of its steps we can skip over, and here it is we may call to our aid the specific method of treatment alluded to. This specific method consists of the suspension of a vitiated secretion, and a restoration of a healthy one. Now how this is effected we know not; we only know that it can be done—and experience has taught us that it may be done safer at one time than another. During the existence of a fevered state of the circulation, it would be highly impolitic suddenly to check a discharge from any

surface, much less one situated like the mucous membrane of the urethra, in the immediate connexion, as it is, of important nerves and glandular structures—a metastasis of the inflammation will almost invariably ensue; and hence we account for swollen testicles, buboes, painful affections of the bladder, &c. Whereas, on the subsidence of inflammation, the revulsion is borne; and to our satisfaction, the disease disappears. A constitution in a state of excitement is like a fretted child—it will have its “will” out, and the rod is not always the safest corrective.

On the subsidence, therefore, of the scalding, and a lessening of the general fever, the specific plan of treatment may be commenced. Upon the same principle that the surgical treatment is selected according to the symptoms, so also are the just-named preliminaries in many cases dispensable, and hence, as hereafter detailed, it will be found that the antiphlogistic and specific do not go always hand in hand. However, to explain the latter:—

By specifics are meant those remedies that exert a positive curative effect on a particular disease; and the most prominent of those, in gonorrhœa, are copaiba and cubebs. See Formulæ annex for some useful recipes of both—Forms 6, 7, 8, 9, 10.

For instance, cubebs may be taken alone, in water, in doses of a tablespoonful twice or thrice daily. If cubebs produce no good effect in four or five days, it had better be discontinued, and other means sought after.

These proceedings usually carry the disease to a close, and, if no adventitious circumstances occur, successfully and speedily. It is well to deserve success, but it can not be always commanded.

The business engagements of young men render it almost impossible for them to devote that care and attention so importantly requisite; and few, consequently, will be found who will be fortunate enough to escape the usual concomitants of a gonorrhœa.

Where, therefore, the scalding or passing the urine is very severe, the pain may be mitigated by carefully injecting, previously to making water, either of the formulæ No. 11 or No. 12 (see Formulæ annex) into the urethra.

The inflammation extends in general not more than two inches down that passage, so that much force is not required to inject the intended fluid, nor should an unnecessary quantity be used.

When the inflammation reaches the bladder—which is indicated by pain in that viscus and the perinœum, with a constant desire to pass water—the taking of a warm bath at a temperature of 100°, and remaining therein for a quarter of an hour, will afford essential relief.

When a chordee is attendant on a gonorrhœa, and the patient can not sleep, the draught (Form 13) may be taken on going to bed, or the powder (Form 14) in some gruel. The embrocation (Form 15) rubbed on the parts affected, however, will instantly remove both the pain and the spasmodic contraction, and not unfrequently prevent their recurrence. Care must be taken that the embrocation be only used for its specific purpose, and not swallowed by mistake, as it is poisonous.

In the event of the patient being obliged to follow his ordinary occupation, or to go about, the use of a suspensory bandage will be found of great benefit; indeed it is indispensable, and the neglect of it has often brought on swelled testicle, or most excruciating chordee.

By way of recapitulation, the treatment of gonorrhœa thus far consists: in severe cases, of bleeding; in ordinary ones, and in both, of warm bathing, local or general—where impracticable, cold—attention to diet, the taking of aperient, soothing and astringent medicines, rest as much as possible, and the use of the suspensory bandage. These remarks are equally applicable, then, through every stage of this complaint that is accompanied by inflammation, and

may be relied upon as the most effectual to avert all the consequences I now proceed to detail.

The consideration of the symptoms here following is not in the order in which they always occur; for swelled testicle may ensue without phymosis or paraphymosis preceding, or even being present; and the converse holds equally good with regard to every other.

The successful treatment of phymosis (that condition of the foreskin in which it can not be drawn back over the glans) depends very much upon local management. Bathing the part frequently in warm water, the daily use of the warm bath, and the frequent injection, by means of a syringe, of warm milk and water, are generally all that is required to reduce phymosis; but where it is attended with much inflammation, where the glans is excoriated, probably by the discharge from the urethra accumulating between it and the prepuce, and thereby inducing irritation, bleeding is even sometimes necessary, the strictest antiphlogistic regimen should be preserved, and the treatment advised in the early stages of gonorrhœa scrupulously followed.

Sometimes the prepuce becomes so swollen as to assume an œdematous or dropsical appearance; in which case it may be scarified with a lancet, or several leeches applied. With the exception of concealing the state of the glans, phymosis is less dangerous than paraphymosis, and is most usually produced by the patient worrying the part, by frequently uncovering the glans to observe its condition. Where a discharge is perceived oozing from beneath the prepuce, which is not urethral, and the glans does not feel sore or tender, the injection (Form 16) syringed up five or six times a day, will prove very efficacious in healing the ulceration.

Where there is an unnatural elongation of the prepuce, it will be constantly subject to phymosis, not only from gonorrhœal inflammation, but from the accumulation of the natural secretions of

the part. In that case, cleanliness is the only remedy the patient can employ of himself. Occasionally it is necessary to have recourse to the surgeon’s knife.

Paraphymosis is the opposite to phymosis, and usually arises in this way: the orifice of the prepuce, being contracted by the inflammation, is drawn back for the purpose of washing or examination, and is allowed to remain, or, as frequently happens, it can not be redrawn. When this continues some time, considerable inflammation, both of the glans and prepuce, arises. The contracted orifice pressing more tightly, it will often happen that a sloughing of both it and the glans will take place; but this occurs only in consequence of neglect, or in constitutions injured by intemperance.

If seen and attended to early, this state may be removed very easily. The penis should be immersed in a basin of cold water, or sponged, so as to cool it as much as possible; or it may be well oiled. In either case there will not be much difficulty in pressing up the glans and drawing up the prepuce over it; but where adhesion has taken place, or ulceration exists, it will be harder to accomplish: the adhesions must be separated, or the stricture divided with the scalpel.

I need scarcely observe, that such an operation is out of the province of the non-professional person, who should lose no time in consulting his surgeon.

I omitted to mention, in the description of the symptoms of gonorrhœa, that occasionally, in very severe cases, a tumor forms in the perinœum, which, if neglected, proceeds to suppuration, and establishes a fistulous communication with the urethra. On the instant of such a swelling appearing, leeches, fomentations, and poultices, should be applied with a view to disperse it; but the management of such a case had better be intrusted to the surgeon.

Excoriation of the membrane of the glans or prepuce requires for its treatment frequent ablution with warm water until the redness and discharge somewhat diminish, when Form 16 may be resorted to, and applied, if practicable, by a moistened layer of lint; but if accompanied by phymosis, the syringe must be used.

Warts, if not large, are easily removed, by brushing them with the muriated tincture of iron, or the application of a lotion of lunar caustic (Form 17).

Where they are numerous and large, and resist the remedies just recommended, the nitric acid is an excellent escharotic; it gives little or no pain, and is rarely productive of inflammation. The glans, if not naturally denuded (in which instance, by the way, warts seldom accrue), should be kept so for a time; and the nitric acid, after a few moments, washed off with cold water. Notwithstanding, excision is sometimes necessary to their complete removal.

When the organs of generation are infested by pediculi, or crab-lice, the most efficacious and agreeable remedy is the sulphur-bath; one bath generally effecting an extinction of every one of them, even though they be all over the body.

Some recommend shaving the hair off the pubis, the locality in which the vermin are most usually engendered, and applying blue ointment or the black wash. Such a practice is seldom ineffectual, but the irritation attendant upon the reproduction of hair is absolutely intolerable. The hair need not be removed, as the above remedies will be all-sufficient without it. Rubbing the parts well with strong mercurial (or blue) ointment, or the black wash (Form 18), or even powdering them with calomel, will at once destroy the insects, and thereby remove the itching.

Swelled testicle, or *hernia humoralis*, more especially that proceeding from gonorrhœal irritation, is ushered in and discovered in the following manner: The patient, on some sudden movement of

the body, experiences a pain, darting from one of the *testes* (both being rarely affected at the same time) to the loins—the left testicle is the one generally attacked. On examination, he finds that the testicle is rather swollen and full, and very painful on being handled; the swelling quickly increases and becomes hard, which hardness extends to the spermatic chord, presenting the feel of a rope, passing from the scrotum to the groin.

It is remarkable that when swelled testicle occurs, the discharge from the urethra, which, from previously being very profuse, and the scalding on making water, which was very severe, both suddenly diminish, or cease entirely, until the inflammation of the *testis* declines; hence, it has been supposed by some, that the disease is translated from the urethra to the testicle.

It is more probably however, derived from the sympathy between the two; the irritation of the one affecting the other, and the preponderance of inflammation in the testicle acting on the principle of counter-irritation to the urethra, and, for a time, thereby lessening the disease in it: for it is observed that, as soon as one improves, the disease returns in the other. The treatment of *hernia humoralis* must be strictly antiphlogistic. In no form of gonorrhœal disease is bleeding more absolutely necessary.

The timely and prompt loss of twelve or sixteen ounces of blood from the arm will often cut short the complaint, and render other remedies almost unnecessary; while the temporising delay, under the vain hope of the inflammation subsiding, will allow the disease to make rapid progress, and impose a necessity of several weeks' rest and absence from business, before a cure can be effected.

Immediately, then, on the occurrence of swelled testicle, I would recommend the patient to be bled—to take some aperient medicine, and, if the inflammation continues, to apply from twelve to eighteen leeches, and afterward suffer the wounds to bleed for twenty minutes

in a warm bath; to retire to bed or to the sofa, and to maintain a horizontal posture. If he be strong, young, and robust, an emetic (Form 19) may be given previous to the aperient, which has been known to remove the swelling almost instantaneously.

Iodine (Form 20) also possesses a similar specific property in reducing swelled testicle, and may be taken during the inflammatory stage after bleeding and aperients, as may likewise the chlorate or hydriodate of potass (Form 21).

With regard to local applications, the repeated employment of leeches, fomentations, and poultices, with the frequent use of the warm bath, and, above all, keeping the testicle constantly supported by means of a bag, truss, or suspensory bandage, will subdue the disease in a very short time, without impairing the functions of the important organ concerned.

Described in surrounding text

A hardness, however, of the *epididymis* commonly remains and continues during life, but rarely gives rise to any inconvenience, although this may often be remedied by compressing the testicles with strips of adhesive plaster, as seen in the cut.

Almost every case of inflamed testicle will terminate favorably by strictly pursuing the plan proposed; but when, from any untoward circumstance, the inflammation proceeds to suppuration, the case must be treated like one of common abscess, in which event professional aid should be sought for without delay.

Other diseases of the testicle will be treated upon under a specific head.

To return to the treatment of Gonorrhœa:—On the abatement of all or any of the enumerated symptoms, such as the diminution of the

scalding upon making water, the subsidence of chordee, the escape from, or cure of, swelled testicle, phymosis and paraphymosis, warts, crabs, excoriations, &c., the discharge may still continue, though thicker in consistence, and deeper in color: and it is at this period, which I will call chronic gonorrhœa, when all inflammatory symptoms have left, that stimulants may be judiciously given; but it must be borne in mind that relapses often occur from imprudence: and this chronic form requires as much attention as the acute or early stage. (See *article Gleet*.)

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Gleet.—Gleet is certainly, as its name implies, a discharge of thin ichor from a sore. Patients usually understand, and medical men usually allow, a gleet to be a discharge from the urethra, which has existed some time, of a whitish color, unattended with pain, and that is *not infectious*, by which is meant is incapable of producing gonorrhœa. There are several kinds of morbid secretions, the successful treatment of which depends upon a knowledge of their differences. They may be divided into two principal orders—those secreted from the mucous surface of the urethra or bladder, and those which proceed from the various glands-leading into one or the other. Gleet is a term popularly applied to both, but more strictly relates to that which proceeds from the membrane lining the urinary canal. There is great analogy in inflammatory affections between the mucous membrane of the digestive and pulmonary, as well as urinary passages. In inflammatory sore throat, the secretions assume various appearances; there is a discharge of viscid mucus, of purulent matter, or of a thin watery nature; these secretions are dependant upon the amount and duration of the inflammation present. Exactly in like manner may be explained those issuing from the urethra. They are consequently alike modified by treatment, by diet, by rest, and aggravated by a departure from constant care. It is the nature of all membranes, lining canals that have external outlets, to attempt the reparative process by pouring forth discharges, while those which line the structures that have not, effect their cure by union with the opposite surface. It is an admirable provision, else important passages might become closed, and so put a stop to vital processes; and in the other case, accumulations ensue that could not escape without occasioning serious mischief. When, however, disease has existed a long time, the operation of the two kinds of membranes is reversed. The serous,[2] through inflammation, take on the character of abscess, dropsy, or other secretions, and the mucous ulcerate or form adhesions, as evidenced in stricture, or

ulceration of the throat or urethra. Gleet may be a spontaneous disease, that is to say, may arise from other causes than infection. It may exist independently of gonorrhœa, and be the result of cold, of intemperance, and of general or of local excess. Its long continuance and neglect, however, renders it infectious, and it also gives rise to ulceration, excrescences, and stricture: and when, from other causes, ulceration, or excrescences, or stricture, are set up, gleet is in return generally one of their consequences. Gleet, despite these various occasions, is, after all, most frequently a remnant of gonorrhœa; and it is very difficult to define the time or point where the one ends and the other commences. Pathologists draw this distinction between the two:—they say that gonorrhœal discharge consists of *globules*, mixed with a *serous* fluid, while gleet is merely a mucous secretion. I confess it difficult for a non-professional person to decide which is which, the resemblance, in fact, being so great—a gonorrhœal discharge being one day thick and yellow, a few days afterward thin and whitish, and at one time in quantity scanty, and the next profuse. Gleet assumes nearly the same changes. The best test for distinguishing them is, by regarding the accompanying symptoms. Where there is pain on passing water, bladder-irritability, tenderness in the perinœum or neighboring parts, and the discharge plentiful and offensive, staining the linen with a “foul spot,” it may, without much fear, be decided to be clap; but where the discharge is next to colorless, like gum-water, for instance, and where there is no other local uneasiness than a feeling of relaxation, and where it has existed for a long period, and was, or was not, preceded by a gonorrhœa, it may fairly be called a gleet. Now where does the discharge of gleet come from? Let us recapitulate its causes; first from clap, which is a specific inflammatory affection. It may therefore be a chronic inflammatory state of the lining membrane of the urethra, of greater or less extent; in which case we would call it chronic gonorrhœa, and which would be owing to a relaxed state of the secretive vessels. We know that

when a disease exists for a long while, and is one not positively destructive to life, a habit of action is acquired that renders its continuation in that state as natural as its healthy condition. This is the state of the secretive vessels in gleet, arising from gonorrhœa; and hence the discharge is poured forth, instead of the secretion natural to the urethral passage in its healthy order. Secondly, such may have been the severity of a clap, that ulceration of some portion of the urethra may have taken place. The disease may have got well except in that identical spot which, owing to the constant irritation occasioned by the urine passing over it, struggles with the reparative intention and effort of nature, and exists even for years. Thirdly, when stricture is brewing, which will be explained in an appropriate chapter, the alteration going on gives forth a discharge, and, as I have stated in another part of this work, I here repeat, that a long and obstinate gleet, as the slightest examination would testify, rarely fails to indicate the presence of a stricture. Lastly, gleet may be produced by loss of tone in some or the whole portion of the secretive vessels, induced by one or many of the accidents of life, or the various kinds of physical intemperance when they not only weep forth various kinds of fluids, at irregular intervals, which impair the muscular and nervous energy of the generative organ, but render persons laboring under this description of weakness very susceptible of infection, if they hold sexual contact with those but slightly diseased. Hence persons laboring under this form of debility incur what others escape. An individual so circumstanced would receive a taint from a female having leucorrhœa. Very many inconveniences have arisen from this infirmity, giving birth occasionally to unjust suspicions, and creating alarms of the most distressing nature.

Thus, then, we may have gleet from gonorrhœa, gleet from ulceration, gleet from stricture, gleet from debility and discharges, popularly understood to be gleet, but in reality glandular secretions, which will be considered shortly and separately. Gleet is a tiresome

and troublesome disorder. So difficult, occasionally, is its management, that oftentimes the more regularly a patient lives, and the more strictly he conforms to medical regimen, the more deceptive is his disorder. He will apparently be fast approaching to, as he conceives, a recovery, when, without “rhyme or reason,” the complaint recurs, and hints that his past forbearance has been thrown away. It would be dispiriting, indeed, were every case of gleet to realize this description; but it is well known that many do, either from neglect or mismanagement. Now it must be evident that the treatment of gleet depends upon what may happen to be the occasion of it. Where the membrane of the urethra is entire, internal remedies may, and do avail. Copaiba will achieve wonders; the use also of a mild injection, perseveringly employed (as a solution of iodide of iron, or citrate of iron, ten grains to the ounce of water), will give tone and stringency to the weakened vessels, and so correct the quantity, at least, of the secretion. In very obstinate cases, stronger injections, as of the nitrate of silver, twenty grains to the ounce of water, are serviceable; and we are not without many useful internal medical combinations, which, properly administered, conquer this troublesome complaint. In ulceration and stricture, these two causes must be removed, else all efforts are unavailing. In general and local debility, the attention must be devoted to the constitution. Common sense and common reading must give to persons, possessing both, every necessary information. The community are beginning to appreciate the advantages of temperance, air, and exercise, too highly, to need instructions how much of the one or either of the other two are essential to the preservation or recovery of health.

Morbid Irritability of the Urethra.—Of the varied symptomatic sensations, few are more provoking and fretting than some continued troublesome itching or pain that frequently attends the passing of water. There may be no discharge of any kind, but there

is either a constant tingling, partially pleasurable sensation, drawing the attention perpetually to the urethra, or there is felt some particular heat or pain during the act of micturition. These feelings do not always indicate a venereal affection; they appear to depend upon local irritation, perhaps induced by a morbid condition of the urine. The treatment consists in temperate diet, moderatively laxative medicines, and now and then local applications. Some cases yield to sedatives topically applied, and alkalies given internally, while others need local stimulants and specific tonics. At all events, whenever there is an unhealthy feeling in those parts, it points out some altered action is going on, which, if not arrested, is likely to end in stricture or gleet, and therefore attention had better be bestowed upon it as soon as possible.

On Stricture of the Urethra.—Of all diseases of the genito-urinary system, stricture must be allowed to be the most formidable. It is not the most difficult to cure; but it involves, when neglected, more serious disturbances—disturbances which frequently compromise only with loss of life. Stricture is a disease unfortunately of extensive prevalence; and in nine cases out of ten is the sequence of a gonorrhœa; and, what is still more comforting, few persons who become the prey to the latter infliction escape scot-free from the former; not because a clap *must* necessarily be succeeded by a stricture, but simply because it *is*, and all owing to the carelessness and inattention manifested by most young men in the observances so necessary for the perfect cure of the primary disease. One very prevalent notion, and which explains a principal cause of the extension of the venereal disease, is entertained, that the way to give the finishing *coup* to an expiring clap, is to repeat the act that gave rise to it: the disease becomes temporarily aggravated, and the impatient invalid probably flies, from an unwillingness to confess his new error, from his own tried medical friend to some professional stranger. From a desire to earn fame as well as profit, the newly

consulted prescribes some more powerful means; the discharge is arrested for a while, but returns after the next sexual intercourse; a strong injection subdues the recurrent symptom, which only awaits a fresh excitement for its reappearance. Thus a gleet is established. The patient finding little or no inconvenience from the slight oozing, which, as he observes, is sometimes better and occasionally worse, according to his mode of living, determines to let nature achieve her own cure, and for months he drags with him a distemper that, despite all his philosophy, he can not reflect on without an humiliating diminution of self-approval. So insidiously, however, does the complaint worm its progress, that the patient, considering his present state the worst that can befall him, resolves to endure it, since it appears his own constitutional powers are incapable of throwing it off.

In the midst of this contentment, the invalid finds that the process of urinating engages more time than formerly, the urine appears to flow in a smaller stream, and is accompanied by a sensation as though there were some pressure “behind it.” The act of making water is not performed so cleanly as it used to be; the stream differs in its flow, seldom coming out full and free, but generally split into three or four fountain-like spirts, as the annexed drawing displays.

At other times it twists into a spiral form, and then suddenly splits into two or more streams, while at the same moment the urine drops over the person or clothes, unless great care be observed, as witness diagram.

In advanced cases, the urethra becoming so narrow the bladder has not power to expel the urine forward, and it then falls upon the shoes or trowsers, or between them, as observe illustration.

Described in surrounding text Described in surrounding text
Described in surrounding text

Persons afflicted with stricture, and urinating in the streets, may almost be detected from the singular attitude they are obliged to assume to prevent the urine from inconveniencing them, and also from the time occupied in discharging it. Some few minutes after making water, when dressed and proceeding on his way, the patient finds his shirt become moist by some drops of urine that continue to ooze from the penis; and it is only as these annoyances accumulate, he begins to think he is laboring under some other disease than the gleet. The next symptom he will experience will be a positive but temporary difficulty in passing his water—perhaps a total inability to do so; it will, however, subside in a few minutes. This will lead him to reflect, and he will even appease his fears by inclining to think it may be the consequence of his last night's excess: he resolves to be more careful for the future, and he gets better; his contemplated visit to his usual professional adviser, if he have one, is postponed, and a few more weeks go by without a return of the last symptom. The next attack, which it is very difficult to avert, and which is sure to accompany the succeeding debauch, or to follow a cold or fatigue, does not so speedily subside; the patient finds that he can not complete the act of making water without several interruptions, and each attended with a painful desire resembling that induced by too long a retention of that fluid. In that state he eagerly seeks medical assistance; the treatment generally adopted consisting of some sedative, immersion in a hot bath, or the passage of a bougie. Relief being thus easily obtained, professional advice is thus thrown up, and the symptoms are again soon forgotten. Before proceeding further with the more severe forms and consequences of stricture, which may now be fairly said to have commenced in earnest, a brief anatomical description of the urethra may enable the reader to understand how the constriction or narrowing of that canal takes place.

I have elsewhere stated the urethra to be a membranous canal, running from the orifice of the penis to the bladder, and situated in the lower groove formed by the *corpus spongiosum*.

The difference of opinion entertained by some of our first anatomists, on the structure of the urethra, is deserving of notice; for only in proportion to the correctness of our knowledge of it, can we arrive at a just definition of its diseases.

One party assert it to be an elastic canal—whether membranous or muscular they do not say—endowed with similar properties of elasticity to India rubber, or to a common spring. That it is elastic, is beyond doubt; but the mere assertion is no explanation of its mode of action.

Others, from microscopical observations, declare it to consist of two coats—a fine internal membrane, which, when the urethra is collapsed, lies in longitudinal folds—and an external muscular one, composed of very short *fasciculi* of longitudinal fibres, interwoven together, and connected by their origins and insertions with each other, and united by an elastic substance of the consistence of mucus. This is the more satisfactory of the two.

They account for the occurrence of stricture in this way. They say that “a permanent stricture is that contraction of the canal which takes place in consequence of coagulable lymph being exuded between the *fasciculi* of muscular fibres and the internal membrane, in different quantities, according to circumstances.”

A spasmodic stricture they define to be “a contraction of a small portion of longitudinal muscular fibres, while the rest are relaxed; and as this may take place, either all round, or upon any side, it explains what is met with in practice—the marked impression of a stricture sometimes a circular depression upon the bougie, at others only on one side.”

With respect to the change consequent upon permanent stricture, dissection enables us, in some degree, to arrive at the truth. Excrescences and tubercles have been found growing from the wall of the urethra; but in the majority of instances, the only perceptible change is a thickening of the canal here and there, of indefinite length; but whether it be occasioned by the exudation of coagulable lymph, or whether it be the adhesion of ulcerated surfaces, which I contend are more or less present in gleet, is not so easy to determine; at all events, it is undoubtedly the result of inflammation.

With regard to the action of spasm, all we know of it is theoretical; but experience every day furnishes instances of its occurrence.

Spasmodic stricture is generally seated at the neck of the bladder, and may occur to persons in good health, from exposure to wet or cold; from some digestive derangement; from long retention of the urine, particularly while walking, owing to the absence of public urinals; or to violent horse exercise; but more frequently does it happen to those young men who, when suffering from gleet or gonorrhœa, imperfectly or only partially cured, are tempted to commit an excess in wine, spirits, or other strong drinks. Surrounded by jovial society, glassful after glassful is swallowed, each one to be the last. The patient, with his bladder full to repletion, scarcely able to retain his water, yet probably “*going*” every moment, represses his desire until the party breaks up, when, on encountering the cold air, he finds himself unable to void even a drop, or if so, but with extreme difficulty. The greater the effort, and the more determined the straining, the greater is the impossibility, and unless relief should be afforded, the most alarming consequences may ensue.

The rationale is this: the patient, opposing the action of the muscles of the bladder, by contracting those of the urethra, they (the latter), from irritation, become spasmodically contracted.

The urine, by the powerful action of the muscles of the bladder, is forced against the contracted portion of the urethra; and by its irritation increases the mischief. Where neglected, or unless the spasms yield, extravasation will take place, mortification ensue, and death follow.

The urethra is situated at the under part of the penis, and is embraced by a substance called the *corpus spongiosum*; it (the urethra) consists of several different layers or coats—the inner, the one continuous with that lining the bladder, which possesses the power of secreting a mucous fluid, and the other made up of muscular fibres, which give to the urethra the power of contracting and dilating, that regulates the flowing or jetting of the fluid which has to pass through it. The mucous membrane of the urethra is of a highly sensitive nature, and more so in some parts than in others, as, for instance, in the membranous and bulbous portion of the canal; and hence it will be found, that those are the parts most liable to disease. The mucous membrane has several openings called *lacunæ*, for the furnishing a particular fluid to moisten and lubricate the urinary tube: these also are frequently the seat of disease. These are seen in the drawing on page 50.

In passing a bougie in contracted and irritable urethra, it sometimes enters the opening marked B, and if violence be used in propelling the instrument, false passages are made.

Independently of the function of the urethra being to discharge the urine, it has also to convey the semen to the orifice of the glans; and here in this act is to be observed the wonderful adaptation of means to an end. During the excitement attendant upon venereal commerce, the seminal fluid accumulates, prior to emission, in the bulbous portion, and when the fitting moment arrives for its ejection, the membranous portion spasmodically contracts, thereby preventing the regurgitation of the semen into the bladder, while the muscles surrounding the bulbous portion contract with energetic

force, and so complete the transmission of the generative fluid. Such are the functions of the urethra in health.

A—Signifying the urethra cut open.
B—The lacunæ and the cut end of bougie, to show the continuation of the urethra.

Now, this canal being extensively supplied with nerves, that have more extensive communication with others than any particular ones have in the whole body, and made up, as before stated, of surficial and muscular membranes, and exposed to the performance of several duties which are often unduly called into exercise, can not be supposed to be exempt from the consequences of such misappropriation; and therefore it is very liable to inflammation. From the sensitive nature of the tube, it is very obnoxious to spasm, which may be partial, general, temporary, or continuous: hence spasmodic stricture. This condition is of course dependent upon many causes, excess of diet, fatigue, cold, &c., irritating the general system; when from the local irritation previously set up in the urethra by the forenamed causes—a neglected gleet or clap—the urethra is not long in participating in it: the phenomena are the symptoms recently narrated. Highly restorative as the powers of nature may be to remove disease, she does not appear readily disposed to interfere with the processes set up in the machine she inhabits, for self-defence, to protect itself from the constant irritation produced by the daily flow of acrid urine, which in several cases often produces ulceration; coagulable lymph is thrown out in the cellular structure of the particular diseased part, thereby thickening the walls thereof, and constituting permanent stricture, it appearing preferable to impede a function which a narrowing of the urethric canal does, namely, that of urinating, than of allowing ulceration to ensue, whereby the urine

would escape into the neighboring parts, and occasion great devastation, and probably death. Permanent stricture, as its name implies, outlives the patient; *it never yields, unassisted by art*. I have described the ordinary symptoms of stricture, especially that form induced by gonorrhœa. Stricture may arise from other causes. Inflammation, in whatever way set up, if allowed to go on or remain, will give rise to stricture, and the celerity or tardiness with which it takes place depends upon circumstance. An injury from falling astride any hard substance, blows, wounds, contusions occasioned by riding, the presence of foreign substances, the injudicious use of injections, and lastly, which is as frequent a cause as any one of those heretofore enumerated, *masturbation*. The violent manual efforts made by a young sensualist to procure the sexual orgasm for the third or fourth time continuously, I have known to be of that degree that irritation has been communicated to the whole length of the urethra, extending even to the bladder; and retention of urine, in the instance I allude to, ensued, and required much attention before it could be subdued. Excessive intercourse with females will give rise to the same effects; not so likely as in the case preceding, inasmuch as the former can be practised whenever desired, while the latter needs a participator. The act of masturbation repeated, as it is, by many youths and others, day after day, and frequently several times within each twenty-four hours, must necessarily establish a sensitiveness or irritability in the parts, and alteration of structure is sure to follow.

The positive changes which take place in stricture in the urethral passage are these: there ensues a thickening and condensation of the delicate membrane and the cellular tissue underneath, which may possibly unite it to the muscular coat. This thickening or condensation is the result of what we call effusion of coagulable lymph. It will be rather difficult to explain the process; but lymph is that fluid understood to be the nutritious portion of our sustenance or

system, and which is here yielded up by the vessels which absorb it, and which vessels abound, with few exceptions, in every tissue of our body. However, it will suffice to say, that where inflammation takes place, there is an alteration of structure, and that alteration is generally an increase. In stricture, this increase or thickening takes place, as I observed before, in particular parts of the urethra, but where the inflammation is severe, no part is exempt, and whole lengths of the passage become occasionally involved. It is true, certain parts are more predisposed than others, as, for instance, the membranous, bulbous, and prostatic portions of the canal; but there are oftentimes cases to be met with where these parts are free, and the remainder blocked up. This effusion or thickening assumes various shapes, and selects various parts of the urethra. The subjoined diagram will convey a tolerably perfect idea of the malady in question; indeed it is a beautiful specimen of simple stricture.

A—The cut edges of the corpus spongiosum.
B—The urethra.
C—The stricture.

To continue the description of the formidable consequences of neglected stricture.

In protracted and neglected cases, that part of the urethra between the stricture and bladder becomes dilated, from the frequent pressure of the urine upon it, induced by irritability of the bladder, which has an increasing desire to empty itself. In process of time, complete retention of urine will ensue, ulceration will take place at the irritable spot, and effusion of urine into the surrounding parts will follow; and the consequences will be, as in the instance of the spasmodic affection, *fatal*, unless controlled by the skilful interference of the surgeon.

The symptoms of permanent stricture are often as slow in their progress, and as insidious in their nature, as they are appalling in their results, and are seldom distinctly observed by the patient, until firmly established.

He is suffering from a long-continued gleet, and is first alarmed by a partial retention of urine—it passes by drops, or by great straining, or not at all. This usually occurs after intemperance, and is relieved by the warm bath, fomentations, and laxative medicines. This is the first stage, and is attributed to the debauch solely; whereas, at this time an alteration of structure is going on in the urethra. Its calibre is becoming diminished, which necessarily causes the urine to flow in a smaller stream. This is not observed at first; and it is only after a long period that the patient becomes aware of the fact.

The disease proceeds. In the morning, from the gluing together of the sides of the urethra, by the discharge from its diseased surface, the urine flows in a forked or double stream; and then, as this agglutinution is dissolved, it become natural.

There is a greater and more frequent desire to make water, disturbing sleep many times during the night, but unattended with pain, unless the neck of the bladder be affected.

There are also uneasy sensations in the perinœum, a sense of weight in the pelvis, with flying pains in the hips; and in the permanent stricture there is a remarkable symptom frequently prevailing—that is, a pain extending down the left thigh from the perinœum.

As the disease advances, the urine flows in only a very small stream, or forked, twisted, double, or broken, or in drops; and the patient solicits the flow by pressing with his finger on the perinœum, and elongating the canal, somewhat after the manner in which a dairy-maid milks a cow.

The dilatation of the urethra between the stricture and the bladder already alluded to, now takes place; and some urine remains in the dilated part, which oozes through the stricture, making the patient wet and uncomfortable.

There is great difficulty felt, and more time is occupied in getting rid of the last drop of water, than formerly. This sensation continues all along; and the cure is never accomplished until this is finally removed.

If the stricture is still neglected, more severe symptoms come on, and the neighboring parts become affected also.

The *sphincter ani*, or the muscles of the anus, are relaxed, from the excessive action of the abdominal muscles; and the fæces pass in small quantities involuntarily. There is a protrusion of the bowel, which adds to the distress, and, by its irritation, brings on a looseness or diarrhœa.

The prostate gland, which is seated near the neck of the bladder, suffers inflammation and enlarges, beginning at the orifice of the ducts, which open into the urethra.

The emission of semen, which often happens involuntarily, is attended with agonizing pain, producing cold shiverings, followed by heat; and fever soon becomes fairly established.

The liver and its secretions become diseased, discharging in the intestines large quantities of vitiated bile. The fever assumes the intermittent character. The discharge from the urethra is greatly increased in quantity, showing the formation and bursting of an abscess of the prostrate gland into it.

The bladder is much thickened and diminished in size, and acutely or chronically inflamed. The desire to make water is continual, allowing hardly a moment of rest; and the patient, in the agony of despair, prays to be relieved from his sufferings.

Soon succeeding the irritation of the prostate, the testicles become involved, the disease being propagated by means of their ducts, which open into the urethra. The testicles swell a little, become uneasy and painful, and a dropsical or hardened enlargement ensues.

When the stricture forms a nearly complete obstruction to the passage of urine, the violent efforts of the bladder to expel it bring on ulceration or rupture of the urethra, through which the urine is forced into the cellular membrane, with all the power of a spasmodically excited bladder.

The scrotum and neighboring parts become distended, erysipelas supervenes, black patches of mortification break out in different places, the febrile symptoms are augmented, and the patient at last irrecoverably sinks into a state of coma or muttering delirium, and death closes the scene. Such is the progress and termination of stricture when neglected.

The reader, if he be an afflicted one, will eagerly turn to the page wherein the treatment of this formidable and distressing malady is considered; and great will be his satisfaction and delight, on finding it remediable by such simple means, and entirely within his own control; more especially if he direct his attention to the disease in its earlier stages.

He must by no means, however, be too sanguine, from these remarks, or indulge in the idea that as stricture is remediable, it is unimportant when the cure be attempted; the longer the delay, the greater will be the cost to the patient; and, furthermore, the slightest deviation from the instructions laid down, will surely aggravate the disease, and increase the embarrassment of the sufferer.

The following diagrams are further explanatory of the stricture in its amplified forms.

Described in surrounding text

The dark marginal line denote the calibre of the urethra, and the inner lines the actual diameter of the obstructed passage. Figure 1 shows the stricture to be on the lower part of the urethra. Figure 2 the upper part. Figure 3 exhibits a stricture of some length, and a somewhat contracted state of the whole canal. Figure 4 denotes a very common form of stricture, which resembles a flour-bag tied in the middle; it is the least difficult to cure of any, because it signifies that the seat of irritation is limited; but these cases are generally precursory to severer forms, if not promptly attended to. Figure 5 represents a stricture of considerable length, and of course very difficult of removal.

There are many provocatives to stricture, and when once mischief is progressing, it makes up for its slow initiation by giant strides. A patient may have a trifling stricture for years without experiencing much inconvenience. He takes cold, fatigues himself, commits some stomachic or other excess, may possibly have fever, all of which more or less disturb the general economy, alter the character of the urine, and in that manner doubly accelerate the disorganization going on in the urethra. A small abscess may spring up *in* the urethra, or *below* it among the cellular membranes and integuments. In either case, it chances now and then to burst an opening and create a communication externally with the urinary passage, constituting what is called *fistula*. A person laboring under stricture is always liable to these occurrences. As much mischief is done oftentimes by mismanagement as by neglect. The clumsy introduction of a bougie, or, in other instances, the unjustifiable introduction of one, is likely to, and very frequently does, lacerate the delicate and irritable membrane, and make a false passage. Figure 6 exhibits an instance at Nos. 1 and 2; the upper numerical shows a false passage made by a bougie, and an obliteration of the ordinary

passage of the urethra, the result of inflammation, constituting an impassable stricture; the lower figure exhibits a false opening made, in the first instance, by a fruitless effort at passing an instrument, when inflammation completed the process. No urine escaped from it of course, because communication was cut off from the bladder by the impassable stricture; the outlet for the discharge of that fluid being through a sinuous opening marked No. 2, the No. 3 denoting the closed end of the urethra. The case happened to a man in very ill health, who was prone to ulceration, and he gradually sunk under exhaustion from debility and premature old age. Figure 7 exhibits a stricture where the posterior part was enlarged by the constant pressure of the urine to escape through the narrowed part of the urethra; ulceration ensued, and a fistulous opening was the consequence; the stricture was seated high up, and the fistulous canal was several inches long, terminating in the upper and posterior part of the thigh; the urine used to dribble through it as well as through the urethra. The patient had been a seafaring man; he was in exhausted health from hot climates and intemperate living, and he died at last of consumption. I have the parts showing the stricture and the fistulous opening by me, in a state of good preservation. In Figure 8 is presented an illustration of extensive ulceration producing two fistulous openings; the state of the urethra was only discovered after death, the patient having concealed his infirmity for many years; he died suddenly from apoplexy, being found dead in his bed by the people of the house where he lodged. Figure 9 portrays irregular and extensive ulceration. The patient died from syphilis, having gonorrhœa at the same time. I have the preparation. Figure 10 shows an impervious urethra, and a fistulous opening through which the urine flowed. The urinary passage was blocked up within two inches from the orifice, and the length of the obstruction was perhaps a quarter of an inch. It was perforated successfully by the lanceted stilette, and the passage thereby rendered continuous; the catheter was worn for several days, and the false opening soon

healed after a slight application or two of nitric acid. Numerous other illustrations might have been given, but the preceding convey a passable notion of the simplest, and most confirmed, and most severe forms, of the malady in question.

It is melancholy, notwithstanding the resisting and reparative power of nature to avoid so saddening a disease as stricture, that it is so very prevalent, and that it is occasioned by so many causes. Where it is not destructive to life, it is very injurious. It involves, where it is severe, other important organs beside the seat of its abiding; the repeated calls upon the bladder, through sympathy of the irritation, created so near to that viscus, the efforts which at all times it is obliged to make, although assisted by the muscles of the abdomen and contiguous parts to void its contents, at last, and very frequently end in paralysis, and total inability to pass water ensues, except through the aid of the catheter. Independently of which, where so much disease exists as in the urethra, the urine also constantly pressing against ulcerating and irritable surfaces, extravasation of that secretion takes place, and the most formidable and alarming consequences ensue. In the simplest form of stricture, many important functions are disturbed. A very frequent consequence is permanent irritability of the bladder, so that the patient is obliged, ten or twelve times a day, to micturate, and is unable to pass through the night without suffering nearly the same inconvenience. Besides which, the natural sensitiveness of the genital organs becomes speedily and much impaired. I am satisfied that where disorganization of the testicles does not exist, and where the patient is young, or even middle-aged, if he be impotent, he will in nine cases out of ten be found to have stricture. There are exceptions, which shall be named when speaking on the infirmities of the genital system, but in nearly all cases of impuissance there will be found, if not stricture, at least some morbid irritability of the urethra. During the existence of stricture, there is generally a vitiated

secretion from the seat of mischief, constituting a gleet; therefore a gleet at all times should be regarded, lest it be an indication of something more than a mere weeping from enfeebled vessels.

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On the Treatment of Stricture.—Having fully described the symptoms and progress of stricture, I proceed to the more pleasing part of treatment. Stricture, if early attended to, is a disease easy remediable: if neglected, its horrors accumulate, and sufferings the most acute close the scene. Such, however, is the progress of science, that it is almost possible to cure the most inveterate case, at all events to relieve it; but that is no reason why the initiatory notices should be disregarded. Stricture, as must be perceived, is of two kinds, spasmodic and permanent: the treatment of the first is chiefly medical, the treatment of the latter chiefly mechanical. The principal agents I rely upon in the cure of the former, are the warm bath, rest, sedatives, and certain dietetic restrictions; for the removal of the latter, I place unbounded confidence in the practice of *dilatation*; and I am of opinion that the other methods, namely, the application of caustic or the scalpel, might be dispensed with altogether, if the dilating method be not delayed too long.

Before commencing the cure of stricture, I need hardly observe, that we ought to be fully satisfied of its existence. Symptoms are not always unerring guides; and, therefore, our reliance should not wholly depend on them.

——“to be once in doubt
Is once to be resolved.”

The only mode of ascertaining the precise condition of the urethra, is by an examination of it, which should not be delayed a moment after suspicion is entertained of the impending evil.

For this purpose, it is recommended that a solid silver sound should be used as the best instrument; because it will pass with much less pain or inconvenience. It should be made conical, that is, smaller at the point than at the shaft, and of a size to pass very

readily into the orifice; the shaft or body of the sound should not exceed two thirds of the size of the canal. The sound should be warmed, and afterward it should be well oiled. The directions for examining the urethra pertain to the passage of a bougie or catheter; and as it often falls to the lot of a patient, that he is beyond medical assistance, it behooves him to learn how an instrument should be passed, in order that in emergencies he may officiate himself; besides, it often happens, in cases of diseased bladder, and in those cases where retention of urine frequently occurs, that an invalid can not command the necessary constant attendance of his professional man; and therefore such knowledge will well repay any little time or trouble bestowed in the acquisition. The two annexed drawings will render the commonest observer a proficient. The first shows the manner in which the bougie is to be introduced. Where the instrument can be passed thus far, without the assistance of the other hand than that which holds the bougie, it is better, as it keeps the penis and the muscles which influence it in a passive state. When the instrument has passed as far as it will, in the direction the dotted lines denote, it is to be turned gently round, raising the handle toward the abdomen. A slight pressure is then to be made *downward*, and the handle of the catheter or bougie at the same time to be borne away from the body. See diagram. The instrument will, if there be no impediment, gradually slip into the bladder. A trial or two will perfect and surprise the novice. The same directions apply to the introduction and use of all other instruments into the urethra. The sensation experienced on having a bougie passed, partakes more of a strange tickling feeling than absolute pain, except there exist stricture, and even then the urethra, on a subsequent trial, is almost insensible to it.

Described in surrounding text

Described in surrounding text

If soreness or pain is felt, on the sound passing over the affected part, we may presume there is chronic inflammation of the urethra, or that the surface is ulcerated, as in long standing gleet. If the sound meet with an impediment, but proceeds after a little pressure, it indicates a thickening of the mucous membrane, the forerunner of stricture.

I may here observe, that stricture is generally found to exist either within an inch of the orifice, or at about six inches and a half from it, or in the prostate part of the urethra.

If the sound passes, without hinderance, the last situation, but with increased pain, the membrane of that part is diseased, and may extend to the bladder; which will be indicated by the frequent desire to micturate during the night, owing to the irritable state of that organ.

If the instrument be arrested at about six inches and a half, the complaint, in all probability, is seated in the transverse portion of the prostate, and requires very cautious treatment.

When the obstruction is at the very entrance of the bladder, a resistance will be perceived, which, on yielding, will impart a peculiar sensation as the sound enters the bladder. When stricture is thus situated, there is a frequent desire, with almost total inability, to micturate; and when once formed, it is productive of the most serious mischief, unless relieved.

In cases of permanent stricture, the passing of the sound conveys the sensation of going over a ridge. Where it meets with a temporary stoppage, and then passes on, it has probably hitched to a fold of the urethra. Sometimes it will enter the orifice of a dilated follicle; and if much pressure is used, it will occasion considerable bleeding.

The nature and situation of the disease being ascertained, the cure may now be proceeded in, recollecting that no force is to be used, and that too much be not attempted at one essay. Now without entering into an inquiry as to the laws on which *contraction* and *elasticity* of certain animal structures depend, it is enough for our purpose to know, that the urethra possesses both properties; it may contract so as to oppose the exit or entrance of the smallest stream, and it may be dilated to admit the introduction of an instrument an inch in circumference. The urethra maintains these properties in disease as well as in health, and upon the strength of this fact, is the practice of dilatation in the cure of permanent stricture founded, permanent stricture, it will be recollected, is a positive narrowing of the urethric canal; and as it is the nature of all organic diseases to progress, unless prevented by art, it needs no stronger argument than necessity to show how imperative it is to set about their removal.

The cure by dilatation is as follows:—the seat and size of the stricture being ascertained (both of which can be easily done by the passing of the sound as directed, and the observance of the stream of urine), a bougie in circumference somewhat larger than the calibre of the urinary current, warmed and dipped in an oleaginous mixture combined with some sedative (Forms 22, 23, 24) or stimulant (Form 25) according to circumstances, is to be passed to the stricture, and the gentlest pressure is to be employed for the space of five, ten, or twelve minutes, according to the irritation it produces, removing it as soon as any uneasiness is felt.

Even in this very simple operation, a certain dexterity is requisite; for the direction of all urethræ is not alike, and the mere pushing a bougie against a contracted part is not the only likely method of effecting a free passage. Much also depends upon the nature of the bougie—the elastic ones, although assisted in their attempted passage to the bladder, by the smooth and well lubricated sides of

the urethra, have a tendency to straighten; and unless considerable rotatory motion be observed, are apt to hitch in a fold of the urethra, especially if the case befall a person of relaxed fibre, and he be much worn down by suffering. The bougies that I employ are constructed upon an improved plan to those in general use, being prepared of a material that will preserve the shape I adapt them to, previously to introducing them, but at the same time sufficiently soft to yield to any accidental tortuosity of the tube they are intended to explore. The bougie then is to be pressed softly, but steadily, against the obstruction, now and then withholding for a minute the bearing, so as to allow a respite to the stretched membrane; then renewing by, what is better done than expressed, an “insinuating” pressure for the space of the time advised above. The patient should not be dispirited, even if the bougie do not perforate the stricture at the first trial; it would doubtless do so, if longer time were employed, but that is rarely advisable, except in cases where the urine can scarcely escape, or much expedition be requisite. Should the operation even be unsuccessful in this first attempt, the patient will find his ability to micturate much greater than before the introduction; but, save in long-standing and obstinate strictures, I rarely find myself foiled, nor do those who practise the same method, if they have patience and skill enough, in overcoming the difficulty at the first interview. A great advantage of the cure by dilatation, independently of its safety and efficacy, is the insignificant pain it occasions; the sensation produced being only like a pressing desire to make water, which immediately subsides on withdrawing the bougie.

Another method of dilating a stricture, where it happens to be of chronic existence, is the passing a plastic catheter into the bladder, and suffering it to remain all night, or even for several nights, stopping up the handle end with a cork or wooden peg, which the patient can remove when he desires to urinate. The urethra, by this means, becomes quickly dilated, and much beyond the size of the

instrument. It necessarily confines the patient to his room and couch; but where an expeditious cure is the object, as much may be effected in this manner in six days, as by the ordinary method in as many weeks. Time, however, it must be remembered, is the working *material* of nine tenths of strictured invalids, and a week's lay-up may cost a twelve-month's salary—a purchase too dear to be generally incurred.

Several other plausible methods have been suggested for the cure of stricture—one by means of an instrument, that the operator could enlarge when it was passed into the urethra, through turning a screw; another, which was to introduce a tube made of some thin skin, and then to distend it with wind or water; a third, and oftentimes, in reality, a very useful and available one, is to compress the penis around the glans, and suffer the urine, as it accumulated, to distend the anterior part of the urethra before the bandage was removed and the urine suffered to escape. But they have their several disadvantages: the processes, with the exception of the last, are complicated and uncertain in their result; the instrument is not so manageable, or so useful, as an ordinary sound; and the gut, instead of distending the strictured part, enlarges the healthy portions of the urethra. The bougie, in proper hands, notwithstanding it is a simple instrument, is the most positive and effectual method of curing stricture as yet, or likely to be, discovered. An entrance, then, having by this means been gained, a bougie of a larger size is to be selected on the next occasion, and the same process repeated. It is never advisable to repeat the operation oftener than once in two days, and when the urethra is irritable, only every three or four days.

By continuing in this manner, the stricture gradually yields, and a bougie as large as the orifice will permit to enter will at last proceed through the whole passage without meeting any obstacle. The operation, notwithstanding this apparent success, should not be wholly laid aside, but continued until the disposition for contraction is

entirely removed; and the patient should never rest without occasionally examining his urethra, say once a month (at least once a quarter), lest he encounter a relapse.

Having disposed of the treatment of stricture in its fortunately most usual—namely, the mildest—form, I proceed to consider the treatment of severe kinds—previously to which, a few remarks upon the various kinds of instruments, their structure, shape, and size, will render any subsequent allusion more intelligible.

The diagram here introduced represents the calibre of the various bougies in general use, and the observer will perceive, that as they are made to accommodate themselves to the passage they have to pass, how varied must be the changes which the urethra undergoes. The last outline indicates the natural and healthy bore of the urethra. Bougies are manufactured of different materials: waxen cloth rolled together, elastic and yielding; flexible metal, silver, and gold. The bougies which I employ are constructed upon an improved plan to those in general use: the elastic, as they are termed, although assisted in their attempted passage to the bladder by the smooth and well-lubricated sides of the urethra, have a constant tendency to straighten, and consequently are liable to hitch in all the folds they may encounter, which, in relaxed habits, are very numerous in the membranous portion of the urethra. To obviate such a possibility, I prefer that the bougie should be of such a consistence and manufacture as will admit of its preserving the shape I adapt it to previously to introducing it; at the same time the material to be sufficiently soft to enable it to accommodate itself to any accidental tortuosity of the tube it is exploring.

Described in surrounding text

Catheters are instruments for the purposes of withdrawing the urine; they are consequently hollow, and are made of the same materials as bougies; but the most useful and to be depended upon are composed of silver. Surgeons, like other men, have their fancies: a catheter, when made of silver, has very little flexibility; accordingly it must be shaped beforehand. Some medical men prefer them quite straight, others with an immense curve. A surgeon should possess many forms, as the direction of the urethra differs almost in all men. The subjoined exhibits not the size, but the shape of the more useful and those most generally used. Figures 1, 2, and 3, suffice in most instances, whereas figure 4 is necessary in cases of enlargement of the prostate gland, which presses up the bladder, and renders the urethral passage consequently longer.

Described in surrounding text

The French employ not only variously curved instruments, but variously shaped. In peculiar cases they are doubtlessly useful; but they require to be used only by persons of skill and judgment. In the next three kinds are views of such; they are called conical bougies—the first curved, the second straight. They are made of silver, waxen cloth, or India-rubber. The third exhibits a sound, employed to ascertain the seat of the stricture.

I have already alluded to the improved method I employ on finding it necessary to use escharotics. I can not better explain the process than by submitting a sketch of the instruments, whereby the mode of application will be instantly perceived. The instruments are made of silver. The figures represent No. 8 a curved, No. 9 a straightened, No. 10 ditto, with enlarged head, which puts the areola of the stricture on the stretch, and secures the central part for the application of the caustic, or whatever substance may be employed.

The next kind of instruments are for the purposes of dividing or piercing hardened obstructions—one or two applications creating a passage which a hundred *cauterizings* would not effect. When any styptic is applied to a morbid growth, its tendency is to create a slough, or to destroy the part whereto it is applied. In some instances a styptic actually promotes increased action: it may temporarily destroy the part; but the moment the effect is over, a reaction follows, and the excrescence is increased. Such is the case in many long-standing, obstinate strictures; and their removal by perforation or division is rendered indispensable. The practice requires the most careful attention and anatomical knowledge; and no one but a professional man would attempt its employment.

No. 11 sketch exhibits a curved instrument, with the pointed lancet projecting as when applied. No. 12 exhibits ditto, but with a differently formed instrument, consisting of two portions separated, so as to allow a director, in the form of a thin silver wire with a silver knob, to pass for the purpose of exploring the passage which the instrument is to follow and enlarge. It is indispensable in strictures seated upon the soft and deep parts, lest a false passage should be made. No. 13 represents a straight instrument; No. 14 ditto, but with the lancet in reserve—the last a perforator.

The reader has now been made acquainted with the various resources the surgeon has at his command. A few words on their employment will complete the necessary amount of information to render the one as wise as the other. By way of recapitulation, the treatment of stricture is by *dilatation*, *cauterization*, and *division*. They are to be estimated in the order of their arrangement. By dilatation is meant the enlarging of the urethral passage through the frequent introduction of bougies of graduated sizes. It is an operation unattended with any considerable pain; its novelty sometimes renders a patient a little nervous, but a complaint is rarely made after a second or third introduction. Indeed, it is oftentimes courted more

frequently than is desirable. The application also of caustic, or even the perforator, produces scarcely the least inconvenience. Hemorrhage, of most things to be dreaded, is less frequent, with cauterizing and cutting instruments (in skilful hands), than the incautious employment of blunt-pointed bougies.

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Diseases of the Testicles.—The testicles, from their office and connexion with other structures equally as important, are liable to many excitations. In gonorrhœa they are subject to sympathetic inflammation, as in *hernia humoralis*, which, if neglected or maltreated, gives rise to abscess or chronic hardness. Inflammation also occurs in them as in other structures. Accidents, such as blows or bruises, horse-riding, wearing very tight pantaloons, are all fertile sources of derangement. Scrofulous constitutions are predisposed to have their testicles, like the rest of the glands, diseased. The most frequent disturbance, however, of the testicles, is a dilatation of the veins, constituting what is called varicocele; and generally accompanied by a wasting away of the testicle itself. It is rare, indeed, to find perfectly healthy testicles in an individual who has been exposed to amatory pleasures and sensualities; and as, of course, even amative desire, as well as amative power, depends upon the absolute sound condition of the glands in question, the inference is, that in very numerous persons, the sexual instinct is considerably diminished, and not unfrequently wholly suppressed, before half the natural term of their existence has expired, at which time they ought in reality to be at the climax of their prime and capability.

It is not so much a painful complaint, as an unpleasant one. There are occasionally pains in the back and loins, and other feelings, creating a sensation of lassitude and weariness; and now and then some local uneasiness is felt.

Varicocele gives to the examiner a sensation as though he were grasping a bundle of soft cords. It sometimes exists to such a degree as to resemble a rupture. In advanced stages of the disease, or disorganization, the epididymis becomes detached from the body of the testicle, and is plainly distinguishable by the finger. The result of all is, that a considerable diminution of sexual power takes place; and if means are not adopted to arrest a further break-up of the

structure, the venereal appetite will subside altogether. The annexed drawing exhibits a tolerably faithful portrait of the disease; it represents the varicocele to be on the left side—the side most usually affected.

Described in surrounding text

The folds formed by the veins lapping over each other are clearly distinguishable, and the dependent state of the scrotum on the affected side exhibits very well the occasion of it. The treatment consists in giving support by means of a suspensory bandage, which may be worn during the day, and the use of local refrigerants night and morning. The state of health is sometimes mixed up with it; and tonics and generous diet are useful. The cold shower bath helps to brace the system. It is a complaint in which, if it be not of very great severity, nor very long continuance, much good may be done. In some instances the veins may be allowed to empty themselves, which they will do when the body is in a recumbent position, and a coated ivory ring, or a silken band, may be so placed around them as shall prevent their refilling. It is, however, a case fitter for the surgeon’s management.

Abscess in the Testicle.—The testicle is subject to inflammation and suppuration like any other structure. A case about three years ago fell under my notice, where a quantity of dark fœtid fluid was released on puncturing a testicle in which the sense of fluctuation was very evident; and the patient stated that it had been five or six years in arriving at that condition. He was wasted considerably from nocturnal perspirations and acute pain, and his sexual desire was much diminished. The case did well, and the latter function was restored without much loss.

Hydrocele.—Hydrocele is an accumulation of yellow serous fluid in the *tunica vaginalis testis* (refer to the engravings in next page), or peritoneal covering of the testicle. It is a disease incident to every period of life, but more commonly met with in grown persons. The ordinary formation of hydrocele is unattended with pain; and the patient accidentally discovers the existence of the swelling, but oftentimes not until it has attained a considerable magnitude. The tumor, when large, produces an unsightly appearance, and forms a hindrance to sexual intercourse, from the integuments of the penis being involved therein, and thereby preventing a perfect erection of that organ. The disease may appear to originate spontaneously; but it is usually traceable to some bruise, blow, or other external injury to the part.

The two following drawings exhibit the outward and inward appearance of the scrotum in hydrocele:—

The Scrotum largely distended.

The Scrotum distended to its utmost extent, and the position of the fluid shown. The penis is almost always more or less drawn up, and in severe cases it appears drawn up so as scarcely to be perceptible.

The notion that the cure of hydrocele depends on promoting adhesion to the sides of the tunica vaginalis with the testicle is somewhat upset by several preparations in the London hospitals, exhibiting the *tunic* taken from persons in whom a radical cure was effected by injection, and in whom no fluid was reproduced; nor were the sides of the said investment at all adherent with the testicle, but apart, as in the healthiest individual. Hitherto surgeons, acting on the

aforesaid notion, with a view to obliterate the cavity, adopted various plans of treatment—such as, for instance, laying open the entire cavity, cutting away a portion of the tunica vaginalis, the application of caustic, and, lastly, the seton, as advised by Dr. Pott, which was suffered to liberate itself by ulceration. When, in any of these instances, suppuration was induced, the cavity became in time filled up by the granulating process. The plan of the present day is by perforating the sac with a trocar, suffering the effused fluid to escape, and injecting some stimulating liquid which is allowed to remain until a degree of inflammation is produced, that shall cause an obliteration of the cavity by adhesion, or, as it has also been proved, prevent a reproduction of the fluid, by closing the mouths or altering the diseased action of the exhalent arteries. Whichever be the effect produced thereby, the cure is almost certain, and the principles of the treatment consequently judicious. But, notwithstanding, the operation is not always immediately, nor *ultimately* successful; the degree of inflammation set up may be insufficient, and the effusion again take place, and the operation may require a second and third repetition; or an excessive degree of inflammation may ensue, that shall occasion serious constitutional disturbance, either by suffering the injected fluid to remain too long, or its being of too stimulative a character, or from its escaping into the cellular membrane of the scrotum, an accident not unfrequent, unless great care be used in the operation.

Radical Cure of Hydrocele.—The term radical is applied to the process narrated in the last case; but, as has been observed, the operation is occasionally required to be repeated several times. In the case I am adverting to, after tapping, several injections were thrown in between the tunics, and withdrawn; and on one occasion the morbid fluid was secreted to the greatest possible distension of the scrotum by the following morning. Its subsequent withdrawal, and the injection of a more active stimulant, effected, however, a

permanent cure. In the country, surgeons frequently plunge a lancet in the scrotum, suffer the effused liquid to escape, and desire the patient merely to wrap the parts up in a handkerchief, to take no further heed, and to ride home: and these cases generally do well.

Hydrocele Cured by Acupuncturation.—A new method of treating hydrocele has of late years been introduced, namely, by the insertion of a needle into the sac or bladder of the testicle, which, upon its withdrawal, permits the fluid to escape into the cellular membrane, whence it is rapidly absorbed. A pint of fluid may be got rid of in that way in two or three hours; and, although the disease may not be radically cured, it will occupy several months before a reaccumulation of the fluid takes place. In recent cases, this treatment oftentimes proves permanently successful. Many nervous persons will not submit to anything approaching an operation, not even to the simple one of acupuncturation. In such cases, there is no alternative but counter-irritants, to be applied over the part, such as the tincture of iodine, or the following ointment (Form 26).

It is at all times best to attend early to any disease of the testicles; the progress is so rapid, the mischief so great, and the consequences so deplorable, of uncontrolled disease.

Eruptions incident to the Organs of Generation and the Rectum.—The structures included in the above heading are subject to a variety of eruptions, varying in character, intensity, and duration. Thus we have the *papular*, a chronic inflammation characterized by papules, or very minute pimples, of nearly the same color as the skin, accompanied by intense itching, and terminating, when broken by scratching, in small circular crusts: this is called, by dermoid pathologists, Prurigo. Another order of eruption is designated the *vesicular* and *pustular*, and consists of groups of small pimples of a very bright red color, and containing a serous fluid. They are accompanied by itching, which increases as the contained humor becomes turbid, and assumes the puriform aspect; they then

incrustate, and at the end of about a fortnight drop off, leaving the skin healthy underneath. The name given to this variety is Herpes.

The last and most inveterate species is characterized by an itching of the skin, which, on inspection, appears of a diffused redness, and gives off, after a while, a number of thin scales: these reaccumulate, and the entire organs of generation becomes sometimes covered with similar patches: this is denominated Psoriasis. These affections, which are but various degrees of inflammation, modified by idiosyncrasy and habit, arise from local and constitutional causes. Among these are frequent excitation of the organs of generation, the contact of the fluids secreted during sexual intercourse, an unhealthy and relaxed condition of the genitals, and, lastly, a disordered state of the digestive organs. It is astonishing to what an extent these disorders prevail, and more so to find how long the individuals, probably from a sense of diffidence in seeking professional assistance, endure them. I have encountered many patients who have informed me that they have had the complaint upon them from five to ten years, purposing during the whole of that period to consult some medical friend, but postponing it until their interview with myself; and it is the more to be regretted, as the cure may always be effected in a week or two, with moderate attention and perseverance; but if the attempt be neglected, there is no limiting the extent to which the disease may proceed. Local diseases, especially of such a nature as those under consideration can not exist any great length of time without involving the digestive organs, which become sympathetically deranged; and in like manner do local diseases participate with dyspeptic disturbances—each, therefore, goes on aggravating the other.

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Diseases of the Bladder.—The anatomical description of the bladder will be found in the earlier pages of this work. It may simply be restated:

The bladder is a viscus somewhat similar in structure to the stomach. It is composed of several coats—muscular, nervous, and mucous. Each are liable to diseases peculiar to their several structures. The size of the bladder differs in most persons, and in the sexes.

The female bladder is generally the largest; but the largeness is observable more especially in females who have borne children. The proverbial ability of females to retain their urine longer than men is thus accounted for.

Much mischief is often done by both sexes disobeying the particular “call of nature” to urinate; and the younger branches should have that fact impressed upon them. I have known children acquire a severe and obstinate form of irritability of the bladder by retaining their urine too long. Diseases of the bladder are generally the consequences of other complaints, and those complaints have already been enumerated. They may be thus summed up:

Gonorrhœa extending to the bladder, and producing absolutely a clap of the bladder. If the inflammation is not subdued, or does not subside, probably some permanent mischief ensues; at all events, the inflammation extends, and involves other coats than the interior. Accordingly, we have inflammation of the muscular coat, the nervous coat, and, lastly, the peritoneal coat. These terminations, severally, have certain symptoms, and certain names.

There are others, and among them may be named colds, local injuries, hæmorrhoids, excess in drinking particular fluids, sensual indulgences, diseased condition of the kidneys, or long retention or vitiated states of the urine, nervousness, and, lastly, the formation of

stone in the bladder. The most common form of bladder ailment is irritability, which is a milder term for inflammation. Then we have absolutely inflammation, and, lastly, loss of power, or paralysis.

Irritability of the Bladder.[3]—The chief indication of disease affecting the bladder is a frequent desire which the patient experiences to pass his water; but that symptom alone does not determine the nature of the complaint. It may be irritable from sympathy with surrounding irritation, and disappear on the subsidence of that irritation. It may constantly be fretting the patient by its contractions, through the urine (owing to some general derangement in the system, being altered in its chemical qualities) exciting the bladder the moment it is secreted therein; or it may be the result of nervous agitation, with or without any actual diseased state of the bladder. These causes should be understood to regulate the treatment, which of course must be qualified by the provocation, and which the patient, when in doubt, had better leave to the discrimination of his physician.

Paralysis of the Bladder.—The bladder may become, through loss of nervous stimulus, insensible to irritation, and consequently be disobedient to its natural functions. The urine, in these cases, accumulates in large quantities, distends the bladder to its utmost, which it does without pain; and the excess of secretion then dribbles away involuntarily. This state of the bladder is called paralysis, and is an aggravated form of disease, arising from the same causes that establish inflammation, or from some contiguous nervous injury. The treatment of paralysis of the bladder must be intrusted to experienced hands; it consists chiefly of purgatives, stimulative enemata up the rectum, the introduction of the catheter, the cold bath, rest, and general medicinal nervous excitants.

Inflammation of the Bladder.—Cases of acute inflammation of the bladder are of rare occurrence; but they do occur, occasionally prove fatal, and always are productive of much general disturbance, which

yields not without vigorous and active treatment. Gonorrhœa is most usually the exciting cause. On the sudden suppression of the urethral discharge, an inflammation sympathetically seizes the testicle, the glands in the groin, or the bladder; and when the latter is the seat of the transference, it may be held as the ratio of the severity of the disease. In inflammation of the bladder, there is a constant desire to pass water, which, when made, is usually in very small quantities, and leaves a sediment. The patient often experiences an insupportable inclination to urinate, with a sensation as though the bladder were ready to burst—whereas there may be little or no urine in it. There is much pain at the root of the penis, and it extends along the perinœum to the rectum, which latter is assailed with almost constant spasms resembling straining. There is considerable thirst, fever, and anxiety; the pulse is full and quick, the tongue furred, and all those symptoms are present that prevail during severe constitutional excitement. The treatment consists of bleeding, leeching, or cupping; relieving the bowels by castor oil and injections; giving mucilaginous drinks, administering opiates, preserving rest, and total abstinence from stimulating diet. If these means fail in subduing the inflammation it runs on to ulceration, permitting extravasation of urine occasioning mortification and death; but where they are effectual, the patient is soon left free from complaint. It often happens that the inflammation is not so vigorously treated, or it may be wholly neglected, and yet it may happily resolve itself without proceeding to the extremity narrated; but, unfortunately, it may degenerate into a minor but not less troublesome form, denominated chronic, and which, in fact, is the disease christened “irritability,” and the one, for obvious reasons, as above stated, for which relief is most usually sought, the patient having in vain daily looked for the subsidence of his malady. Having stated that irritability of the bladder must be treated with reference to its cause, it is obvious that more than non-medical discrimination is required. Where it depends upon stricture, the stricture must be first cured;

where upon stone in the bladder, the stone must be removed; where upon sympathetic inflammation, the source must be attacked, and so on.

However, it has been stated that other causes may exist—that it may even be a primary disease in itself; and as this treatise professes to be a private mentor to the invalid, I will detail such measures as may be safely adopted for the cure of a complaint as often borne from being trusted to unskilful hands, as from a morbid delicacy in seeking proper and legitimate relief. The ordinary symptoms are, first, an inordinate desire to make water; it flows in small quantities, with pain before, during, and after. The urine has an offensive ammoniacal odor; it deposites a thick, adhesive mucus, of a gray or brown color, sometimes streaked with blood, and of an alkaline character.

In this stage of affairs, rest is indispensable; sedatives and opiates may be given; but alkalies (rarely omitted in prescriptions for incontinence of urine) should not be indiscriminately given, for they only render the urine more alkaline, which occasions it to deposite calcareous flakes, that, if not passed off, accumulate, unite, and lay the foundation of that frightful disease, stone in the bladder. The extract of *conium*, or *henbane*, combined with mucilage, may be given in doses of three to five grains every six hours. The *tincture of henbane*, in doses of a *fluid-drachm*, or the *tincture of opium*, not exceeding *ten or fifteen drops* at a time, may be given in like manner, and continued for several days, keeping the bowels open with castor oil. The daily or alternate daily use of the hot, general, or hip bath, will afford immense relief. The various preparations of *morphine*, *aconitine*, and of *hops*, possess great power in small and frequent doses. The *uva ursi* is a remedy of ancient note, and is often prescribed with advantage; the dose is one scruple to a drachm in milk, or any bland fluid, three times a day, or it may be taken in infusion or decoction, one ounce to a pint of water—that quantity to

be drank during the day. The *pareira brava*, exhibited in a decoction (by simmering three pints of water, containing half an ounce of the root, down to a pint), may be taken in divided doses of eight or twelve ounces during the day, or in the form of extract, in quantity of a scruple, which equals the above amount of decoction.

The *achillæ millefoliæ* is an excellent plant, and possesses astonishing astringent powers, often restoring the tone of the bladder to a healthy condition, when all other remedies have failed. A handful of the leaves are to be infused in a pint of boiling water, which, when cool, may be poured off, and given in doses of a cupful three times a day. Any of the preceding sedatives may be given in conjunction with these preparations.

Lime-water taken with milk, as an ordinary drink, is a useful corrective.

The *buchu* (the *diosma crenata*)—an ounce infused for several hours in a pint of boiling water, and a wineglassful of the cooled liquid administered three or four times a day—has justly obtained some notoriety.

Where all these means prove ineffectual, the injection of sedative and astringent applications often answers the most sanguine expectations; but they should be employed only by professional persons, and even then with great care; as when the disease has been at its height, and they have been used, much inconvenience, and even mischief, has been occasioned. A mild infusion of poppies, or weak gruel, may be thrown in, once or twice a day, in quantities not exceeding two or three ounces at a time, and withdrawn after being suffered to remain thirty or forty seconds. A catheter, with elastic bag, should be the instrument used.

In the more chronic forms, where the urine does not deposite much mucus, or is tinged with blood, the addition of ten drops (*very gradually* increasing the quantity) of the diluted nitric acid may be

made to the fluid injected, repeating or declining the operation, as the effects are discovered to be advantageous or prejudicial.

In an irritable state of the bladder depending on some disease of the kidney, there is a frequent desire to void the urine without there being any, or but very little, urine in the bladder. There is also a severe cutting pain felt about the neck of the bladder, especially after each effort to make water, followed or attended by a “languid” pain in the loins. The urine is often the color of whey, at other times tinged with blood, and deposites, when suffered to remain a while, a purulent sediment. The severe symptoms should be allayed by the same remedies as prescribed in irritable bladder arising from other causes; but the original seat of the disease in this instance demands energetic attention. The various counter-irritants are in great requisition; leeches, blisters, setons, &c.

In addition to the tonics and astringents already advised, an infusion of the *wild-carrot seed*, made by macerating for a couple of hours one ounce of the seeds bruised in a pint of boiling water (drinking, when cool and strained, the whole of the liquid in divided doses during the day), may be taken with every chance of relief. As in the other infusions, the patient must persevere in the use of this for some time.

ORIGIN OF THE VENEREAL DISEASE.

THE reader will allow that it can not be for want of materials to produce a book, that this subject is introduced, as the multifarious nature of this work's contents will readily testify; but it is briefly to explain certain probabilities and conjectures which the afflicted curious are generally desirous of being satisfied upon. Who ever suffered under syphilis but was solicitous to know how such a plague came into the world? Many moralists believe and insist that it is a specific punishment, sent for our physical transgressions. Philosophically speaking, such it is; because the infringement of any natural law always incurs a penalty. However, if it be a manifestation of divine displeasure, it certainly is most unequally apportioned; for it generally happens to the least licentious, instead of the most depraved—the timid, scrupulous, and nervous man, contracting it on the first loose intercourse, whereas the man of the town revels almost with impunity; and, lastly, he who exercises the greatest caution and cleanliness escapes it altogether, although he may be the most deserving of the infliction. In a state of timorous excitement, we are more apt to catch the latent mischief. The careless, thoughtless libertine, hardened against infection by indifference, free living, and probably strong health, often escapes scot-free; and the cool and calculating pleasure-hunter, who exercises those useful antagonists to disease, namely, ablution and selection, comes off triumphant with still greater certainty.

The point at issue is, when the disease first arose, and where. Medical historians give credit to America, Spain, and France, for its propagation; and controversies have been carried on by various parties, each disclaiming the honor. Now, as I do not propose to

analyze the authorities, but simply to venture my own opinion, with the reasons for the same, I have no alternative but to refer the reader, if he be dissatisfied with my attempted exposition, to more comprehensive and elaborate conjectures than my own. Starting upon the proposition that nature's laws are unalterable, and believing that fever is, and has been fever since the creation of the world; that a cut finger has healed by the first intention, or has *festered*, and ever may do so—each condition being modified by the state of health of the party, and the nature of the wound; that a broken limb was attended with the same consequences in the year 1 as it will be in the year 1900; and that dirtiness generated itch, and does so still: I can not reconcile myself to any other belief, but that any violation of the laws whereupon sexual intercourse has been permitted, has been, is, and will be, attended with corresponding results; and as such violations most likely exist where numbers cohered together, I consider both gonorrhœa and syphilis to have been coeval with the origin of mankind. They both doubtlessly are much modified by climate, habits, and constitution; and therefrom ensue the many modifications we see in Europe, and the other large portions of the globe. The proofs that can be adduced in favor of this hypothesis are interminable.

It is said that, until the arrival of some British sailors at Otaheite, the disease was unknown in that territory. Possibly, in its present modification; but previously to this new intercourse, it is most probable that the sexual cohabitation was not so promiscuous or frequent, and that that very infringement entailed a new form of irritation. In married persons, of even temperate passions, and of most careful habits, local sexual disorders are of frequent occurrence, the slightest derangement of female health giving rise to vaginal disturbance, that unsuspectingly is increased by the marital embrace, and communicated to the husband; and only from its presence does it occur, that the coitus may have been the cause of

it. By attending to the simple suggestion of nature, namely, abstinence, cleanliness, and rest, a cure is effected; but where neglected, or should either party be unfaithful to the marriage vow, the disease becomes magnified, and extended to, mayhap, innocent parties.

The next question is, are gonorrhœa and syphilis identical? Certainly not, any more than the very many modifications of generative sores. It is absolutely, now-a-days, a difficult question to solve, whether this or that be syphilis; so numerous and yet so closely in resemblance are the ulcers that ensue after sexual cohabitation. The eye is not to be trusted, because so different is real from spurious syphilis that the French surgeons decide the point by inoculating a healthy portion of the body with the matter or discharge from what they suppose to be a syphilitic ulcer. If a corresponding ulcer be produced, the disease is decided to be syphilis. If, on the other hand, no result follow, the patient is proclaimed free from that malady, and stated to be laboring under merely common local irritation. What is still more curious is this: a patient will have ulcers, which every medical man will pronounce, on beholding, to be chancres; yet, upon this trial, the inoculation will not evince them to be so. A while after, supposing the chancres to be healed, secondary or other symptoms will show themselves—sore throat, spotted skin, glandular enlargements, or painful joints, follow. The same consequences oftentimes ensue after gonorrhœa. The primary diseases can not be identical, because the symptoms are vastly different, and the parts attacked are also unlike; and yet there is this anomaly, that the after-consequences frequently closely resemble each other.

Another surprising result from loose intercourse is, that one female will convey to this individual gonorrhœa, to another syphilis; a third will escape scatheless, and a fourth will have a modifiable affection of both diseases. A satisfactory exposition of the why and wherefore

such things should be, or are, is I fancy beyond the skill of pathologists. It is enough to know that they happen; and it is better to use those means which past and daily experience furnishes to get rid of them, than to ponder and wonder in the vain endeavor to explore their origin.

In giving an opinion that we have always been liable to fever, to cut fingers, and to syphilis, I am ready to admit that these several conditions depend upon the varied states of health of the parties. The fevers (ensuing upon the ill-ventilated places) of olden times, compared with those of the present day, differ in intensity and frequency, because the causes are neither so numerous nor severe. The cut finger of a drunkard, and one of otherwise feeble health, is more likely to fester, and even mortify, than should the accident befall a temperate and healthy individual; and the syphilis (or diseases simulating it) at the present time is less severe than formerly, owing to greater attention being paid to personal cleanliness, and the simplicity and earliness of the treatment.

A question worthy of inquiry is, why gonorrhœa and syphilis should be infectious? *Contagion* is a word that many medical men would expel from worldly usage, not believing in its existence; that is to say, the extension of a fever or epidemic, for instance, is not traceable to the disease seizing the individual, but to the peculiar aptitude of the party to become the recipient of it. Consumption is of the most extensive prevalence; but it only occurs in the delicate—those peculiarly formed, or rendered apt for it, from the circumstance of their lungs being hereditarily feebly constructed, or disordered through inflammation following a cold, and which effects are traceable to an infraction of some of nature's laws. Sickly children owe their condition to their sickly parents, or to their physical mal-education, or some other positive violation of nature's regulations; and in like manner, where the fire rages or the wind blows, the feeblest and least protected become the earliest victims. Both

gonorrhœa and syphilis furnish a remarkably irritating purulent fluid, which, applied to delicate surfaces, produces certain effects. Experiments have not been made to multiply these effects, beyond those incurred by sexual freedom; and the one of inoculation by the French surgeons, as quoted; but accident has proved that the eye, for instance, puts on, after contact with the discharge of gonorrhœa, the same kind of inflammation as follows its contact in coition with the antagonist generative organs.

The rectum has also been the seat of venereal affection; and instances have been known of the mouth being also the recipient of disease communicated by a deposition of the poison. If there be such a thing as contagion, it certainly exists in the venereal disease; for, although I admit it (the disease) may occur spontaneously, or be generated by half a dozen of each of the sexes herding and cohabiting together, and neglecting the duties of cleanliness, or committing excesses, those very circumstances imply that the disease can be extended, notwithstanding a majority of the careful and hardy may escape, after a risk of the same. The fact of its contagious properties is not upset, because escape is owing to the non-susceptibility of the parties, and the caution they exercise to prevent a lodgment of, or contact with, the poisonous matter.

John Hunter observes, that it is only the developed disease that is communicable, and for the propagation of venereal affections the *poisonous secretion* must be deposited. So confident was he of this, that he even permitted married men having gonorrhœa to cohabit with their wives, to save appearances; care being taken first to clear all the parts of any matter, by syringing the urethra, then making water, and, *lastly*, washing the glans. Such, however, is my belief of the rapidity of the formation of the secretion, that, aided by the excitement of the generative act, the deposite of the same would necessarily take place with the seminal emission, especially in

persons of full temperament, and in the plenitude of the sexual appetite, and thereby be liable to communicate the disease.

It is becoming a prevalent fashion to give new names to the several forms of venereal disease, such as substituting “urethritis,” “blenorrhagia,” &c., for gonorrhœa; and even to syphilis are added “tertiary symptoms;” the names quoted being selected to express more symptoms than the old ones conveyed. I consider that this circumstance tends to support my opinion—that gonorrhœa and syphilis are not identical, and that each disease (the former being distinguished by urethral discharges, and the latter by ulcers and other cutaneous disfigurements) has innumerable varieties. I hold them both to be but modifications of inflammation from a poisonous source, and its consequences common to the structures in which they respectively become seated, and differing in degree according to the severity of the attack. Another proof in support of the last assertion is, I think, the time of the appearance of the particular disease. There is certainly a more usual time for a clap to manifest itself, such as from the seventh to the ninth day; but it very often occurs within twenty-four hours after connexion, and syphilis sometimes as early; and instances occur where weeks elapse before either of the forms shows itself.

Briefly to recapitulate, I consider, then—1. That the generative organs have ever been liable to disease from misuse; that the disease is variable and modifiable by many circumstances, such as have been before stated—namely, climate, age, constitution, and cause. 2. That it is contagious; mild cases usually producing mild consequences, but those depending much upon the treatment and health. 3. Newly-indisposed and severer cases, establishing a worse form of disease, alike modifiable by circumstances. I am not prepared to insist that the syphilis of the present time assumes the aspect as it did with the ancients, any more than I would affirm that it will be the same centuries hence: but I contend that all abuses of

sexual pleasures will be surely followed by sexual disturbances, and that the most likely form of ailment is marked either by discharges or ulceration; that these diseases are simple or complicated, and all are separate in themselves. There is no fixed order in which what are called secondary symptoms occur. It may more usually happen that a sore throat will follow the healing of a bubo, as swelled testicle is more commonly subsequent to the occurrence of a gonorrhœal discharge; but in very many cases neither occur, or not in the succession stated. The anomalies in the disease I shall consider in describing the symptoms and treatment, when the reader will judge how far the view herein entertained, as to the origin and character of the disease, facilitates and simplifies its management and control.

In conclusion of this part of our subject, I may state, that I believe the form and severity of any syphilitic disease depend more upon the state of health and other aptitudes of the party receiving, than of the one communicating the disease.

Of the Character of the Syphilitic Poison.—"The venereal poison is only known by the *action* which follows its application." It has been observed, that it is only communicable by deposition; and that certain parts are essentially prone to its reception: these are the generative apparatus of both sexes. The poison is conveyed in the form of a purulent fluid; that of gonorrhœa from inflamed vessels with corresponding morbid action; that of syphilis, also from a purulent fluid emanating from the surface of an ulcer. The disease prevails only in the human race; it is impossible to transfer it to animals of a lower kind. John Hunter soaked lint in matter from a gonorrhœa and chancre, and introduced it into the vaginæ of bitches and asses without producing any effect. The same experiment was tried by interposing the purulent matter within the prepuce of dogs and male asses, and also by inoculation, but with no other effect than that of producing a common sore. The venereal poison attacks the human body in two ways, locally and constitutionally; the latter by absorption

of the poison secreted by the patient himself. We can only suppose the local form of the disease to arise from absorption, and so altering the local action of parts as to produce specific results. The constitutional form is generally an after-occurrence, although instances are known where it has not been preceded by any apparent previous form; albeit, no doubt such *has* existed without exciting observation. Gonorrhœa shows itself without abrasion of surface; but syphilis is marked by another action—an ulceration of the solids whereon it is found.

In Hunter's Work on the Venereal Disease, there is an interesting chapter respecting the source of the gonorrhœal secretion, in which it appears that it is produced from the vessels investing the mucous membrane of the urethra, by their becoming altered in their action; and that ulceration is seldom found within the urethra, and when so discovered, it is not from the gonorrhœal poison; and that where ulceration occurs, it must be ascribable to an accession of inflammation of a distinct character. Both gonorrhœa and syphilis are conditions assumed by the human frame in self-defence, and are processes set up to cure the previous one; and unless the constitution be much impaired, the disease gets well. Such impediments, however, exist in the form of moral and social arrangements, occupation and variable health, that the end, without assistance, is seldom accomplished. Gonorrhœa may cease of its own accord; but, according to the belief of Hunter, syphilis never; and certainly every day's experience proves the fact. We see gonorrhœa cured by the most ignorant persons and by the most empirical measures; but syphilis often defies the most skilful treatment. The first attack of venereal affections, especially gonorrhœa, is the most severe; from which it is presumed that a habit of reconciliation takes place between the disease and the generative organs; so that after a recurrence or two of the complaint, the same party may almost bid defiance to a new infection. Yet, if a

man lose the habit obtained by frequent intercourse, through abstinence from venereal pleasures, he will be very likely to contract the disease even on the first re-essay, with the very same parties, who may preserve precisely the same condition of health that formerly was innocuous to him. Cases innumerable can be adduced in support of this statement. In the first part of this book, statements have been made, proving that the difference in the symptoms of gonorrhœa are almost endless. The same may be anticipated with regard to syphilis.

OF SYPHILIS.

SYPHILIS is another and a more violent form of the venereal disease than gonorrhœa. All its effects and symptoms are divided into two conditions, *primary* and *secondary*; the former being those which arise either from the direct application of the virus or poison to the part where the ulceration first shows itself, or from the irritative and specific effects of the poison on the absorbent vessels and glands, as it is passing through them on its way to the circulation.

Hence, among the first—the primary—may be classed the *ulcer*, or *chancre*, which in almost every instance is situated on the parts of generation, and may or may not be followed by a swelling in the glands of the groin, constituting that form of the complaint called *bubo*.

The secondary symptoms may be defined to be all those effects of the disease which take place subsequently to, and in consequence of, the absorption of the poison into the system: comprising sore throat, cutaneous affections—both eruptions and ulcers, pains in the bones and joints, and swellings thereon, called *nodes*.

I will first consider the symptoms of primary syphilis—*chancre* and *bubo*.

The coverings and linings of the body differ according to their situation. The former, the integuments become hardened by exposure and exercise, and preserve their velvety softness where protected by clothing, and where they are subject to less use—instance the hands, feet, face, and abdomen. Certain functions are assigned to each. The covering of the feet takes on a horny hardness, and in like manner the hands of a laborer assume a glove-

like protection. The abdomen, by being constantly clothed, preserves its soft texture. The lining membranes of the body have also separate offices to perform—the *serous* and *mucous*, as they are called. The *serous* is a name given to those lining the cavities; the *mucous*, to those having outlets. From the glans penis being generally covered by the prepuce, the parts in contact are called mucous. It differs, however, in sensitiveness, from the urethra. The entire covering also of the penis is of a very delicate and tender structure; and hence also, from sexual intercourse, these parts become the chief seat of syphilis. Gonorrhœa confines its attacks to mucous membranes, or, in other words, secreting surfaces. In fact, the matter deposited on the common and exposed skin is harmless; so also, but to a less degree, is that of syphilis. Gonorrhœa is frequently seated *on* and *around* the glans, and the inner surface of the prepuce; but more frequently, by a hundred fold, *within* the urethra. The delicate surface, then, of the glans and prepuce, losing some of its sensitiveness by frequent exposure, and losing also the defence of the secretion which mucous membranes pour out, becomes accessible to an occurrence of syphilis—a disease that is readily communicable, by inoculation, to almost any part of the body. To quote Hunter, he says: “It is an invariable effect, that when any part of an animal is irritated to a certain degree, it inflames and forms matter, the intention of which is to remove the irritating cause. This has been before stated; but it is common only to secreting surfaces; and when the same cause is applied to non-secreting surfaces, ulceration is set up. This is not only the case in common irritation, but also in specific cases, as in syphilis, burns,” &c.

It is somewhat difficult to explain how a chancrous sore is produced. Surmises are at our service, and those which are founded upon certain facts are the more likely to be true. For instance, a person receiving syphilis must contract it from another individual having it. The mere solitary act of coition will not spontaneously

produce it, provided the party be clean, for that surely is not an excess; but having connexion with an infected one, and thereby exposing a healthy surface to a diseased one, becomes an infraction of one of nature's laws. Well, the patient contaminating the other must have a chancre, which giving off, by contact, its morbid secretion, produces a specific result, namely, a small pimple.

In men, the disease is generally contracted upon the frænum, glans penis, or prepuce, or upon the common skin of the body of the penis, but most frequently upon the interior. From the peculiar and alterable structure of the penis and its prepuce, the poison, unless well washed off, is apt to lodge in the folds thereof, and sooner or later it manifests its influence, which may occur in twenty-four hours, or may be withheld for months. Generally, however, seven or eight or nine days puts the patient out of suspense. The first symptoms consist in an itching, succeeded by a redness of the part, out of which is soon observed to spring up a small elevation or pimple. In connexions where haste, disproportion of size, or much excitement or excess prevails, an absolute abrasion of the skin often takes place, and the parts where such occur are generally the everted portion of the prepuce, or the frænum of the same.

Described in surrounding text

Described in surrounding text

The accompanying drawings represent the extent of the redness and the first appearance of the pimple. The upper diagram alludes to the irritation and excoriation around the frænum, and the lower, the first evidence of a chancre. I am describing the most common form of chancre, such as is known in the profession as Mr. Hunter's chancre. A perceptible hardness next ensues round the pimple,

which becomes more elevated when it ulcerates, or, in other words, the head gets broken off and a little hollow is left. The tumor (for such it may be called) is generally of a limited circumference, seldom exceeding the size of a silver penny, unless in an advanced stage of the disease. When a chancre attacks the frænum, and undermines it, as it were, the frænum is often destroyed; and of course, with its destruction, departs its property of controlling or of directing the orifice of the urethra in urinating, or in the emission of the semen.

Described in surrounding text

This drawing exhibits three ulcers: one on the prepuce, another under the frænum, having eaten its way through, as marked by the black cross-line, and the third situated on the glans.

When the pimple appears on the outside of the prepuce for instance, it assumes generally a larger form, and, as the head is broken off, crust after crust rises up, until the process of ulceration has very far advanced, or the applications that are generally employed prevent its re-formation. In the former instance, the crusts are attributable to evaporation of the discharge; in the latter, their absence is already explained by the prevention of the same. There is such a thing as sympathy in eruptive disorders. In skin affections of the corners of the mouths of children, we often see the inflammation cross from corner to corner. The same is observable where the attacks comprise the angle of an eye. So is it with the penis, a structure equally as delicate; and accordingly the edges of the prepuce often put on a jagged appearance resembling chaps on hands.

Described in surrounding text

Witness the above wood-cut. It portrays an ulcer somewhat diffused on the prepuce, and the ragged edge of the same structure. The sketch just introduced was taken from a patient perhaps only a fortnight old with the disease. Being a rackety, dissipated young man, and regardless of the treatment suggested, a week's neglect produced the following alteration:—

Described in surrounding text

A new ulcer sprung up, the old one increased in size, and the entire edge of the prepuce became involved in the irritation.

Phymosis and paraphymosis occur in syphilis as they do in gonorrhœa. The treatment is the same in both. Warm, soothing applications are indispensable; and occasionally, to prevent adherence between the glans and prepuce, the scalpel must be had recourse to. I have already expressed my conviction that the progress of the disease rests as *much* or *more* upon the condition of the party receiving it, than the specific property of the complaint.

"If the inflammation spreads fast and considerably, it shows a constitution more disposed to inflammation than natural; if the pain is great, it shows a strong disposition to irritation. It also sometimes happens that they begin very early to form sloughs; when this is the case, they have a strong tendency to mortification. Bleeding is also a consequence owing to exposure of the ulcered *corpus cavernosum*."*—Hunter.*

The reader will recollect that it has been stated that chancres, like the many symptoms of gonorrhœa, differ in their characteristics. Quoting from authorities, and, as will be further illustrated, the following may be taken as the summary of the most prominent appearances:—

The ordinary chancre is characterized by a hollow centre, a hard and ragged edge, a yellow surface, with a deposite of tenacious matter, and a red and inflammatory margin. There is also a hardness felt at its base on taking the part up between the fingers. This has already been shown; but as illustrations multiply, the possessor of this publication, especially if he be an invalid, will recognise the annexed. It exhibits the ordinary chancre on the inner part of the prepuce, the glans, and the orifice of the urethra—no unfrequent seat of chancre.

Described in surrounding text

Many ulcers assume a very indolent form, and remain quiescent for a long period. One patient I knew, who consulted me for rheumatism, and who disavowed ever having had syphilis. He took vapor baths, which assuaged the pain, but did not remove it. Accident discovered to me the existence of a sore on the penis, by observing the dressings of the same, carefully placed on the corner of the mantel-piece in the bath-room. The following was the appearance of the sores. He had endured them for nearly three months, nor had he perceived much alteration, either for better or worse. The disease was properly healed, and he soon got well.

Described in surrounding text

Another kind is one denominated the superficial, with raised edges. It is more frequently seated at the upper part of the prepuce, and creating a thickening of it, ending in phymosis, which lasts a long time after the cure of the ulcers. This kind of chancre is sometimes very obstinate, and continues many weeks. The following illustration portrays its presence near the edge of the *corona glandis*.

Described in surrounding text

There are two other kinds of sores called the *phagedenic* and *sloughing* ulcers and chancres.

The phagedenic is a corroding ulcer without granulations. It is also destitute of any surrounding induration, but frequently its circumference is of a livid red color. When the disease is injudiciously treated, the whole of the penis will be destroyed in a very short time. The absence of coloring detracts from a faithful representation of the kind of sore just alluded to. The drawing is sketched from Mr. Skey's work on Syphilis.

a—The ulcer.

Another and more confirmed specimen from the same authority is presented. It represents the *sloughing* ulcer.

a—The ulcer on the prepuce.
b—The ulcer on the penis.

I have witnessed the sloughing, or, in other words, the loss of the entire top of the glans and prepuce, within half a dozen days. The subjoined drawing (overleaf) represents a tumefied state of the penis, ulceration on the glans surrounding the orifice of the urethra, phymosis of the prepuce, and ulcers in different stages on the outside thereof. The sketch was taken from Wallace's work. Such are often met with. Chancres, as before stated, often become irritable, spread rapidly, and slough, more particularly in persons of

intemperate and dissipated habits, or when the case has been improperly treated; and openings into the urethra are formed to a considerable extent, sometimes to the destruction of the glans, or a portion of the penis.

Described in surrounding text

The illustrative companion to this paragraph exhibits an ulcer that has wormed its way through the prepuce, as marked by the black line.

Described in surrounding text

Warts are often met with, as in gonorrhœa, and, like those, will arise from simple local irritation, from the accumulation of the natural secretions, or want of cleanliness. They are hard and soft, and require different treatment accordingly. They are not contagious; that is, they do not communicate a venereal affection, but they very readily produce a similar disease in parts they come in contact with. The story is here well told by the engraver’s aid.

Described in surrounding text

It often happens that the ulceration appears checked. A tumor (see next page) will form, and the surface will look very red and angry—will even yield a moisture, and finally disappear. I say finally, because it frequently proves very obstinate, and trespasses upon the patience and forbearance almost to induce despair. It usually is very irritable, the itching being most troublesome. The illustration was taken from a patient who had been an invalid several months.

a—The tumor.

After a certain time, varying in proportion to the virulence of the disease, the poison is conveyed by the numerous absorbents (which run from the penis) to the glands in the groin, one or more of which become inflamed and enlarged, producing that well-known swelling, already alluded to, called *bubo*. Ulcers, too, are sometimes situated within the urethra, as is seen in the annexed cut.

Described in surrounding text

OF BUBOES.

SURGEONS apply the word bubo to inflamed glands from syphilis, wherever they happen to be. The body abounds with absorbents, which are small delicate vessels that form a net-work over the entire surface, and exist also in every structure. Their purpose is to convey the nutriment to the circulation. They form *stations*, as it were, or points of assemblage; and these are generally situated in the angles of the body—the groin, the armpits, hams, neck, &c.—parts most protected from injury. When skin inflammation is present, to familiarize the meaning, the nearest glands sympathize and swell; as, for, instance, who has escaped a swelling, at one time or other of his life, in the neck, throat, or armpits? When a sore prevails on the penis, or a gonorrhœa exists, there most frequently ensues an enlargement of the glands of the groin. The result of that enlargement depends upon the nature of the inflammation. In gonorrhœa it is merely temporary, not being sufficient to provoke suppuration, or the formation and discharge of matter, or very rarely so; but in the case of venereal ulcers, where the inflammation is so conveyed, the escape from such consequences is as seldom.

The mode which nature adopts to transfer the poison is as inexplicable in its operation as the production of a swelled testicle. Buboes (herein meant), then, are—or I should say a bubo is—a specific inflammation of the glands of the groin. It usually occurs on the same side of the body as the ulcer is situated; but when the ulcer is seated on or under the frænum, there seems to be no fixed rule which side shall have the honor. Another peculiarity is, that they more readily spring up from ulcers on the prepuce than on the glans, and are more attributable to ulcers than merely inflamed surfaces.

They do occur sometimes without either being apparent. To facilitate the clear understanding of what we are talking about, a drawing is presented of the inguinal glands, and the absorbents leading to and from it, which conveys but an imperfect idea of the number of the absorbents; but it serves to show the nature of them, and their mode of communication.

Described in surrounding text

Glands become inflamed from other causes than syphilis; a scratch, a bruise, or any local irritation, will occasion an enlargement of the nearest set of glands, or at least one of them. Scrofula is a specific cause. As the venereal poison carries with it its morbid nature wherever it happens to be conveyed, the glands become infected with it; and hence it is the more readily transferred to the system at large. Very frequently and fortunately the disease terminates *in* the glands; that is to say, does not extend to the circulation at large. The time that intervenes after absorption has taken place, before bubo manifests itself, is as uncertain as that of chancre appearing after connexion; but generally the party is safe a fortnight after the entire disappearance of the chancre. Where it is otherwise, some trace of irritation on the glans or prepuce is discoverable upon close investigation, or it will follow great fatigue, venereal excesses, &c. If the disease extend to the constitution, it rarely affects other glands than those primarily attacked; and hence it is rare that more than one gland becomes inflamed. Having given the received notions of the cause, the symptoms should next be described.

No person can be unaware of the approach of a bubo. There is seldom much advance of a swelling without pain, which latter may be said to attract the patient’s attention to the part, when a tumor,

possibly the size only of a horse-bean, is discovered. If the swelling be venereal, it rapidly increases in size. It is at first moveable, but soon feels as though firmly fixed. There is next experienced inconvenience in walking. If the disease proceed to suppuration, a continued throbbing is felt in the part, which also swells, assumes a diffused redness, and at last an evident sense of fluctuation is perceived. It may be ushered in with a shivering fit. The skin becomes thin and tender, and a conical point protrudes, which, unless punctured, bursts and emits its contents. It is astonishing what immense destruction of parts takes place in large buboes. The theory how solids become converted into fluids—how muscle, fat, and cellular membrane, become absorbed, and a thick purulent secretion deposited, is fitter for a work addressed exclusively to medical men than to the public; and it therefore must suffice that such happen, and few persons are ignorant of the fact; but the *modus operandi* may at best be but the subject of conjecture.

The artist's graver has pencilled a faithful picture (see next page) of the appearance of the disease in question. On the right side is represented a bubo that has broken, or discharged its contents, and which is in a state of healing; on the left side a bubo ready to burst; and, by way of economising space, the left testicle is exhibited in a state of varicocele, by no means an unfrequent accompaniment to the previously narrated condition, but at the same time by no means a necessary attendant, it being a totally distinct affection. Buboes present more varieties in their size, and duration, and consequences, than they do on their initiation. Cases in corroboration will be found in their proper place.

Described in surrounding text

ON LUES VENEREA, OR SECONDARY SYMPTOMS.

SECONDARY symptoms are those changes which occur in consequence of the admission of the venereal poison into the system, or common circulation at large. The introduction to the disease of bubo explains the mode of inlet. Like gonorrhœa and primary syphilis, it is often a very complicated complaint. Secondary symptoms are admitted to occur without being preceded by any primary form, as, for instance, by immediate absorption unattended with the irritation which accompanies chancre, or attendant upon bubo; but where one secondary affection arises without the primary, at least many hundred arise subsequent to it; and unless, in the latter instance, treatment, and vigilant too, is adopted, not one in a hundred escapes them.

Lues venerea (a synonymous term with syphilis) is supposed to be imbibed from a very sensitive glans penis, a simple abrasion of the skin of that organ, an ordinary ulcer, or it may be transferred by inoculation. The late John Hunter is certainly the most eminent authority—the *vade mecum* of professional men. In these matters he was a man of indefatigable perseverance and untiring observation. Few new lights have been thrown on syphilis since his time, except on the treatment, which has become wonderfully simplified.

In thus again adverting to Mr. Hunter's name, it is chiefly to observe, that the basis of my own thoughts and practice has been built upon his writings; and therefore, in being thus explicit in describing syphilis and its multitudinous varieties, the reader is assured that what is here written is, at all events, well founded, and not compounded of the many new adventurising propositions of the

day. Mr. Hunter considered that contamination took place about the beginning of the local complaints; that no person was safe from lues while the original sore was present, and not under treatment; but that, if the seeds of lues were not already implanted in the constitution, the consequences might be averted by treatment. Children are born infected with lues, which they derive from their parents; for instance, a man laboring under secondary, or primary symptoms, cohabits with a healthy female, the female *may* escape both diseases, but the child may inherit them.

Instances have been known of children so infected, conveying the disease to the wet nurse, to whose care they may be removed; and, like other infectious disorders, the complaint may be diffused *ad infinitum*. There is an impression abroad, that, like consumption, healthy persons are obnoxious to the breath and perspiration of the afflicted; but, as in many other conjectures, corroboration is wanted to prove the fact.

Syphilis is divided into primary and secondary; but modern pathologists add a third stage, called tertiary symptoms. Hunter used to divide lues into two orders; the first was the most frequent form of the complaint, after chancre and bubo; the second, the remaining symptoms. The former consisted of the affections of the skin, throat, nose, mouth, and tongue; the latter, the bones and their coverings, called the periosteum and the fasciæ of muscles, as explained in the preliminary part of this publication. Lues does not always exhibit itself according to this arrangement; which circumstance explains that the occurrence is more owing to conditions of health, and peculiar tendencies of the structures involved to receive the contamination, than to any properties of the animal poison.

He considers, also, that the development of the disease depends much upon the state of weather, and the care the patient may bestow upon himself; cold being a formidable predisposer to the extension of secondary symptoms, and that the parts least protected

are generally the first to become diseased. Hence the throat usually exhibits a morbid action before the skin, furthermore, upon the cure of the more superficial parts of the body; and, therefore, suddenly suspending treatment, the symptoms manifest themselves in the deeper seated. The deduction from this statement is, a necessity for especial care in the clothing of the body, and the continuance of the treatment some little while after all external evidences of the complaint have disappeared.

Mr. Hunter considered that the disease may be engrafted in the constitution, and remain dormant for a considerable period, through the parts not being brought into action by any of the aforementioned causes. Ordinary illness, simple fever, excess, fatigue, and a host of other occasions, may excite a particular structure into a morbid condition, when the hitherto dormant disease will sprout out. His arguments are supported by numerous cases wherein *several years* elapsed between the primary and secondary symptoms, although no new infection was contracted in the intermediate time.

Mercury was Mr. Hunter’s sheet-anchor; his faith in it was to the effect that it would cure every stage of the disease, but that one course of it, although it might cure chancre, would not prevent secondary symptoms. They might not occur, because the poison may not have been carried into the circulation; and in like manner the second stage of the disease need not be followed by a third. But he considered that, when the several forms of the disease betrayed themselves, their origin must be traced to a general contamination of the system at the same time.

OF THE SYMPTOMS OF THE FIRST STAGE OF LUES.

Six weeks is the time usually allowed to elapse between primary and secondary symptoms; but it is not invariably the case, instances having occurred where the disease has embraced, and most severely, both stages in a fortnight, and others between which a much longer time has existed. The first symptoms of lues consist either of a sore throat or a spotted skin. When the skin is the seat, a red spot, not unlike a flea-bite, is perceived; the color soon dies into a brownish or copper-colored hue. Occasionally, at the outset, a small pimple is observed, which breaks and scurfs; the coppery-colored spot next feels rough, and a kind of scurf will exude that after a few days falls off to make way for more. The disease being more usually slow than rapid in its progress, weeks may be consumed before ulceration occurs, and merely a discoloration of the skin is seen in spots seldom exceeding the size of a sixpenny or fourpenny piece. Some of these spots will nearly disappear, leaving a faint scar, and new ones will spring up. The entire body may be covered with them, but usually those parts nearer the centre of circulation generally possess the most—such as the chest, neck, shoulders, arms, wrists, hands, and head. As the disease progresses, the scurf on the spots accumulates, falls off, re-forms, getting thicker each time, when upon being detached, for they cling now more closely, a sore and moist state of the skin is observable. This may be covered with a new crust, or may at once proceed to suppuration.

When an ulcer is formed, it will sometimes spread rapidly, and embrace a patch the size of a crown-piece, when the process of ulceration will assume the vigor of disease.

Described in surrounding text

The accompanying sketch portrays, perhaps, more the seat of the disease when attacking the upper part of the body, than the appearance; for to give a true portraiture, the drawing should be the size of life, and colored after nature. It is, however, I doubt not, sufficient to exemplify the site of the disorder. The eruption is smaller on the face, and less vicious, generally, than on the body; but it proves most unsightly, and indicates great advancement of the disease. The legs (see next page), and those parts of the skin least vascular, assume a mottled appearance resembling recent bruises; at other times, clusters of spots like grapes hanging together.

The shoulders, arms, and wrists, also present a somewhat similar appearance; though perhaps not to the same extent, owing to being more warmly clad, and less in exercise, than the lower extremity.

When the disease extends to the hands, it is marked by exfoliations of the palm, with occasional deep cracks that cause much pain. Nor are the fingers and nails exempt from this encroaching malady, which, during its occupation, shows itself by a redness under the nail, that at last ends in the destruction of the nail.

Described in surrounding text Described in surrounding text
Described in surrounding text

The head, also, is a frequent seat of the disorder. It is generally discovered by running the hands through the hair, when a little crust will be detected by the fingers, or a slight itching will show its position, or the brush may break it off. The top and hind parts of the head are generally the situations selected. Occasionally the hair will fall off, leaving spots of a smooth baldness.

Described in surrounding text

The vital organs, fortunately, are never subject to syphilitic inflammation—such as the brain, the viscera of the chest, and abdomen; nor is even the mucous membrane of the interior of the body affected, its power being confined solely to those parts or structures subject to the influence of external causes.

When the venereal virus attacks the throat or palate, the membrane of the roof of the mouth becomes red and inflamed, patches ulcerate, and, if not cured, sooner or later expose the bony palate, which may be felt by the probe. This is the first stage. The exposed bone next exfoliates, and a communication is thereby formed between the mouth and nose, the fluids return through it, the voice is changed into a nasal twang, and a most offensive discharge is secreted.

Described in surrounding text

This drawing represents ulceration of the tonsils, uvula, and arch of the palate; also the edges of the tongue. The drawing, p. 102, shows the under surface of the tongue, the inner part of the lower lip, and the lower gums affected with venereal ulcers.

When the tonsils are attacked, ulcers appear, precisely similar in character to chancres, hollow in the centre, with raised ragged edges, yellow on the surface, with a livid color on the surrounding margin. A sense of dryness is perceived, extending up the eustachian tube to the ear. Sometimes the tongue, gums, and inner part of the lips, are attacked (see representation).

Described in surrounding text

In the progress of the disease, the pharynx, or top of the gullet, is brought under its influence, and the ulceration spreads through it to the vertebræ or back-bone. Extending its course, it next attacks the larynx, or top of the windpipe, when, if not arrested, it will soon destroy life. Attending this affection of the larynx, there is always loss of voice—the patient speaks in a low whisper. It is more fatal than any other form of the venereal disease.

The mucous membrane of the nose stands next in order, as subject to the influence of syphilis. The patient's attention is first directed to it by an incrustation which forms in the nostril. On this being removed, a quantity of blood, mixed with purulent matter, is discharged. In two or three days, similar incrustations are formed, and under them ulceration takes place, which frequently lays bare the bone, and occasions it to exfoliate; and this exfoliating often continues after the venereal action has ceased. The number of bones which come away is often very considerable, and horrible deformity is the result.

The periosteum and bones become in their turn affected by swellings called nodes—the periosteum first, and the bones subsequently. Of these, the cylindrical, being most exposed to vicissitudes of temperature, are commonly the first attacked. Those which are much covered by muscle are rarely affected, as, for instance, the back part of the *tibia*, or large bone of the leg, while nothing is more common than to see nodes on its anterior part, which is only covered with skin and periosteum. They occur on the *fibula* only when it is slightly covered, and only on the *ulna*, or elbow-bone, when similarly circumstanced. Nodes on the *os humeri*, or shoulder-bone, except on the outer side, are of very rare occurrence, but are frequently found on the *clavicle*, or collar-bone, at its scapular and sternal articulations.

In the following wood-cut is an illustration of the most frequent situation of nodes on the forepart of the tibia, or chief bone of the leg.

The swelling is considerable; the upper one proceeding to suppuration, and the lower indicating merely a tumefaction of the lower part of the bone, near the instep.

Described in surrounding text

The symptoms which mark the disease are as follow: The patient experiences in the evening a sensation of pain in the bone which is afterward the seat of the node. In the course of a few days, a swelling appears in the evening, which disappears again on the following morning. It is excessively painful and tender at night, but in the morning it is hardly perceptible, and the tenderness is almost gone. At this particular period the periosteum is only affected; but when the inflammation has continued some time longer, the bone is diseased and becomes enlarged. The rationale is this: An inflammation of the periosteum ensues. In a short time a deposite takes place between it and the surface of the bone. This deposite, in the first instance, is only a serous fluid, but a cartilaginous substance is soon secreted, which is gradually converted into bone.

When attended to early, their treatment is very simple; but occasionally cases of considerable difficulty will arise.

Large quantities of fluid will be found fluctuating between the periosteum and the bone, which, when unaccompanied by redness and inflammation of the skin, may be absorbed by proper treatment, but which more usually is only curable by evacuation; and, unless great care be used, exfoliation of the bone will ensue to a very great, and sometimes fatal extent. The eyebrows, forehead, and temples, are often the seat of fluid tumors varying from the size of peas and beans. Their cure must be effected by absorption, or destruction of the bone is often produced.

The flat bones are also subject to syphilis. The one most commonly attacked is the *os frontis*, the symptoms being just the same as those on the skin. The side bones of the head now and then are affected; the os *occipitis*, or back-bone of the head, very rarely; and the *os temporis*, or temporal bone, being well covered with muscles, and exposed to very little change of temperature, is never affected.

The *os frontis*, being the most exposed, is the most frequently attacked. Suppuration sometimes takes place; and when this has occurred on the front, it has happened that the same suppurative process has occurred interiorly between the *dura mater*, or the external membrane of the brain, and the internal surface of the bone. The matter presses upon the brain, and death is the consequence, if the pressure be not removed by the use of the trephine or trepanning instrument. This is a degree of severity to which the disease rarely reaches now-a-days, from the more extended knowledge and improved treatment of modern times.

It must be observed, generally, of both these diseases—that of the throat and nose, and this of the bones—that they are oftener the result of improper treatment, such as the excessive use of mercury, and exposure to great vicissitudes of weather while under its influence, inducing what is called the mercurial disease (which in fact is, or was, of more frequent occurrence than the constitutional syphilitic one), than the result of the natural tendency of the disease in an otherwise healthy individual.

On the treatment of Syphilis.—I consider it a fair presumption that any invalided reader, except he be an accidental one, of this book—by which I mean one, not having *sought* its possession—must be acquainted with the association of *mercury* and *syphilis*. If not, let him be told for the first time, that such association exists as between copaiba and gonorrhœa; or perhaps what may be rendered more familiar to him, namely, as between *quinine* with *ague*, or *colchicum*

with *rheumatism*. That for upward of three hundred years past mercury has been held an antidote to venereal affections; and still is, in many forms of the same, acknowledged indispensable for their removal.

From old notions afloat, that syphilitic patients to be cured must be salivated to the extent of furnishing or filling two or three wash-hand basins daily with saliva—that the teeth drop out, that the breath becomes horribly fetid, and that the consumer of the poison sacrifices one third of his probable existence, even though he get well—the greatest possible prejudice exists against mercury, and the generality of uninformed patients have acquired a most uncompromising dread of the remedy. From the frequent difficulty in getting patients to submit knowingly to mercurial treatment, many new means have been caught up, and some judiciously applied.

This new method has its advantages; but it does not realize all that is promised. It consists in advising rest, cleanliness, simple soothing applications, and, on the other hand, mild astringent ones, a temperate diet, fresh air, an easy mind, sarsaparilla, and other alterative medicines. There are many believers in the efficacy of simplicity; and the success that follows such treatment of nine tenths of the ailments of humanity, bears out the usefulness of the preceding methods; but the remaining tithe have alike a claim upon our consideration, and of this tithe the syphilitic invalids form a large portion.

The anti-mercurial advocates have, however, a salvo, and admit now and then, an exception to exist, that particular cases *do* require a mercurial course, but then it should only be adopted in its mildest possible form, merely with a view to act on the general health, rather than for any specific property of its own. Again, there are books, which are very elaborate, and what is equally important, modern ones, written by talented men,[4] which still profess faith in the curative powers of mercury, and employ it as the chief agent in the

cure of the venereal disease. Instead of administering it to the same extent as formerly—instead of attempting to produce salivation to the flow of quarts—they merely aim at producing an impression on the constitution; they are satisfied with a proof that their patient is under mercurial influence: this is ascertained by a coppery taste in the mouth, a slightly increased secretion of saliva, and the presence of the accompanying, but temporary depression.

Now the question to be resolved is, which of the two methods is the correct one. The many forms of disease of the sexual structures satisfy me, that their treatment should be modified by circumstances; but I believe I am wise enough to know, and certainly old enough to have observed, that the severer forms of syphilis, and even the milder in some constitutions, require the aid of mercury for their cure; in fact, *will yield to no other plan of treatment*, thereby admitting the *specific virtues* of the remedy.

The principles, therefore, which I advocate in the treatment of syphilis, are precisely those I depend upon in gonorrhœa, or, to familiarize the analogy, in a fit of indigestion, or an attack of local or general inflammation. Where the health is disturbed, the first step is to attempt restoration. The fact is almost too familiar to every one to need repetition, that, as is the condition of the health, so is the resistance it is capable of opposing to disease. The next proceeding is, to attempt the subdual of the prevailing symptoms. Syphilis, whether in the form of chancre, bubo, or any of its secondary varieties, induces more or less fever, inflammation, and interruption to the important offices of digestion, and other vital processes, which consequently require the promptest attention. Equally various are the local indications of syphilis—the ulcers may be common, superficial, phagedenic, or sloughing, each requiring various treatment, as hereafter will be specified; but, above all, too much reliance can not be placed on the dietetic and physical regimen—two comprehensive significations, which are, after all, the Alpha and Omega of the

Materia Medica. With this declaration, I pass on to the treatment in detail of the more frequent and, I may add, leading features of syphilis.

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Treatment of Chancre.—Preliminary remarks.—Chancres are of various kinds. The most remarkable are:—

1st. That characterized by its circular form, its excavated surface covered by a layer of tenacious and adherent matter, and its hard cartilaginous base and margin.

2d. Another form of chancre, unaccompanied by induration, but with a very high margin, appearing often on the outside of the prepuce, and seldom existing alone, called, from the preceding description, the “superficial chancre, with raised edges.” These kinds of ulcers are sometimes very tedious, neither getting better nor worse, but resisting every plan of treatment for their removal. I have known instances where they have existed for several months.

3d. The phagedenic chancre, a “corroding ulcer without granulations,” and distinguished by its circumference being of a livid red color. This is the kind of chancre that is invariably rendered worse by mercury: indeed, cases have occurred where, from the injudicious administration of that medicine, the whole of the penis has been destroyed.

4th. A most formidable kind of chancre, denominated the sloughing ulcer. It first appears as a black spot, which spreads and becomes detached, leaving a deepened and unhealthy looking surface. The sore is very painful, and encircled with a dark purple areola. If neglected, or improperly treated, the process of mortification goes on until all the parts of generation are destroyed.

The last-named chancre is more often the consequence of neglect on the part of the patient, than the natural progress of the disease.

Now the usual method adopted by surgeons to remove chancres, has been to excise them, or to apply caustic; the latter is the plan I adopt, and would recommend; but all chancres are not to be treated alike, some requiring antiphlogistic remedies, others soothing, others

stimulant. Some practitioners rely entirely upon constitutional remedies.

On the first appearance of a chancre, I would enjoin an alteration in the diet, regulating it according to the strength of the patient. Abstemiousness should be the motto, avoiding extremes, however, lest debility should be induced. Quietude and rest, in the recumbent position, are two essential adjuncts in the treatment of primary syphilis throughout.

With respect to the treatment of the ulcer, characterized by its circular form, excavated surface, and hardened base, as detailed, the plan I almost invariably adopt is, immediately on its appearance, at least as soon as the pimple has broken or desquamated, to smear it with a hair pencil filled with the solution of caustic, sometimes twice, at least once a day (see Form 27), and to keep it frequently washed in the daytime with a lotion of the chloride of soda (see Form 28), or the black, red, or blue wash (see Forms 29, 30, 31).

If the patient be strong, and otherwise in good health, I simply recommend a dose of purgative medicine, in anticipation of any irritation that may arise. After which, I suggest a middle diet to be adopted for the next few days. From the sedative and salutary effects of the warm bath, I recommend its employment immediately after the operation of the medicine, and its repetition at frequent intervals. Independently of its effect on the system, it is the best general cleanser that can be resorted to. The subsequent treatment is regulated by the result of the above, which can be ascertained about the third day.

In numberless instances, and where the disease is thus early detected and similarly treated, the mere continuance of either the chloride lotion, or black wash, the middle diet, an occasional aperient, the bath, with as much rest as possible, are all that will be found needful to cure the disease, which generally is effected in

about a week or ten days at farthest. From the universal dread that so sudden a disappearance of the sore occasions, lest it should “be driven into the system,” and from the apprehension that it is incurable without taking mercury, I verily believe that, in many cases, the practitioner, participating in the fears of his patient, and anxious to allay them, reluctantly administers that mineral; and to such weak judgment may be traced the relapses, or the occurrence of other symptoms sometimes mistaken for secondary. Even when the case terminates favorably, and within the space of time alluded to, I would not be considered as recommending a sudden return to free living; on the contrary, I would not release the patient from the restrictions imposed upon his diet, exercise, and regimen, for at least the same time as was occupied in the cure, nor would I predict that, in every instance, secondary symptoms should not ensue. Mercury was supposed to possess some antisyphilitic property, inasmuch that, when chancre healed during its exhibition, secondary symptoms were averted. Facts, however, have been wanting to corroborate that supposition; for secondary symptoms have appeared despite the external and internal employment of mercury, even to the extent of salivation. Authors there are who attach similar properties to other medicines, such as nitric acid, sarsaparilla, and such like. Now, how do these medicines act upon the system? Or what is their tendency of action? Why, by increasing some particular function, such as the secretive process of the salivary and other glands; by increasing perspiration or absorption, &c. The remedies whereby these changes are induced are termed alteratives. I am not going to deny that these, or some such changes in the system, are unessential for the eradication, particularly of morbid conditions of structure and function, dependent probably upon altered condition and diminished action in others. On the contrary, they are the only antagonists to disease which we possess.

But what I contend is, that, in our selection, we should prefer those which produce most speedily and effectively the desired change, with the least detriment to the general health. And to this end, I invariably enjoin, where practicable, warm or vapor bathing. I have elsewhere considered this subject at length, to which I refer the reader; but I will fearlessly assert that no one, or any plan of treatment, will be found so effectual toward increasing physical power to repel disease, or so permanently preservative of health, as the modified employment of the warm or vapor bath; and, therefore, in all cases of doubt and apprehension, or independent of either, the use of the warm or tepid, plain, or salt-water bath, two or three times a week for a month, or the vapor bath about every fourth or fifth day for the same period, is the best preventive that can be adopted to avert secondary symptoms. Where bathing of every kind is impracticable, as is the case in some country places, and the same necessity exists, I advocate the administration of alterative medicines; nor do I object to the employment of mercury, where, under other circumstances, without reference to its imaginary efficacy in syphilis, it would be prescribed. But of this as we proceed.

Where, at the expiration of a week, the chancre neither recedes nor advances, and is the only symptom present, it is to be presumed that the condition of the patient's health has something to do with it, and that condition should be minutely inquired into. There may be diminished or increased appetite, with imperfect digestion; there may be fever, with restlessness at night; there may be torpor or irritation of the bowels; or the patient may consider his only ailment to be the chancre, the irritation of which may be found to arise from too active exertion. To whichever cause it may be ascribed, the treatment should be directed. In conjunction with local remedies, which may be varied, alteratives may be given—five grains of the blue pill twice a day; for instance, the Plummer's pill in doses of five grains every night, the occasional application of an active aperient (see Forms 33,

34), the decoction of sarsaparilla (see Forms 49, 50, 51). This plan, carefully pursued, seldom fails in setting up a permanent cure. The patient should be apprized of the vast importance of quiet, rest, and abstemiousness; for, where they can be attended to, the duration of the disease will be diminished one half; whereas, he who is continually in the erect posture, and subject to much walking about, who is indifferent to his diet, and lives as free as formerly, incurs the risk of bubo, and all its alarming consequences. Now, in no case or description of chancre, do these remarks apply so aptly as to the phagedenic and sloughing ulcer; in fact, they are applicable to all, but more particularly the two latter, as they are the result of already increased action. Mercury, violent aperients, and other active remedies, should also be avoided in these two forms of chancre; the local appliances should be poultices of bread and water, linseed meal, and a solution of opium, or poppy water; the sloughs or mortified portions we should endeavor to detach, by the application of a *smear* of nitric acid, or the chloride lotion (Form 28), or stimulative ointment (Form 38). The superficial sore usually gets well by the same means as the ordinary chancre.

Where the chancre is situated under the prepuce, and the latter covering is so inflamed and swollen as to prevent its being drawn back to exhibit the sore, the discharge should be carefully washed out by any of the lotions already recommended, by means of a syringe, several times in the twenty-four hours. Much good is often done by varying the local remedies, occasionally flouring or filling up the ulcer with calomel, tutty powder, blue ointment, or in fact any substance which alters the morbid action of the part; but, as a general rule, the lotions of soda, lime, zinc, or oxymuriate of mercury, will be found sufficient, if persevered in.

Treatment of Bubo.—Bubo I have already stated to be an inflamed and enlarged condition of the inguinal (as its name implies, signifying the groin), or, in fact, any other gland, occasioned by the passage of

the venereal poison from the adjacent ulcer through it, preparatory to its contaminating the constitution. But it is as well to know that the system may become affected, or, in other words, the poison may pass through the glands without involving them in the disease, or that the poison may there stop, and be expelled as the bubo is cured. It is also observed, that buboes are more frequently consequent upon an ulcer seated on the prepuce than on the glans. Buboes are not always, however, a sure criterion of the venereal disease, for they will occur wherever irritation is superficial and adjacent. Leeches applied to the temples will affect the cervical glands, a graze or wound in the leg enlarge the inguinal, and a whitlow on the finger, or any inflammation of the hand or arm, will very often irritate the glands in the axilla. In gonorrhœa, the glands in the groin become swollen and painful, from sympathizing with the sensibility of the urethra; but these and the preceding may, in general, be distinguished from true venereal buboes by their disinclination to proceed to suppuration; whereas, in syphilis, that process runs through its several stages with remarkable celerity, unless timely prevented. Buboes in the groin are much more troublesome, and more likely to betray the disease, than chancres, because they constitute an augmentation to the patient's suffering, seldom occurring, unless preceded by a chancre, and because they occasion a visible and necessary lameness. They also produce more general disturbance of the patient's health.

In the treatment of a bubo, venereal or not, the same principles recommended in the section devoted to the cure of chancre, should be followed in this instance—comprising attention to the general health, and a subdual of the prevailing symptoms.

In no form of syphilis is rest more essential than in bubo. The patient will be apt to plead the necessity of following his business, and the utter impossibility of staying at home; that is his affair, mine is only to protest against exercise, and urge the importance of rest,

and even the recumbent posture, and I can assure him, *that* alone will strip the disease of three fourths of its terrors.

Certain local diseases produce more constitutional disturbance than others—among them may be classed buboes; it would, therefore, be as impolitic suddenly and violently to repel an inflammation of a gland or glands, without establishing some outlet for the increased action to vent itself, as it would be to check a flux or suppress an exanthematous eruption, like measles or scarlatina.

If the bubo is, therefore, painful and inflamed, my advice is as follows: Stay at home, and rest; descend to middle diet; take some aperient; and should chancres alone be present, and a treatment going on for their extinction, continue the same; or, as bubo often immediately succeeds the ulcer, and probably may be the first symptom noticed, adopt, in addition to that recommended above the treatment as advised for chancre, namely, the administration of some alterative—for instance, five grains of blue pill every night—or the Plummer's pill every night—the aperient powder every other day; and let the local treatment be directed to remove the prevailing symptom, to subdue the inflammation, and, if possible, thereby prevent suppuration. It was formerly supposed that, unless buboes were allowed to suppurate, the system could not escape the venereal taint. Lower somewhat the vital powers, or, what may be more intelligible, diminish the general inflammatory action, establish some slight drain, by determining the secretions to the intestines or skin: and buboes, even when matter has absolutely formed, may be fearlessly absorbed, which judicious treatment will effect, in nine cases out of ten, without at all impregnating the constitution. To attain this object, warm fomentations constantly applied, and if possible the warm (hip or full length) bath every night. When rest is determined upon, if the swelling is great, red, and painful, leeches are eminently serviceable, but they must be applied in numbers of at least a dozen at a time, and repeated twice or thrice if necessary.

Three or four, by the irritation of the bites when healing, and especially if the patient will not or can not remain quiet, only worry and aggravate the disease. Where the inflammatory symptoms are great, where there is fever and much heat of skin, bleeding is the speediest and most effectual plan to subdue them; and, in my opinion, it is to be preferred before the trouble and bother of leeches. Where, however, there is no remarkable excitement, local or universal, the topical application of any of the ointments suggested will often promote absorption (see Forms 35, 36, 37).

Blisters applied over the bubo, very often disperse the swelling. Pressure also, made by means of a pad covered with tin foil (as seen in the subjoined cut), and continued for several days, frequently urges the absorption of the accumulated deposition in the gland.

Described in surrounding text

Where *bubo* has been suffered to proceed, and the suppuration appears inevitable, it would be highly improper to retard it: poultices and warm fomentations should be applied, and when fit, an opening should be made to permit the exit from, and prevent the extension of, the matter in the surrounding cellular membrane; the operation should not, however, be prematurely performed; the skin should be permitted to become thin before an opening is made, and that opening should be made in the most dependent position, in order to allow complete escape of the matter, lest fistulæ and sinuses should form. When an abscess is thus established, its healing must be promoted with all expedition, and care taken to preserve the strength of the patient. For the former purpose, poultices, mild healing ointments, or strapping plaster applied near the edges of the wound, should be used. Poultices may be applied with a bandage, as seen in the subjoined cut.

Described in surrounding text

When the abscess appears indolent and not disposed to heal, carrot and linseed-meal poultices may be substituted. Astringent ointments should also be employed (see Forms 38, 39, 40), or lotions (see Forms 41, 42), and the topical application of caustic to the edges of the wounds, or even paring them with a scalpel. The occasional use of the warm or vapor bath will give a healthy tone to the frame, invigorate the depressed powers, and promote recovery. The strength should be supported by more generous diet, and any of the formulæ comprised under the head of tonics, may be taken internally (see Forms 43, 44, 45, 46, 47, 48). As the patient becomes convalescent, change of air, gradual exercise, the cold shower bath, or sea bathing, will be of essential service.

———<>———

Treatment of secondary symptoms.—Secondary symptoms usually appear from the sixth to the sixteenth week, but are not unfrequently protracted beyond that period; they are commonly ushered in with fever—a general sense of being ill—a quickened pulse, headache, loss of appetite, pains in various parts of the body, and restlessness at night; in short, there is disturbance of all the vital functions, until it is determined which structures are to be the retreat of the common enemy. Some authors assign the skin and throat as more liable to attack than others; but I think the distinction dependant mainly upon the natural or morbid idiosyncrasy of the invalid. At all events, the inquiry here would be foreign to the design of this work, and less useful than the advice, how best to combat the evils when and wherever they occur. I have already stated secondary symptoms to consist of eruptions, ulcerations, and disfigurations of the skin, ulcerations of the mucous membranes of the mouth, throat, and nose, pains in the joints, swellings of the bones and their coverings, and inflammation of the various fibrous textures of the body.

Treatment of syphilitic eruptions.—The cutaneous eruptions of syphilis present considerable varieties, assuming a scaly, papular, tubercular, or pustular appearance. Formerly it was the opinion that no eruption was *venereal*, unless characterized by a scurfy exfoliation, and teinted of a copper color. This *test* is not now relied on. In the simpler forms, we find that the skin becomes mottled at first, which appearance may partially die away and reappear, deeper in color, and the spots become more numerous in extent. The patient should be apprized that, when the disease has progressed thus far, it is not in its nature to depart unbidden; but it advances usually from bad to worse.

The mottled dots enlarge, exfoliate, or scurf, or desquamate, as it is called, leaving the subjacent circle thicker and thicker, and of the same color as the cuticle which peels off. In the ordinary uninterrupted progression, scabs form, suppurate, and constitute an

ulcer, like a chancre, which ulcer assumes all the varieties of chancre. In other cases, the eruption, instead of being scaly, “has a raised surface, from which a whitish matter usually oozes.”

Described in surrounding text

The scaly copper-colored eruption, denominated, according to its severity and appearance, syphilitic lepra or psoriasis, is regarded as most characteristic of true syphilis, and is the most frequent. The annexed is a drawing copied from nature; it is alluded to a few pages further on: its pattern is frequently to be met with. A celebrated writer, Mr. Carmichael, attaches considerable importance to the character and appearance of the eruptions. He divides the venereal disease into four species or varieties: 1st, the scaly venereal disease, which he considers consequent upon the ordinary chancre; 2d, the papular, consequent upon gonorrhœal ulceration; 3d, the tubercular; and 4th, the pustular, he names from its appearance. These distinctions, if correct, must be more interesting to the surgeon, than serviceable to the patient, for the principles of treatment must be alike in all. Now, although mercury may be denied to possess any specific influence over the syphilitic poison, either by its chemical action or neutralizing power, except as a counter-irritant to the system, yet the inability of nature to shake off the pestilential hydra, unassisted by the weapons of the physician, is most apparent; and the most powerful of which is, that class of medicines called alteratives, none of which are more deserving, none more manageable, if the least judgment be displayed, than mercury.

The constitution, when under the influence of syphilitic poison, is being led like a willing horse to its own destruction; and unless the system be entirely revolutionized, that event is not likely to be retarded. Here mercury[5] may lend its powerful aid, and may be

carried even so far as to produce mild ptyalism or salivation. But there are instances where mercury is inadmissible. The patient, however, need not despair; extensive resources are still open for him —the preparations of antimony,[6] the mineral acids, sarsaparilla (Forms 49, 50, 51), iodine (Form 52), and a host of others may be resorted to; and last, though not least in importance, is the medicated vapor and fumigating bath. From my connexion with an establishment of that kind, my disinterestedness might be questioned in advising the employment of bathing. As well might the apothecary who deals in his own drugs, or the tradesman who vends his own wares, be suspected of disingenuousness; the reply I would offer should be, that the reader or invalid need not pin his faith on my assertion, unless it so please him; or if he does, may the onus lie at my door. But for his sake, and to bear out my own assertion, I offer this declaration, that, for the last twenty years, in conducting my establishment (wherein more cases of syphilitic eruption have presented themselves, than probably have fallen under the notice of any other medical man in London within the same period), no case, of which I have had the management, has failed of being cured.

Where syphilitic eruptions terminate in ulceration, the same local treatment should be used as advised for chancres. Among the prescriptions will be found formulæ for many useful topical applications, such as ointments, lotions, and fumigations, for all the external developments of syphilitic disease, with appropriate observations appended to each.

Treatment of syphilitic sore throat.—It has already been mentioned, that the order of appearance of secondary symptoms depends more upon the modified state of health than any fixed law of disease. Syphilitic sore throat may precede or follow the cutaneous eruptions; and it not unfrequently happens, that all forms of the disease are present at the same time: therefore, although they are here separately considered, it will be found that the treatment

corresponds nearly in all, the only difference being in the local applications.

Syphilitic sore throat consists of ulcerations of the *fauces*, *tonsils*, and *soft palate*. The inflammation begins in the part affected. There is a redness, and sensation of dryness. A small white spot is perceptible, which rapidly spreads, is detached, reappears, and in four-and-twenty hours, if seated on the tonsils, a cavity, as if a portion of them had been scooped out, is observable. The ulcer has a sharp margin, and its excavated surface is covered by a whitish or yellowish adhesive matter. At other times, the ulceration will be more superficial, but not less rapid in its progress, extending over the upper part of the palate, and back part of the throat. Here the general treatment is precisely the same as in the other forms of the disease, viz., rest, abstemiousness, low diet, aperient, saline, and alterative medicines, the blue pill, preparation of antimony, the bath, and total exclusion from all excitement. The topical treatment consists of fumigations, gargles, styptic lotions, nitrous acid gas, blisters over the larynx, rubbing in of any counter-irritating ointment; the object being throughout to watch, and endeavor to improve the patient's health, support the strength, and mitigate and remove the local symptoms.

In the affections of the nose and palate, the fumigations are indispensable; injections must also be used, and styptic lotions applied with a camel's-hair brush. These cases are very tedious, and, fortunately, in the present day, of rarer occurrence than formerly; and the patient, thus severely attacked, would be more prudent to rely upon some confidential medical adviser, than to trust in his own management.

Treatment of venereal affections of the bones and joints.—Nodes are alleged, by medical men of great authority, to be of rare occurrence, except the patient has been taking mercury; but the observation is not always correct.

Their treatment, of course, must be regulated by various circumstances. When the pain and inflammation are severe, leeches, bleeding, warm fomentations, or cold evaporating lotions composed of vinegar and water, must be resorted to. When they are chronic and painful, without redness and inflammation, the greatest relief will be experienced by the application of the ointment of iodine and morphine (see Form 53), also by the internal employment of iodine in doses of five to ten drops twice or three times a day. Where they are very obstinate, blisters will be often useful in promoting absorption. When they ulcerate, the treatment for chancres must be had recourse to. But the most invaluable remedy, alone or in conjunction with any of the preceding, is the vapor bath; it seldom fails to give instantaneous relief. I have seen patients, who were rendered almost insensible by the pain of nodes in the head, chest, and other parts of the body, experience an entire remission of the pain, and a diminution of the swelling, by the application of one bath; and a course of six or a dozen is rarely inefficient in effecting permanent recovery.

It has already been mentioned that rheumatism of the bones and joints, and in fact of various parts of the body, is unfortunately but too frequently an accompaniment or a consequence of syphilitic disease: and an observer will discover that nodes rarely exist without rheumatic inflammation (of which by-the-by they are a species) being more or less present.

SECONDARY SYMPTOMS.

In the same manner as bubo, which is more usually preceded by ulceration, but which may occur without it, secondary symptoms, or that form of the disease wherein the constitution is involved, may be carried into the circulation without any local effect on the part to which the poison was first applied being produced; or, in other words, secondary symptoms need not necessarily be preceded by primary. I have already stated that secondary symptoms are also much modified, both as to the time, form, and severity of their appearance, by the state of health of the patient affecting and affected; and hence the varied degrees of syphilitic maladies. By referring to past pages, it will be seen that the mucous membrane of the throat and nose, the skin or surface of the body, and the periosteum and bones, are the structures in which secondary symptoms develop themselves, and accordingly I now proceed to their several consideration in detail. To illustrate each of them practically, I will first select diseases of the skin. They consist of four marked species, distinguished as the scaly, papular, pustular, and tubercular.

The most frequent form of eruption is the scaly, and called syphilitic lepra. It is characterized by dry, flat, and round patches, of different sizes, and of a coppery-red color. Each spot is ushered in by a minute but hard elevation of a purplish hue, that gradually radiates in size until it acquires its limit. It then puts on a scaly appearance, and, as it desquamates, with the exception of the centre, which is sometimes left white, maintains its copper color. These patches may be distinguished from ordinary leprosy by their color, and their running on to ulceration, if uncontrolled by medicine,

and again by their more speedily yielding to judicious treatment; when they become paler in appearance, cease to exfoliate, and die away, leaving, however, a coppery stain. Syphilitic eruptions occur in all parts of the body, and are to be observed on the head, face, back, legs, feet, hands, scrotum, &c. (see wood-cut, page 118), but they are much modified in their external characters by the region they affect.

The pustular form of syphilitic eruption is also illimitable as to situation and extent. The pustules, at the onset, are scarcely to be distinguished from the patches of lepra, being of similar color. They differ in size, some being very large, and others very small. When they have existed about a week, a purulent fluid escapes, which hardens and crusts, constituting a conoid tumor, and surrounded by a copper-colored areola. This crust after a while drops off, leaving the under surface of the same teint as the margin. The pustular form of the disease is mostly consecutive to primary infection of the genital organs, and is often complicated with affections of the throat, nose, &c.

Syphiloid tubercles ordinarily attack the face, more particularly the nose, angles of the lips, ears, &c. They vary in size, are dispersed or grouped together, and are of a purplish copper color. Like the pustular, they terminate in ulceration, which on healing leaves an indelible scar. This and other forms of syphilitic disease are very irregular in their attacks, first selecting one spot, then another, then several together, so that the body presents often at the same time many stages of the eruption. The papular form of eruption is generally intermixed with the pustular and tubercular. It is less strongly marked, but, like the others, successive in its development, and usually complicated with primary symptoms.

There is a form of cutaneous disfigurement, entitled syphilitic exanthema, in which the skin is discolored by coppery-red blushes that disappear under pressure of the finger. There are also deep and

painful fissures and excrescences, called *vegetations*, from their resemblance to raspberries, strawberries, cauliflowers, and leeks, observed in syphilis, and most commonly they are to be found about the lips, nose, eyebrows, chin, genitals, &c.

It may not be unimportant to know that syphilitic eruptions are contagious by inoculation, and that secondary symptoms may be transmitted from one individual to another.

When I was a pupil of the London hospital, a woman and her child presented themselves for treatment. The mother was completely covered with copper-colored scaly eruptions, obviously and unequivocally syphilitic. The child also had venereal sore throat, and ulceration of the mouth. The account which the mother gave of herself was, that the eruption appeared a few weeks after her confinement; and, upon further inquiry, it was discovered that the husband had had a chancre of the penis: that was cured, but secondary symptoms showed themselves upon him. It was during the presence of the latter that he had intercourse with his wife, at about the sixth month of her pregnancy. The surgeon of the week gave it as his opinion, that the disease was conveyed by the male semen being absorbed by the mother, which was sufficient to occasion the disease. The mother, husband, and child, all submitted to mercurial treatment and fumigations, and in a few weeks entirely recovered.

Treatment of Secondary Symptoms.—Now in the treatment of these cases, all of which are more than *skin deep*, it is evident that, unless the cause which produces them be expelled, all local repellants only exhaust the physical energies of the patient; for the cure by such means but provokes a speedier reproduction of the disease, and hence the necessity of constitutional as well as topical remedies. I have fully explained my views regarding the employment of mercury; and every day's experience convinces me that, where the constitution is imbued with the venereal virus, there is no

alternative but to employ the most active alteratives, to effect a decisive and speedy change in the state of the patient's health. Various habits require various preparations; the blue pill, the oxymuriate, calomel, and the external application of the unguentum hydrargyri fortius, are highly useful. I have, however, of late, been in the habit of employing the proto-ioduret of mercury, with unqualified success; nor do I limit its administration to internal exhibition; it may be used externally. The advantage of this preparation over others is, that it rarely, if ever, produces ptyalism.

In old and inveterate cases, combined with the use of the warm and vapor bath, both of which may be impregnated with it, it has wrought wonders; and in cases that had proved rebellious to every other means, although sedulously employed, it had effected a speedy and decisive cure. In the cure of an elderly person, covered almost from head to foot with syphilitic ulceration, the internal and external application of the proto-ioduret occasioned, at the end of a few weeks, the entire disappearance of the sores, leaving only a slight livid trace. In ulceration of the throat, nose, and in fissures of the genitals, indolent buboes, &c., the success is no less remarkable than effectual.

The following is the formula, which may of course be altered according to circumstances:—

Form 54.

Take of the—

Proto-ioduret of mercury	20 grains.
Gum guaiacum, in powder	1 drachm.
Confection of roses, as much as is sufficient.	

Mix to form 36 pills—one to be taken twice or thrice a day.

Form 55.

For external use, take of the—

Proto-ioduret of mercury	1 drachm.
Lard	2 oz.

Mix.

A portion to be rubbed over, or to dress the affected parts twice a day. If the ulceration be seated in the throat, honey of roses may be substituted for the lard.

The decoction, or any other preparation of sarsaparilla, may be taken also in conjunction with the treatment just suggested.

An ounce of the sarsaparilla root infused in one pint of lime-water (cold) for twenty-four hours, and a wineglassful taken three times a day, is a very eligible mode of taking it. Or—

The compound extract of sarsaparilla, dissolved in lime or soft water, one ounce to the pint, and taken in similar doses to the last, is a very good mode of exhibition.

Bathing is indispensable.

SYPHILITIC LEPRA.

A PERSON aged about 29 years suffered under the above disease, and presented the following appearances and symptoms: He was covered nearly all over with copper-colored spots, the margins of which were both elevated and red. The voice of the patient was rather hoarse, and he complained also of a tenderness on swallowing: the pain extended to the windpipe and tonsils (or almonds) of the ear, as they are called. He experienced pain in his limbs, which he described to be worse at night when in bed. The spots on the skin every now and then desquamated, or peeled, or scurfed off, leaving the cuticle red and shiny underneath, and here and there the cutis was ulcerated. On examining the throat, the swallow appeared very inflamed, and the “pap” very pendulous. He was hot and feverish, and acknowledged that he had had the venereal disease about nine weeks ago, and for which he had taken some medicines that he bought, and which had cured him. When in bed, he complained of a burning, tingling, and itching of the body, wherever it was covered with the eruption.

The treatment was as follows: I bled him to the amount of twelve ounces, and prescribed a strong aperient powder. On the second day there was less irritation, and the spots appeared less red. I advised him forthwith to take a vapor bath, and repeat the same on alternate days for a fortnight. I prescribed the pills as subjoined, and directed one to be taken twice a day, to be succeeded by a dose of the decoction of woods, as directed already.

Form 56.

Take of—

Proto-ioduret of mercury	20 grains.

Gum guaiacum, in powder 1 drachm.

To be well mixed together, and made into a mass with syrup, and then divided into 24 pills.

The body, on coming out of the vapor bath, or while in it, to be sponged over with the following wash made warm:—

Form 57.

Take of the—

Deuto-chloruret of mercury	1 drachm.
Eau de Cologne	1 oz.
Water	1 pint.

Mix.

Occasionally I order the patient to be placed in a mercurial bath, of which there are several kinds, and which can be administered either in the form of the fumigation or in a fluid state.

After taking the bath, he could breathe with freedom and comfort; he could also swallow without difficulty, and he expressed himself much refreshed and invigorated. Many of the eruptive spots on the body had exfoliated; and he said he felt a conviction that he should soon get well.

At the expiration of a week, when he had taken but three baths, the soreness of the throat had left, the pains in his limbs were all gone, and he slept well; the ulcers had healed, and the eruption had nearly died away. I advised a continuation of all the remedies; and after three weeks of such perseverance, he was rewarded by an entire recovery. The only alteration I directed to be made in his diet was an abandonment of stimulants, such as wine, spirits, or porter.

NODES AND PAINS IN THE BONES.

In long-standing cases of syphilis, where either much mercury has been taken, or the constitution weakened by low living or careless treatment, a painful affection of the bones, periosteum, tendons, and ligaments, frequently arises. Where the inflammation attacks the bone or periosteum, it usually exhibits itself in the form of a tumor, that is at first hard and acutely painful, then becomes soft, and does not always subside without ulcerating, and occasioning a tedious and unhealthy sore. These tumors are called nodes, and are extremely rapid in growth, very uncertain in their duration, and sometimes disappear as quickly as they come. When the inflammation is seated in the ligament and tendons, rheumatism is established. Both these affections are very harassing to the patient; the pains are severest at night, and wholly prevent sleep, the countenance becomes sallow, appetite, strength, and flesh fail, and hectic fever completes the list of troubles consequent upon these forms of the disease. Nodes and rheumatic pains may exist independently of, or in connexion with, other syphilitic symptoms. Cases having already been related of gonorrhœal rheumatism, which are analogous to those proceeding from venereal absorption, any further detail of such would be superfluous. The treatment should also be conducted on the same principles in the one as in the other.

The specific virtues of the vapor bath will be attested by one trial. I have seen innumerable instances of immediate relief from a single application. There are few forms of syphiloid disease more distressing than these pains in the bones; the patient is all but distracted with the agony he endures. The relief he experiences from

the vapor bath surpasses belief; it verily appears to be magical. It constitutes the best opiate we have.

Temporary relief, however, is not all that we want. It is no use to remove the effect, and leave the cause behind. The aid of medicine is indispensable. Formulæ of the most appropriate remedies will be found among the prescriptions. The general directions as to diet, regimen, and clothing, dispersed throughout these pages, must be strictly attended to. The stomach must not be at any time overloaded with indigestible food. Milk diet is the best; milk thickened with farinaceous food, mild tonics to restore the tone of the stomach and impart strength, alteratives, sarsaparilla (Form 58), the old Lisbon diet drink, and all the suggestions hitherto offered with a view of improving the constitution, should be carried into effect.

SYPHILITIC SORE THROAT.

THE period that elapses between the appearance of the primary and secondary symptoms has already been stated to vary from six weeks to six months; and some medical writers assert that, if months may elapse, upon the same principle years may, and therefore the patient who has once been afflicted with the primary form of the disease is never exempt from the liability of the secondary. That syphilis, and diseases resembling it, do occur at every period of life, is a fact of daily observation; and it is a matter of less moment to know whether the invalid has ever had chancre or bubo than is generally supposed, for the treatment of every form of syphilis, and complaints putting on like appearances, should be conducted on similar principles. If mercury do possess anti-venereal properties, it will be found no less obnoxious to ordinary sore throats, ordinary ulceration, and cutaneous disfigurement. The presence of any of the abovenamed diseases indicates a habit predisposed to their occurrence; and that susceptibility may be induced by a variety of causes, the most prominent of which are those that debilitate the constitution, such as syphilis itself, or the remedies exhibited for its extermination, cold, fever, intemperate or impoverished diet—all of which more or less abstract from, or derange the distribution of, nervous energy. As in the cure of these diseases, their removal depends upon an entire alteration of the system, upon that principle alone should mercury, or any other remedy be administered, not upon its supposed specific neutralizing or annihilating antisyphilitic power.

All this, of course, is a question of experience; and as I profess that this work should convey the result of mine, I do not hesitate to

express my conviction that secondary symptoms do present themselves years after a primary affection; but at the same time I admit their more frequent occurrence to be within three months; and, with regard to diseases resembling the above, they are entirely independent of such influences, and are the result of circumstances from which no man is free. Of syphilitic ulcerations of the throat, which are rarely solitary symptoms of the disease, being usually accompaniments to articular eruptions or rheumatic pains, there are several forms. They are ushered in by feverishness, languor, and a peculiar contour of the countenance, particularly expressive of anxiety and debility. Of the first form of ulcerated throat, and which is perhaps the least frequent, is an excavation of the tonsil, with a tumid and red margin, accompanied by a stiffness and uneasiness in swallowing. A more common form, and which, from its occasioning little or no inconvenience, is seldom discovered by the patient until it degenerates into a worse state, is that where the ulceration is more superficial, resembling fissures rather than ulcers, and being situated at the back part and edges of the tonsils, and low down the throat. From the absence of pain and difficulty in swallowing, the medical man is usually the first to detect it, when, on opening the mouth, the throat—that is, the hinder part of the fauces—will be discovered red and somewhat swollen; and on pressing down the tongue with a spoon or spatula, the ulceration will be apparent.

The last form—the phagedenic—is the most formidable, both in symptoms and effects. It is characterized by fever, and great pain and difficulty in swallowing, from the beginning; all denoting acute inflammation of the throat. The first appearance of ulceration is on the soft palate, where a small aphthous spot is discovered, surrounded by a deep erysipelatous redness, that proceeds rapidly to involve the neighboring parts, which soon assume the appearance of one extensive slough. This latter disease requires prompt and

active treatment, else the bones of the palate and nose become implicated, exfoliate and occasion a permanent deformity.

The process of cure in these cases must be regulated by circumstances. In persons of full habit, blood-letting will be requisite to arrest at once the inflammation. An active purgative should also be taken; when, if the ulceration resist these anti-phlegmonous measures, there is no alternative left but to subject the system to the influence of mercury. The proto-ioduret pill will be found the best form, and the diet drink should be taken in conjunction. The vapor bath, which can be medicated with poppies, marsh-mallows, and ivy-leaves, or any other emollient herb, will be found to ease deglutition, promote perspiration, and afford ease. Local applications, such as gargles, styptics, &c., are indispensable. Subjoined are a few formulæ, with remarks:—

Gargle for the milder form of sore throat.

Form 59.

Take of—

Honey of borax	1 oz.
Emulsion of bitter almonds	5 oz.

Mix. To be used six or seven times a day.

Form 60.

Or take of—

Infusion of bark	6 oz.
Diluted nitric acid	40 drops.

Mix.

Where the ulcers have an indolent, or present a sloughy appearance, either of the following will prove useful stimuli:—

Form 61.

Take of the—

Oxymel of Verdigris	1 oz.

The ulcer to be smeared with this preparation, with a hair pencil, twice or thrice a day.

Or, take of the muriated tincture of iron a small quantity, to be used in like manner.

Honey of roses, acidulated with muriatic acid, is a very agreeable astringent.

In severer cases, such as the phagedenic ulceration, the subjoined prescription will be found worthy of a trial:—

Form 62.

Take of the—

Oxymuriate of mercury	1 grain.
Mucilage of quince seed	6 oz.

To be mixed to form a gargle, to be used frequently.

Ulceration of the larynx is an occasional consequence of syphilis; but fortunately a rare one, as it is generally fatal.

All the symptoms enumerated in this section have been known to succeed gonorrhœa, and demand similar treatment. The advocates for the analogy between gonorrhœa and syphilis herein find a ready explanation for such an occurrence, which those adverse to the above opinion have no other means of controverting than by submitting that its rarity is no very substantial proof. Similar results also transpire from the imprudent, or too free use of mercury. The following case is a prototype of the many:— The patient was a person about thirty years of age, and was thus affected: there was considerable inflammation in the entire back part of the throat; the tonsils were excavated to some depth by ill-looking ulcers, the uvula shared also in partial destruction; the tongue was swollen, the tip and front part of it fissured, and on the left side an irritable ulcer was apparent; the nose discharged a disagreeable fluid, and occasionally

gave off crusts of hardened secretion. The body of this person, including the head, was thickly sprinkled with venereal blotches of the usual copper color. His health was much impaired, and he stated the disease to have been of nearly twelve months' duration from the first to the last.

The treatment consisted of the exhibition of mercury in the form of the proto-ioduret, and the sarsaparilla. The ulcers were touched with nitric acid, and submitted to mercurial fumigation. At the end of two months he was convalescent. In cases of ulceration of the throat and nose, I have used the nitrate of silver, both in substance and solution, with good effect.

ADVICE TO INVALIDS.

HAVING now fully considered every form of syphilitic disease compatible with the design of this work, a few hints relative to the after-management of the patient when relieved from his complaint, to guard against a relapse, and to secure an entire restoration to sound health, may not detract from its utility. There are many patients who, on the disappearance of the more prominent symptoms of their complaint, lose no opportunity of rejoicing in their supposed recovery, and innocently commit sundry inapparent irregularities, that throw them back to their former state of suffering, which a little prudence and attention might have prevented. The more severe the disease has been, the slower, generally, is the recovery, and also less permanent in its result. The mere subsidence of pain, the healing of a wound, the disappearance of a cuticular eruption, or the suppression of a morbid secretion, are not in themselves sufficient indications of substantial recovery. The various physical and mental functions which, during illness, are always more or less involved, have yet to regain their tone. The digestive powers of the stomach are easily deranged, and require watchful management to secure the vantage gained. Equal care is essential, lest the intellectual organs be too prematurely called into active employment. Convalescence is often protracted to an almost indefinite period, frequently from the most trifling errors in diet. The stomach of a person reduced to a low state of debility through a severe inflammatory disorder, remains for a long time exceedingly sensitive, and fails not to evince displeasure when oppressed with indigestible, or too great a quantity of food. No cause predisposes the patient to a relapse, or retards his recovery, so much as inattention to diet. It is a popular error to suppose that the weakness consequent upon severe illness is only to be removed

by rich and substantial food and wines, and other stimulating drinks. Such indiscretion often rekindles the disease, or predisposes the system to the supervention of some other complaint. The change from the sick-room to the parlor diet should be gradual and progressive. The milk and farinaceous meal may be varied by degrees to the milder forms and preparations of animal food. Solids should be given at first in small quantities; the diet should be rigidly adhered to, and in the change from low to full diet, the intermediate one should not be skipped over.

With regard to medicines, in no form of disease is it so important, as in venereal affections, that they should be continued for some time after the disappearance of symptoms. Many a relapse of gonorrhœa and secondary symptoms have occurred through the sudden abandonment of the means adopted for their cure.

Exercise forms another important part of management in convalescence; it should not be suddenly resumed, nor should fatigue by any means be incurred. Early retiring to bed, and early rising in the morning, tend considerably to promote and preserve health. Warm clothing is very essential and necessary for invalids.

The general signs of amendment are as follows: a reduced frequency of the pulse, which is always accelerated in acute diseases, the absence of thirst, a clean tongue, a moist skin, a good appetite, and refreshing sleep; and, lastly, all these are corroborated by an improvement in the looks. The improved aspect of the countenance has always been regarded as a sure criterion of returning health.

STRUCTURE, FUNCTIONS, AND DISEASES, OF THE FEMALE ORGANS OF GENERATION.

THE female genitals occupy the same relative situation in the pelvis as the male, but they are an antithesis to each other. The male are constructed to deposite, and the female to receive; consequently, in the female there is a conduit or passage, in place of the male penis, termed the *vagina*, leading to the womb—the receptacle for the impregnating fluid. The vagina is placed between the bladder and rectum. Its entrance is marked by doublings, or longitudinal folds of flesh, called *labia*, between the upper part of which is the opening of the urethra into the bladder, while below is occupied by the aperture, passage, or fissure, as above described. At the roof of the vagina is a fleshy ridge, with a pouting apex or point analogous to the penis in the male, except being impervious, and called the *clitoris*, which possesses the power of erection, or rather of becoming intumescent when excited, and also of furnishing a peculiar secretion. It is exquisitely sensitive, and believed to be the seat of pleasure in the sexual embrace. The vagina consists of a very soft, vascular, elastic, and contracting structure, constituting, when its sides are collapsed, liliputian rugæ, or ridges, like the impressions left on the sand by a receding sea. Its surface is lined by a delicate mucous membrane, which secretes a lubricating fluid. It is this membrane which is the seat of gonorrhœal discharge, fluor albus, &c.; and it is also subject to ulcerations and other diseases. From the clitoris is suspended an inner fold, like a graceful mantle, called *nymphæ*, which are also extremely sensitive, and appear to serve, as they surround the urethra, also for the purpose of directing

the flow of urine. Under the opening of the urethra, adherent to the external margins of the vagina, is a membranous veil, or curtain, with a small central aperture, called the *hymen*, the presence of which is looked upon as a test of virginity. After the laceration or dilatation of this membrane, which takes place through other causes than sexual intercourse, the sides of it contract, and form little wing-like slips, to which the fanciful name of *carunculæ myrtiformes* is applied.

The subjoined diagram will familiarize the reader with the situations of the female organs thus far given. It exhibits a sectional view of the contents of the pelvis, or lower part of the abdomen:—

1. The bladder.
2. The urethra, or entrance to ditto.
3. The vagina.
4. The womb.
5. The ovary.
6. The fimbria, and fallopian tube.
7. The rectum, or lower extremity of the bowel.
8. The hymen.

Much has been said regarding the presence of the *hymen* in its entire state. It has been deemed by many to be there placed as a moral evidence of chastity; but its laceration is by no means an infallible test of dishonor. In females of feeble or consumptive health, and others of delicate constitutions generally, the aperture of the hymen may become dilated from natural causes—from too profuse a flow of the menstrual flux, from local debility of the part itself, such as exist in the disease known by the name of the *whites*; and it is sometimes to be traced to the habit of personal and solitary excitement, as will be presently alluded to. The membrane is occasionally so dense and hard as to resist sexual cohabitation; and only upon dividing it by the scalpel, can intercourse be sustained. At

other times it is so fragile and so vascular as to be torn with the least violence, and profuse hæmorrhage to follow.

At the end of the vagina is the *uterus*. It is suspended by what anatomists call its broad ligaments, which have certain local attachments. It resembles in shape a pear. It is of a peculiar structure, capable of great distension, and possessing extraordinary properties. It is divided into a body, neck, and mouth, and when unimpregnated, is very compact, and occupies but little space. The interior is consequently very small, and it secretes and pours forth at certain periods a sanguinous discharge, termed the *menstrua*. When conception has occurred, the mouth of the womb, which before was open, becomes permanently closed until the period of delivery. Connected with the womb, and constituting a most important part of its machinery, there are discovered in the roof of the interior of the uterus, two openings, which are the ends of two tubes or canals, called the fallopian tubes.

These tubes have their origin in the *ovaria*, which are two small bodies encased in the ligamentous band supporting the uterus, and resembling the testicle of the male; hence they have been called the female *testes*. These ovaria contain a number of little vesicles of the size of mustard-seeds, and some of the size of a pea, in number from twelve to fifteen. These vesicles are denominated the eggs of the human species. Annexed to the ovaria are observed, surrounding the tubes, certain *fimbriæ*, which grasp the ovaria during the copulative act, when prolific, and squeeze out, as it were, one of these little eggs, and propel it into the uterus.

Still further to facilitate the understanding of the structures described in addition to the preceding diagram, the following drawing is presented. It exhibits a section of the female pelvis, and explains more fully the relative positions of its contents:—

a—The bony portion of the pelvis separated from its junction with its companion.
b—The spinal column of the back.
c—The bladder.
d—The orifice of the urethra.
e—The body of the womb.
f—The neck of the womb.
g—The vagina.
h—The rectum, or end of the intestines.

The subjoined drawing illustrates the shape and appearance of the womb detached from the body:—

Described in surrounding text

To particularize: The upper part is called the *fundus*; the widest part, the *body*; the *neck*, the narrow part; and the lower portion the *mouth*, or the *os tincæ*. The connexion of the fallopian tubes is well shown.

The uterus, or womb, is described by physiologists as being of a spongy structure—a structure that yields with its enlargement—that grows with its growth—that resumes the former size when disburdened of its contents. It is supplied with blood-vessels, is duly supported, has scarcely a cavity when unimpregnated, but is ever in a state of preparation for changes. Of conception we shall presently treat.

There is one function too important to omit in this place, and this is menstruation—a term indicating a monthly periodical discharge that escapes, or which is given off, from the womb. At the commencement of this function, woman is said to have arrived at puberty; but there are cases of precocity, and others wherein it never occurs, that neutralize this assertion; besides, menstruation, being

deferred or protracted, depends frequently upon peculiarities of health. As soon, however, as it occurs, a sensible change takes place in the female economy; and certainly the other developments of womanhood rapidly follow.

Menstruation is the monthly discharge of a red fluid, common to females from fifteen or sixteen years of age to between forty and fifty; and it is held that, while a female menstruates, she is apt, and capable also, to conceive. Menstruation is a device of nature to relieve the system, or to preserve the balance of the circulation, from the non-fulfilment of her intentions, by the absence of procreation. It usually continues for four, five, or six days, and seldom exceeds a few ounces. Its suppression is usually attended with marked ill health, and many of the formidable complaints of females are attributable to its irregularities. When anticipated, the female encounters feelings of depression and lassitude, and exhibits an aspect of feeble health. As a physiological fact, women, before and after menstruation, are more desirous of the exercise of sexual privileges, and usually the approach of the menstrual flow is accompanied by a sexual orgasm. It has ever been deemed, by almost universal consent, prudent for married persons and others to abstain from the sexual embrace during that period. If only on the score of cleanliness, it should be observed; besides, the likelihood of establishing irritability, and the probability of interfering with this healthful provision of nature, should deter from the indulgence. In some countries, menstruating women are excluded from associating with the other sex altogether, and are even forbid mingling with household duties. At the close of this article will be found a series of prescriptions and suggestions for the removal of the various disturbances this function is liable to.

The act of connexion is urged by what is called the sexual propensity. It is accompanied by feelings of the intensest kind: the acme of enjoyment is at the moment of seminal ejaculation. The

penis is excited to erection by the influx or rush of blood into its cavernous or cellular structure; the scrotum becomes constricted, and compresses the testicles; the *vesiculæ seminales*, and the prostate gland, are also elevated by the muscles called *levatores ani*, as shown in the preliminary anatomical drawings, whence their use may now be better understood, as well as those of the perineal muscles, which all more or less assist in causing the prompt and forcible ejaculation of the spermatic fluid.

"In[7] the female, the sense of enjoyment, *sub coitu*, appears to be principally excited by the friction of the *labia interna* and *clitoris*, which are alike in a state of turgescence or erection. This nervous excitement, as in the male, often reaches such a degree of intensity that a kind of syncoptic state is induced." A sense of contented lassitude follows, and the mind is permitted to return from the regions of excited imagination to its ordinary quietude.

The due occurrence of the phenomena just detailed does not necessarily secure, although it generally succeeds in producing, a prolific result. Health, aptitude, and one important condition, are indispensable; and the last is—a positive contact between the male sperm and female ovum.

There are many remarkable eccentricities that embitter married life. A union may exist between two parties who are wholly inapt for mutual enjoyment. The sensations belonging to the sexual act are involuntary, and are provoked independently of the will: hence, in connexion without consent, or under feelings of great repugnance, the orgasm is sometimes aroused; and yet, where the greatest affection and desire prevail, the male oftentimes unseasonably concluding before the female, is a most tantalizing source of disappointment. Further allusions will be found to this subject under the heads of "Sterility," and "Impuissance."

As a preliminary aid to the description of the process of impregnation, which ensues, the following anatomical draft is presented:—

1. Section of the womb, upper part.
2. Do. of side.
3. Do. of lateral covering.
4. Do. of lower part of womb.
5. Cavity of the womb.
6. A prominence leading from the openings of the fallopian tubes.
7. The vagina.
8 and **9.** Fallopian tube cut open.
10 and **16.** The fimbriated extremity of do.
11. The pavilion.
12. The ovary.
13. Vesicles in do.
14. Continuation of ovary.
15. Ligament of do.
17. Pavilion of right ovary.
18. Right ovary.
19. Connecting band.

Man, unlike other animals, is not smitten with desire to propagate only at particular periods. In sentient beings, every season is favorable to the flame of love.

When conception takes place, the following phenomena are believed to occur: The womb is supposed to participate in the excitement of the sexual act, and at the moment of the orgasm, to receive the male seed, and to mingle with it a fluid of its own. The whole apparatus of the uterus appears influenced at the same time, [8] by a kind of electric irritability. A vesicle, owing to the ovaria being grasped or embraced by the fimbriæ, escapes from its lodgment and enters the fallopian tube, where it bursts, and its albuminous drop is conveyed into the womb.

From the circumstance of the male semen returning from the vagina after copulation, it has been doubted whether it was intended to enter the uterus. It certainly can only enter once,[9] and that when impregnation takes place; and even then a small portion suffices, for immediately after conception the mouth of the womb becomes impermeably closed. The mouth of the womb lies horizontally, like the lips of the face, while that of the orifice of the urethra is arranged perpendicularly: hence the presumption, from this better adaptation to transmit and receive, that the semen to impregnate should enter the uterus.

This question is mooted, because it has been supposed by some that impregnation ensues from the vapor or odor of the male seed ascending to the womb. Contending parties admit, while others deny, that the seed may be, and has been, detected in the womb of females and animals having been slain (or who may have died) during or soon after the act of copulation. Impregnation has followed very imperfect penetration, such as in cases of unruptured hymen, or of disproportion of parts, and other causes needless to insert here, by which the supposition is supported that conception takes place from vaginal absorption; but it must be remembered that the seed is projected generally with great force, and that the smallest possible quantity is sufficient for impregnation; also, that the vagina possesses a constrictive movement of its own, whereby the seed is carried into the womb.

After the escape of the “albuminous drop,” the vascular membrane which contained it is converted into what is called a corpus luteum; denoting thereby—for it assumes the form, after a while, of a fleshy nucleus—that the female has either conceived, or has been under the influence of strong amatory excitement. This *salvo* must be admitted, for corpora lutea have been discovered in females where intercourse was even impossible; but as this detection of corpora lutea generally corroborates the surmise that so many conceptions

have taken place as there are corpora lutea, it is to be presumed that the exception must be owing to some similarly powerful mental, as well as physical excitement.

When impregnation has taken place, the womb begins to enlarge, and become more soft, vascular, and turgid—the wonderful process of fluids assuming the form of solids commences, and within a fortnight an investing membrane is formed, called the *decidua* (I will insert as few names as possible), consisting of two kinds of folds, one lining the womb, and the other containing the *ovum* which has therein “taken root.” The ovum is now a soft oval mass, fringed with vessels, and composed of membranes containing the early fœtus. See sketch.

Described in surrounding text

When opened, the fœtus appears surrounded by three distinct membranes: first, *the decidua*; secondly, *the chorion*, the inner fold of the former; thirdly, *the amnios*. The decidua, as before stated, lines the womb; the two others cover the ovum or fœtus. After a time the amnios and chorion become adherent to each other, and a fluid is interposed betwixt the amnios and fœtus, called the *liquor amnii*. The fœtus, as it advances, is perceived to be hanging by an organized support, called the umbilical chord, floating in the liquor before named.[10]

A draft is here presented of an ovum (a section) of a fortnight old; and adjoining is one just double its age, where the chord will be perceived.

Described in surrounding text Described in surrounding text

The following further account may aid the description thus far given. The ovum, protected by a membrane of its own, called the amnios, descends into the uterus, where it takes its hold of the membranes already there—the decidua. It pushes its way before, as exemplified in the subjoined drawing:—

a—The decidua lining the womb.
b—Do. protecting the ovum.
c—The upper part of the womb, where the ovum has become adherent.
d—The ovum.

The next cut shows the advanced condition of the fœtus:—

a—The womb.
b—The liquor amnii, with the fœtus.
c—The chorion.
d—The decidua.
e—The opening of the fallopian tubes.

It will answer no practical usefulness to go through the whole minutiæ of the various physiological changes that take place relative to fœtal growth from the hour of impregnation to that of delivery. What has already been detailed, has been offered to unveil a little of that singular ignorance that exists generally among non-medical persons regarding the history of themselves. “Too much learning is a dangerous thing;” and it will readily be allowed, that a sufficient idea that certain things *happen* is oftentimes as useful as to know *how* they happen, especially when it belongs to a department requiring much research, time, and ingenuity, thoroughly to understand, and which may chance to be foreign to our ordinary pursuit.

The period consumed in gestation is forty weeks, or nine calendar months, and the time is calculated from a fortnight after the suspension of menstruation. Some married ladies pride themselves upon being able to predict to a day—to tell the precise occasion when they conceive, and which they date from some unusual sensation experienced at the particular embrace which effected the important change. Many medical men disallow that such tokens present themselves, and are opposed to the belief which many mothers entertain, that nature is so communicative; and also are skeptical of those extraordinary influences that every day furnish proofs of maternal imagination, occasioning to the burden they carry, sundry marks, malformations, and monstrosities. Examinations have found that the order of fœtal organization is somewhat as follows: the heart and large vessels, the liver and appendages, the brain, stomach, and extremities. The determination of sex and number has hitherto defied exploration. In the early months of pregnancy the womb maintains its natural position; but as it enlarges, it also emerges from the pelvis into the abdomen. The moment of its slipping out of the pelvis is termed quickening, of which most women are sensible—some fainting on the occasion, others being attacked with nausea, hysteria, and palpitation of the heart. Quickening usually occurs between the fourth and fifth month. The fœtus is then called a child—the law ordaining that, if a woman intentionally procure, or such parties as may assist in so doing, abortion or miscarriage before quickening, it is misdemeanor, if after, murder.

The following diagram is presented to show the situation occupied by the womb containing the child just ready to enter the world:—

a—The womb.
b—The vagina.
c—The bladder.
d—The rectum.

A full pregnant female, like a very corpulent man, walks very erect: hence the popular notion that ladies in the one condition, and gentlemen in the other, do not think meanly of themselves, but strut along well pleased with their own importance. It is an uncharitable idea; the attitude is unavoidable, the head and shoulders being thrown back to counterbalance the protuberance in front—to preserve, in fact, the centre of gravity, to save themselves from falling.

Symptoms of Pregnancy.—Mysterious as is the process of impregnation, there are many forewarnings which, being generally found correct, are useful to be known. Great as are the changes that take place in the female economy during child-bearing, and productive as they frequently are of serious disturbances to health, it is benevolently ordained that women who fulfil their destiny of becoming mothers, have better health to sustain them through their travail than the single or unprolific. The signs of pregnancy during the first few weeks are very equivocal. The first probability is the suppression of menstruation, which is accompanied by fulness of the breasts, the nipples of which become surrounded by a dark areola; headache, flushing in the face, and heat in the palms of the hands, ensue; also sickness in the morning, and probably an accession of mental irritability; various longings exist—many very ridiculous, others bordering on insanity, and some indicating great perversion of temper, habits, in hitherto well-conducted inclinations.

There are many phenomena more readily discovered by medical men accustomed to the accoucheur's employment than describable, that indicate pregnancy; the sinking of the abdomen, the descent and closure of the uterus, the altered facial looks, the state of the pulse, &c., &c.

From the fourth month, when the womb ascends into the abdomen, the signs are more positive: the protrusion of the navel, the evident enlargement of the belly, the tenderness and fulness of,

and occasional escape of milk from, the breasts, clearly point out the occasion.

About the fifth month, the movements of the child are very apparent to the mother, when all doubt is removed.

There are some conditions of female life that assimilate to pregnancy, and which have defied the judgment of matrons, and even medical men, but they are rare—such as dropsy of the abdomen, or ovaries, tumors, accumulations of wind, &c. These, with the suspension of menstruation (which last is but an uncertain sign, for it may depend upon cold, fever, or inflammation), have destroyed the anticipations of fond wives, and have alarmed those who desire not to become mothers.

Parturition takes place at the end of the ninth month; but children born at the end of seven will live, and examples are related of some that have “gone” ten. In France, legitimacy is allowed to children born on the 299th day of pregnancy.

Labor is distinguished by a softening of the soft parts of the female organs of generation, an abundant secretion of mucus, a relaxation of the mouth of the womb, and a forcible contraction of its body. The expulsion of the child is effected by pains of a straining nature. After the birth of the child, the womb contracts to its *normal* or unimpregnated size, giving forth a discharge, called the *lochia*, that lasts for several days, and the breasts immediately furnish the secretion of milk.

Previously to entering upon the consideration of the diseases arising from infection, and for which this book was originally composed, a word or two may be said upon a condition of the womb, unfortunately of frequent prevalence, called *prolapsus uteri*, or *falling of the womb*. Such occurrence may take place with single females as well as with married, or those who have borne children. It may be held as the result of debility; and according to the degree of descent

is the inconvenience and suffering. The first drawing exhibits the natural position of the uterus:—

Natural position of the uterus

a—The vagina.
b—The uterus.

A partial descent of the uterus gives rise to painful dragging sensations about the groins and fundament, and it is usually attended by the “whites,” or leucorrhœa, a disease of which mention is presently made:—

Partial descent of the uterus.
a, a, a—Vagina.
b—Uterus.

If *prolapsus* takes place during pregnancy, the womb impresses upon the bladder and rectum, and occasions irritability of both those structures; but as pregnancy advances, and as the womb ascends into the abdomen, these inconveniences cease, and the womb oftentimes regains its tone and position after child-birth. The womb sometimes protrudes externally, and is a source of great distress. See drawing:—

Prolapsus uteri.
a, a—Vagina.
b—Uterus.

The treatment in these cases is chiefly mechanical, beside supporting the general health. The first symptoms, however, demand efficient attention, and the medical attendant should be made acquainted with every particular.

It is a question whether the weakened condition of the supports of the womb, and the consequent relaxed state of the vagina, are not owing to the manner in which women clothe themselves. The pelvic part of the female is kept always in a state of unnatural warmth, from the load of petticoats and other unnameable female attire. Contrast but the difference between the simple unlined trowsers of the male and five or six-fold clothing of the other sex: either the one must yield too much warmth, or the other must strike too cold. The sedentary habits of women have of course much influence.

When retention of urine follows the falling down or partial descent of the womb, the female should lie on her back, press the uterus into the pelvis, and urinate in that position.

The womb, beside becoming displaced, is subject to an *eversion*, or a turning inside out. Happily, such cases are unfrequent, but any disturbance of so important an organ demands the promptest attention.

DISEASES OF WOMEN, AND THE USE OF THE SPECULUM.

Described in surrounding text

THE introduction of the stethoscope and the speculum constitute two important epochs in medical science—the former ascertaining, by the conveyance of sound, disease in the most hidden and inaccessible parts of the human frame, and the latter bringing to view structures which, without such aid, are necessarily veiled from our sight. The speculum consists of an instrument formed of silver or steel, that without pain or inconvenience is passed into the vagina, when, by a simple contrivance, it is made to expand and dilate the vaginal passage, and thereby expose to view the entire canal, together with the uterine aperture. The usefulness of such a method, whereby disease can at once be detected, admits of no dispute. It is physically painless; and if opposed to female diffidence and modesty, its importance and serviceableness should be balanced against the mental distress such a procedure may occasion. On the one hand, without its assistance, the treatment of the disease is at best but conjectural; on the other, by its aid, it is safe and sure—much suspense and suffering is at once put an end to. Experience has proved that many local disturbances, that were believed to have been merely vaginal irritation, have been discovered to depend upon absolute disorganization of the neck and mouth of the womb. Deep-seated ulceration has been detected, and cancerous enlargements; the disease thereby having been exposed, has had the necessary and successful treatment. In Paris, it is considered so valuable that a

chair, termed a “speculum chair,” has been invented solely for its use. See engraving on previous page.

The speculum is now in the hands of every respectable medical man, and the class of disorders that hold it in requisition are being better understood, and consequently more successfully combated. In no cases is it more useful than in secretive irregularities, such as in leucorrhœa, gonorrhœa, or syphilitic ulceration. Without further comment, these diseases will be considered.

GONORRHŒA IN THE FEMALE.

THIS disease is rarely so violent as in man, it being mostly confined to the uterine conduit; in fact, except by the discharge, women are almost unconscious of its existence, mistaking it, when occurring in married life, for leucorrhœa. Occasionally, however, the inflammation is highly acute, and a variety of distressing symptoms ensue. There is considerable excoriation around, and a swelling of the organs, much *ardor urinæ*, and the same constitutional disturbance as in the other sex.

The medical treatment of both sexes is constitutionally alike; but the female has to depend more upon local treatment than the male. Hence the importance of injections. Now here is another source of difficulty: women are as averse to the use of the syringe as they are to the speculum; and the consequence is, vaginal diseases are generally protracted to double as long as they need be. However, as these hints are likely to be seen only by those who doubtlessly have, and who indisputably ought, to exercise it, namely, influence over the sex in persuading them to submit to what common sense bespeaks as most prudent and expedient, appropriate formulæ for the suggestions just recommended will be found a few pages hence. Frequent ablution, rest, temperate diet—the more farinaceous and mucilaginous the better, avoiding entirely wines, fermented and spirituous liquors, together with mild (Form 63) aperients and salines, constitute the chief means of cure. Injections are indispensable.

I have already alluded to the difficulty of getting female patients to be their own confessors. If they appoint others, every possible information should be furnished, and fastidiousness by no means

should supplant the avowal of real facts. Although gonorrhœa in women is generally less severe than in the male, it is vexingly oftentimes more lasting; which is easily accounted for, owing to the extent of surface diseased: whereas in man it is limited to the narrow urethra, and seldom exceeds an inch or two upward, constituting not one tithe part of the space morbidly affected in the former. See, however, the formulæ.

SYPHILIS IN FEMALES.

THE principal features of syphilis in women consist of ulcers, excoriations, warts, and buboes. Women, of course, are alike liable to all the forms of secondary symptoms. Chancres usually appear *within* and *on* the *labiæ*. In the drawing here given, the labiæ are drawn aside to expose the ulceration; and they are also found within the vagina and surrounding the mouth or protuberance of the womb. It is in these cases that the speculum is had recourse to; and in the Parisian hospitals every case is subject to such a mode of investigation.

Described in surrounding text

The following three illustrations show what a degree of severity ulceration and other changes put on. The first exhibits superficial excoriation extending rapidly, and occasionally a swollen appearance of the *os uteri*; the second shows extensive chancrous ulceration; and the last of a tuberculous character, like little hardened tumors. But for the speculum, these conditions might have gone on to worse, and led to irremediable mischief: their treatment, independently of local means, such as injections, &c., would have been prolonged to an almost indefinite time. The use of styptics is demanded in female as well as male syphilitic developments, and accordingly the employment of nitrate of silver, copper, &c., is advised, as already explained.

Described in surrounding text Described in surrounding text
Described in surrounding text

The following drawing shows the extent of mischief and annoyance to the external organs of female generation consequent upon neglect. The external labiæ are studded with chancres. The thighs, buttocks, and rectum, are dotted and overspread with excoriations. The person from whom this sketch is taken was an unfortunate woman of the town. As it is not my intention to particularize cases, although from my peculiar province I could fill up as many pages as this book contains, with details of such histories, I have only to add, by way of summary, that the topical and constitutional treatment being alike in both sexes, the only modifications required will be the regulating of the doses of the medicines, which must be done with reference to the idiosyncrasy, age, and temperament, of the patient. The frail system of woman is less able to withstand the dire effects of the disease, or the potent means for its extirpation, than her stronger brotherhood, and therefore the abler and more experienced the counsel, the fairer the chance of her recovery; a hint that the writer feels assured will not be received by those to whom his pages are addressed, as a vain appeal to repose confidence in other advice than their own.

Described in surrounding text

LEUCORRHŒA, FLUOR ALBUS, OR THE WHITES

THIS is the most prevalent of all derangements of the female economy, connected with the uterine system; and from its debilitating effects, induces a train of maladies that tend to embitter personal comfort more than any other human ill. Leucorrhœa consists of a discharge of acrid, or bland, but variously-colored mucus from the vagina, differing in intensity according to the cause and duration. It would be idle to offer the many arguments set up to prove whence it proceeds, or to examine the discussions as to whether it is the produce of the uterine vessels, or the vaginal secretives. That both aid in its formation is doubtless the case (as the employment of the speculum has satisfactorily proved); and equally certain that, according to the amount of irritability existing therein, so depends the quantity and character of the discharge. It exists in the married and single—in the moral and unchaste; and therefore the cause should be cautiously divined, it being evident that other than sexual indulgences establish this annoying and distressing affliction. It may be fairly conceded to be a vitiated secretion, depending upon a weakened state of the local vessels, and, moreover, in particular habits, to be a salutary evacuation. On the other hand, it must not be denied that it is oftentimes, where it occurs to persons living *sub judice mariti*, the result of sexual intemperance, or disease springing from an indiscriminate indulgence in the same.

However, as my purpose is more with the symptoms and treatment, the following may be received as a summary of what occurs, and what should be done for the removal thereof:—

In addition to the discharge, which at one time is scanty, at another profuse, there are usually severe pains in the loins and lower part of the abdomen: there is a sense of bearing down, as though the womb were descending and even protruding. The general health of the patient is disturbed, loss of appetite, excessive languor, a pale and emaciated look, sleepless nights, dark areola around the eyes, various hysterical and other nervous affections, and numerous disturbances indicating a weakened and impaired state of mind and body. Among other causes beside those alluded to, may be enumerated irregular living, late hours, mental and bodily fatigue, deficient exercise, impure air, and neglect of personal ablution. Among the consequences of a long-continued leucorrhœa, an almost certainty of sterility should not be omitted.

Treatment.—In leucorrhœa, where or where not consecutive to gonorrhœa, depending on loss of tone of the secretive vessels of the internal organs of generation, the chief indication is to impart vigor and restore strength, which it is evident depends much upon an avoidance of those causes that first started the disease.

Although leucorrhœa bears a strong resemblance to gonorrhœa, there are points by which to distinguish the one from the other. In gonorrhœa, the discharge is unceasing, but small in quantity, and is usually accompanied by inflammatory symptoms; whereas in leucorrhœa, the discharge is irregular and copious, often coming away in large lumps.

The treatment of fluor albus is indicated by the degree of severity present. Where the prominent feature is the discharge, the indication is to increase the action of the absorbents by restoring the tone of the diseased surface, and at the same time to strengthen the system. Where the disease is complicated with weakness and relaxation, astringents should be given by the mouth, and also administered in the form of injections. The alkaline solution of copaiba is a very valuable medicament, and may be taken twice or

thrice daily. It may also be employed as an injection, by adding one or two ounces to a pint of water, and a teacupful thrown up several times in the day. There are many domestic remedies, which, from their harmless properties, can at least do no injury, if they are not productive of good; as, for instance, a strong decoction of green tea, an infusion of oak bark, or alum-water; or diluted port wine—all to be used as injections, which, if it shall so please the patient, may be tried prior to the annexed:—

Form 64.

Chalybeate Pills, for Leucorrhœa, or other Female Sexual Weakness.

Take of—

Sulphate of iron	1 scruple.

Balsam of copaiba and liquorice powder—of each a sufficiency to form the mass, which is to be divided into 40 pills, of which 3 or 4 may be taken three times a day.

Or, take of—

Sulphate of zinc	1 scruple.
Extract of camomile	1 drachm.
” gentian	1 ”
Syrup, a sufficiency.	

Mix, and form 24 pills. Dose—two twice a day.

Form 65.

Strengthening Mixture.

Take of—

Infusion of bark	7½ ounces.
Sulphate of quinine	8 grains.
Diluted sulphuric acid	½ drachm.
Syrup of orange-peel	2 drachms.

Mix. Dose—three tablespoonfuls twice or three times a day.

Form 66.

Astringent Pills for Leucorrhœa.

Take of—

Extract of Peruvian bark	1 drachm.
Gum kino	1 ”
Alum	½ ”
Nutmeg	1 scruple.

Syrup, sufficient to form the mass. Divide into 36 pills. Dose—three pills three times a day, to be followed by a teacupful of lime-water.

Form 67.

Astringent Pills.

Take of—

Alum	30 grains.
Catechu	1 drachm.
Opium	5 grains.

Mix to form 30 pills. Dose—three twice a day. Useful in chronic gonorrhœa and leucorrhœa.

Form 68.

Astringent Pills for obstinate Gleet, or Leucorrhœa.

Take of—

Gum kino	1 part.
Canadian turpentine	4 parts.

Powder of tormentilla, as much as may be necessary to form a mass. Divide the same into pills of 5 grains each, and take from three to half a dozen of them night and morning. Continue them for a week or fortnight. A very useful remedy.

Form 69.

Astringent Injections for Leucorrhœa or Gonorrhœa.

Take of—

The compound solution of alum	½ oz. to 1 oz.
Water	1 quart.

Mix.

Injections may be used two or three times a day. If found to irritate, they should be diluted with water. Appropriate

syringes are to be had; but the best are those formed by the Enema apparatus.

Form 70.
Astringent Injection.

Take of—

Sugar of lead	1 scruple.
Water	1 quart.

Mix.

Or, take of—

Catechu	1 drachm.
Myrrh	1 ”
Lime-water	½ pint.

Mix.

Or, take of—

Nitrate of silver	1 scr. to 1 dr.
Water	1 quart.

Mix and strain. This lotion is much, and very effectively, used by the profession.

Or, take of—

Sulphate of zinc	½ to 1 drachm.
Water	1 quart.

Mix.

See Forms 11 and 12.

The remaining diseases peculiar to the female pelvic viscera and their outlet, are hæmorrhoids, irritability and inflammation of the bladder, disordered uterine functions, urethritis, or inflammation of the urinary passage, and, lastly, internal and external irritation or excoriation. But as these fall within the province of every family practitioner, to the consultation of whom no morbid delicacy should prevent a patient, having such in their confidence, from resorting, I shall conclude this section by appending sundry prescriptions, in order that, should prudence not direct the sick one or her friends to call in the advised assistance, help may not be entirely withheld, and

in order that, if the aid offered be not the means of supplying the loss of a more proficient and skilful director, it may at least be found mitigatory of these interruptions of health and comfort:—

Form 71.

Pills to promote the flow of the Menstrual Secretion.

Take of—

Aloetic pills, with myrrh	1 drachm.
Compound iron pill	1 ”

Mix to form 24 pills. Take two twice a day.

Or, take of—

Compound galbanum pills	1 drachm.
Socotrine aloes	1 ”

Mix to form 24 pills. Dose—two twice a day.

Form 72.

Injection for the retention of the Uterine Periodical Secretion.

Take of—

Liquor of ammonia	10 drops.
Milk	½ pint.

To be used morning and evening. This is a remedy that has been used by many medical men with very great success.

There are no means so importantly serviceable as the frequent use of the warm and vapor bath.

Form 73.

Stimulating Drops to restore the Menstrual flow.

Take of—

Compound tincture of aloes	1½ oz.
Tincture of black hellebore	1 drachm.
” castor	1 ”
” Lyttæ	30 drops.

Mix. Dose—a teaspoonful in water three times a day.

Form 74.

To relieve entire suppression.

Take of—

Compound galbanum pills	1 drachm.
Sulphate of iron	1 ”
Extract of savin	10 grains.
Of black hellebore	20 ”

Syrup sufficient to form 36 pills. Dose—three twice a day.

All these medicines must be given with great caution.

Form 75.

To check an immoderate flow of the Menstrual secretion.

Take of—

Infusion of roses	8 oz.
Tincture of opium	30 drops.

Mix. Dose—three tablespoonfuls three times a day.

Or, take of the tincture of ergot of rye, a teaspoonful in water twice a day.

Or, take of the sesqui-chloride tincture of iron, 20 to 30 drops in water, three times a day.

Form 76.

For painful Menstruation.

Add to a portion of gruel, upon going to bed, 15 or 20 drops of laudanum. This quantity may also be taken in the morning, and repeated several days; the bowels in the meantime to be relieved by castor oil.

The warm hip bath, in these cases, is invaluable.

Or, take of—

The extract of stramonium	½ gr.
Spanish soap	5 grs.

Mix to form a pill to be taken twice a day.

Form 77.

To allay external irritation.—Sedative application.

Take of—

Oil of almonds	6 ounces.
Spermaceti	½ ”
White wax[11]	½ ”
Rose-water	3 ”
Orange-flower water	10 ”

Dissolve the wax in the oil, then add the waters, and constantly stir till cold. This is an admirable application for irritation or excoriation of the external parts. It is commonly known as “cold cream.”

Form 78.

To heal Excoriations.—Mild drying ointment.[12]

Take of—

The oxide of zinc	1 drachm.
Ointment of spermaceti	1 ounce.

Mix.

Form 79.

For obstinate Excoriations.

Take of—

Ointment of nitrate of mercury	½ ounce.
Superacetate of lead	1 scruple.
Spermaceti ointment, or cold cream	1 ounce.

Mix.

EFFECTS OF INCONTINENCE, CELIBACY, AND MARRIAGE.

THE past pages relate chiefly to the diseases of the generative system consequent upon contagion, upon accident, and the ordinary wear and tear of human life: the following, to the ills that ensue from the over-indulgence in, and abstinence from, the proper purposes of the reproductive organs, and the benefits derivable from a fulfilment of the intentions of their natural functions.

There may be much good policy and correct feeling in objecting to the too public inquiry into these matters. The private closet and the public eye are two very different tribunals, and what may be approved of in the one is very likely to be condemned in the other. The line of deciding what shall be communicated and what should be suppressed may be drawn too closely; and that knowledge which is acquired by stealth is seldom so practical as that obtained by competition. If, therefore, the topics herein embraced were to be expunged, and their discussion prohibited, the afflicted would have no other resource than to apply to the adventuring and ill-educated empiric, instead of confiding his troubles to the legitimate professional man. A study, to become useful, should be general; and it is to be hoped that the prudish reserve which excludes this kind of investigation from our medical schools will be laid aside, and truth be obtained by allowable investigation.

The most moral and chaste, at the age of puberty, are assailed with feelings and desires, that, though new and unanticipated, yet need little interpretation when present, and so urgent and imperious, that if not legitimately satisfied, nature and instinct are not slow in pointing out a means of gratification.

In the male, imagination commanding a wider range than in the female, and fed by associations with, and the usages of, the world, elicits consequences explanatory of life's purposes; and the youth having once experienced, perhaps unsolicited, and possibly during sleep, the agony of seminal secretion, can rarely withstand the afterward tempting pleasure of seeking a self-repetition of such solitary indulgence, which the forbidden union of the sexes, at this early period, may urge him to.

Setting aside the selfishness and unmanliness of the vice, it is important that the wearer of the cap and bells should know the consequences of abusing a given function by such a means of gratification. There is no mental passion, or physical exertion, that produces such temporary nervous prostration as the completion of the act of sexual intercourse; and it therefore can be easily conceived how debilitating must be the immoderate indulgence of the practice. Health consists in a due performance of all the functions of the organs of the body, and an undue exercise of them is sure to lead to a disturbance of the economy.

In ordinary sexual commerce, particular phenomena ensue, the circulation is powerfully roused, the heart thumps violently, the blood is driven to the brain, and great mental exaltation is induced, and instances have been known of death suddenly crushing the transport. The too frequent repetition of such excitement can not fail to wear out, and disease the overwrought organs, the heart and brain particularly, upon the healthy condition of which the health of the entire frame rests; and hence the diseases of the libertine are usually consumption, physical weakness, and mental imbecility, all the result of disordered circulation and impaired nervous power. If, therefore, such consequences follow a waste of the allotted privileges of man, how much more severe must they be that arise from nervous exhaustion, that which transpires from an absolute stretch of an already overwrought imagination, from, in fact, ideal

pleasures, instead of those springing from the instinctive stimulus imparted by the presence of, and cohabitation with, woman. I have elsewhere treated upon the sad and withering effects of self-indulgence in a hygæan point of view. My object here is to portray the consequences of the like, and the more lawful, intemperance of sexual cohabitation in a domestic light, in how far it is destructive to the health and happiness of others, than the party addressed—the partner of our worldly anxieties, and the offspring that issue from our union. How striking is the change of *appearance* only, much less the positive bodily condition of married persons of both sexes, within one or two years of their union, especially if the match be a youthful one. Let any one, even with a limited acquaintance, recollect such of his former female associates, whom he knew when single, and mayhap may have indulged with in little modest pleasantries; let him recall the gay-lit countenance, the ruddy and prominent cheek, the sparkling and lively eye, the plump and well filled neck—in fact, let him but compare her then and now, and how disheartening the change; the same being may be recognised, but it is the same being only in mind, and not in person. There are exceptions, as I shall presently show, but this is the too frequent portraiture of those who embark in precocious hymeneal contracts, and restrain not the marital privileges. The countenance assumes, when thoughtful, the careworn aspect; the blanched cheek shows here and there a furrowed imprint; the lustre of the eye is dimmed; and, to drop from the figurative to the literal, the collar-bones, hitherto “overlaid with nature’s plastic moulding,” seem appointed only for union’s sake, lest the fabric of neck and shoulders should drop in pieces. Mark also the decayed health and spirits; hear the bitter grief of headaches, sideaches, nerveaches, and behold, perhaps, the puny offspring “mewling and puling in the nurse’s arms.”

The bridegroom wears a sorrowful and thoughtful look. He may possess all the comforts which few inherit, but like Pharaoh’s lean

kine, as chaff thrown before the wind, their purpose is opposed.

This may be held as a ridiculous picture, but I defy denial of its unhappily too frequent illustration in real life. A word or two on the opposite extreme, *continence*. The reader will observe, in another page, the remark that every part, be it flesh, bone, or nerve, has its use. The reproductive organs have theirs; but it is not only for the propagation of the species—they afford an outlet for accumulated secretion—they aid in resolving the animal passions—they are the secret incentive to sexual love, and the bond of union between the sexes. They give an appetite that, like hunger, must be appeased, or nature revolts; and the harmony of society falls before the ungovernable fury of maniacal craving. Health, the source of all happiness, without the possession of which the world with its beauties would be, for all we cared, tenantless, materially rests upon a proper and moderate use of the copulative process. Entire continence, a rarity among mankind, establishes in both sexes the most miserable perversions of mind and body. In man, we have instances recorded of mania, melancholy, apoplexy, and foul skin-disorders. Blindness, deafness, and a host of evils, some greater, and few less than these just penned. It is true, continence is, as remarked, but seldom observed, especially in males, who, being denied sexual commerce, are estranged by the distressful habit of onanism; and thereby, in some measure, the enumerated maladies are avoided; but as masturbation, like other vices, grows with unbounded speed, a train of ills, far more distressful, await the sufferer, who, in addition, becomes, in the meridian of life, deprived of the very power he in youth was so improvident of. Continence in females, which all admit to be the brightest ornament a woman possesses, is attended with a poor requital; and its prevalence (to the honor of our countrywomen be it spoken) is truly attested by the miseries of hysteria, and other nervous derangements, that pervade the junior and elderly maiden branches of every family, and

constitute so formidable an enemy to domestic felicity. A wide field is open for comment upon this subject, which is better adapted for the moralist than the physician. This manual, professing to be but a vehicle for topics of a professional nature only, the writer apologises for the digression, and can but express his regret, that public opinion is unfavorable to the discussion of such matters, which embrace considerations highly important to a nation, both in a moral and hygæan view. Continent persons but seldom attain old age; whereas, the married females, for instance, although exposed to the dangers of pregnancy and delivery, live generally longer than those who are unmarried or chaste; and provident married men escape the ills and snares that beset single *blessedness*, as it is called. Libertinism, on the other hand, in whatever way practised, is hurtful and destructive to long life.

Continence may be a virtue, but is not imposed where marriage is allowable; and then, if deviated from with moderation only, the greatest amount of health and happiness may be elicited, and the proper end of it obtained. Matrimony, where succeeded by the birth of children, powerfully conduces to the health and happiness of women.

Many female disorders are relieved by marriage. Amenorrhœa and chlorosis, disordered conditions of the uterine functions, hysteria, scrofula, skin-affections, numerous nervous disorders, and many local complaints, yield as soon as pregnancy commences.

Results should, however, be well weighed, before irrevocable steps are taken. There are many diseases and structural impediments opposed to the matrimonial contract. Malformation and mental imbecility should be held as strong interdicts to the conjugal union. People ought not to marry before manhood is well developed (the male at least 21 to 23 years of age, the female 18 to 21). Precocious or late marriages are injurious to reproduction. The unnatural union of old and young of either sex with the other, entails

its own miseries. A curious estimate of salacious appetites and power has been drawn up as pervading the different temperaments. The temperaments, as elsewhere noticed, are four—the Sanguine, Nervous, Bilious, and Phlegmatic. Persons of the sanguine temperament are generally of good health, and vigorous in amorous pleasures. The nervous are extremely susceptible in their sensations, and generally much given to female society. Combined with the sanguine, they are capable of great amorous excesses. The bilious temperament imparts a jealous bearing in all affairs of sexual solicitude, that detracts from the fondness and affection which so entwine a woman to a lover or a husband. The melancholic or phlegmatic person is frigid and apathetic in his amours; and love becomes with him a secondary consideration to advancement in life. These temperaments are frequently intermixed, and are much modified by age and health; and the salacious powers correspond.

Speculations have arisen among physiologists, as to the effect of climate and season, as well as age and temperament, on the reproductive powers. Temperate and warm climates are more prolific in exciting the copulative desire, than the frigid and uncongenial situations of the northern hemisphere. The seasons bear a somewhat near analogy—spring is supposed to be more potent than summer, autumn, or winter, in arousing the amative propensities, which, like the productions of the earth, come, as it were, at that time into a new existence. This observation is borne out by the statistical fact of there being a greater number of births about Christmas and the new year, than any other period.

Man, however, is allowed to be omnivorous in *all* his appetites; and the uniformity of his sexual greediness is preserved by diet corresponding to the season, which renders the whole twelvemonth a perpetual spring. Man, as well as other animals, is, when in a state of health, capable of procreating upon almost any food. But when there is debility of the digestive or generative organs, the injury can

be repaired by the use of proper stimulating diet, thereby occasioning due and sufficient secretions.

Air, exercise, health, and prosperity, are not without considerable influences. If seasons are not positively influential, certain it is, that particular lunar and solar periods are, taken in conjunction with the state of the body.

“Morning,” says a French writer, “is the spring of the journey, when all the functions of the body are renovated.” Others declare, that when night veils the light of the day, the quietude and secresy thereby afforded, offer moments most congenial to the gratification of mutual love. Sexual transports should be avoided after a repast, instances having been known of apoplexy being induced by the excitement of connexion being superadded to the stimulative influence of wine and food.

Henry II. consulted one Fernal for the infertility of his queen, Catherine de Medicis. The advice submitted, comprised the following notifications: Abundant and peculiar nourishment; occasional change of residence; the allowing several days to elapse between each conjugal act; and lastly, that the most favorable moment for impregnation was immediately on the cessation of menstruation. It was not until the adoption of these hints, that her majesty conceived.

Professor Dewees, of Philadelphia, enjoins that, for the enjoyment of marriage and the production of children, matrimony should not be engaged in, until the body is healthily and completely developed; until then the most scrupulous continency should be preserved. From the 23d to the 25th year is the suggested period for the male; from the 19th to the 21st, the female. These observations apply to Europeans chiefly; for in India, women become mothers at ten, owing to their early development. Precocious marriages bring premature decay on the father and mother, and entail on their offspring, diminutive stature, debility of body, and imbecility of mind,

thus generating consumption, scrofula, insanity, &c. Well-regulated marriages contribute to social and lasting happiness, and the prosperity of the nation at large; but ill-assorted ones, those where the peace of either is infringed by opposing tempers, or by the after-discovery of hitherto concealed physical incapacities, present a scene of wretchedness and disappointment to which death itself were preferable. These remarks might be considerably amplified; but enough has been said, to induce those who approach to manhood, to be provident of that which, once lost, is, under all circumstances, difficult to regain; and those on the eve of embarking in the most binding and solemn obligation of all human contracts, marriage, to ponder well, ere they compromise the happiness of others as well as themselves, by engaging in a compact, they may know themselves incapable of fulfilling or of efficiently performing; one from which they can not with honor retreat, and one that, once sealed, demands a rigid compliance with its recognised duties.

The gist of the present article may then thus be summed up: That self-indulgence and excessive sexual cohabitation are hurtful in the highest degree; that they induce early impuissance, and bring down a load of menial and corporeal ailments. That premature marriages are destructive to health and long life, and that weak and sickly children are the general result where impregnation of the female follows. That entire continence was never ordained, and is alike productive of disease. That moderate copulation propagates the human kind, preserves health, and promotes longevity, and the sexual capability is thereby retained to the latest verge of senility.

That it is unnatural and unjust for impuissant persons to intermarry with those having healthy expectations, and the power of enjoyment; and that it behooves all who have a doubt as to their own capacity, to have that doubt removed; but, if rendered evident, to abstain from shipwrecking their own happiness, or from occasioning disappointment to others.

THE HEREDITARY TRANSMISSION OF DISEASE.

THE topics of Incontinence, Celibacy, and Marriage, having been severally considered relatively to their effects on society, viewed alike also as to their influence on the health and happiness of the sexes in general, another equally engrossing one naturally presents itself for inquiry to every thinking and sensible person who may contemplate, or be about embarking in what the world deems “a serious speculation,” matrimony, namely, the probability of issue, and how far the health of the progeny may be influenced by that of the parents. That conception requires the necessary aptitudes in both man and wife is indisputable; and that although such capacities are rarely absent, still all unions are not prolific; hence the inference, that some cause must exist to account for such infertility.

It may be local or moral, as elsewhere in this volume explained, which not being the main purport of this paper, needs no other allusion beyond the mere reference. The prevailing resemblance between parents and children in features, form, voice, and even constitutional peculiarities, is sufficiently well known to satisfy any one of the similar possibility of the transmission of disease, or sound health. “It is of great consequence to be well-born; and it were happy for human kind, if only such persons as are sound of body and mind should be allowed to marry.”

We find in Boethius’s work, “De veterum Scotorum Moribus,” that anciently, in Scotland, if any were visited with the falling sickness, madness, gout, leprosy, or any such dangerous disease, which was likely to be propagated from the father to the son, he was instantly gelded; a woman kept from all company of men; and, if by chance,

having some such disease, she were to be found with child, she with her offspring was buried alive. The Spartans destroyed all weakly and deformed children.

Great as the anxiety may be to perpetuate our identities, to create new objects on whom we may concentrate all our affections and love, and who, when born to us, so instinctively bind us the more to this already attractive world, where is the man who does not feel humbled and mortified at beholding in his anxiously looked-for offspring, the unfolding of infirmity and disease? We are content to encounter the ordinary chances of mortality, let but our children bear the impress of health, and possess the shape of perfect man; but sad and desolating are the reflections that spring from observing in our issue the developments of the evils we have nurtured in ourselves. How many existing beings are there, inhaling the breath of life, in whom every respiration feeds the flame of disease, ignited by those from whose loins they sprung, and is hastening them to a premature tomb. How many are there, secluded from the enjoyment of that, which being deprived of by some scrofulous, pestilential, or other hideous deformity, renders them like isolated wanderers on the earth, and for ever forbids their participation in the main charm of existence—social intercourse. How many living specimens of human prototypes, in whom reason is obliterated, or never dawned, drag on an existence inferior in enjoyment to the forest-hunted beast, or the animal whose life is yielded for the nutriment of man. And are not the diseases that involve so calamitous a result, consumption, scrofula, gout, idiocy, or insanity, traceable in particular families, to the remotest periods of their ancestral records? And should not then a knowledge of cause and effect, like that just detailed, induce individuals about to fulfil one of the purposes to which they were certainly destined, for the perpetuation of their own race, if only from the pride of human nature, well to consider the result of such a consummation? The health of either party is generally omitted

among the categories bandied about preliminary to the completion of the other, though decidedly not more important, arrangements of the nuptial contract; or if it should not be, many infirmities, that are well known to descend hereditarily, are (granted in some cases not premeditatedly, but from ignorance of such a result) yet carefully concealed. Cutaneous blemishes, incipient tubercles, or a scrofulous predisposition, which may be likened to the germes of a fruitful plant sown in a torpid soil, lie in ambush, and await some genial transplantation to display their productiveness, which matrimony, by the analogous change which it effects in different constitutions, speedily encourages. In this manner, other morbid phenomena are aroused from their lurking place, whether it be in the brain, the lungs, or the blood, and transferred to those who succeed us.

I need not, therefore, waste a line prefatory to, or apologetic of, the following illustrative definition of health, by which any one with tolerable acumen may estimate the probable “worth of a life,” or, at all events, be spared the plea of ignorance, or misplaced confidence, when taking a step of such importance as wedlock. There are numerous means of calculating upon the durability of human life, by an examination of the countenance, the gait, the attitude, the form, the skin, the temperament, the breathing, the speech, the sleep, and in fact, to a practised professional eye, there is not much difficulty in observing some diagnostic mark, if sickness be secreted in the constitution. The countenance in health varies with the age. Health is indicated by a plump, not puffy or bloated state of the face, a fresh complexion, and an absence of that depression around and particularly below the eye, so observable in persons of sick health. The nose should not be “pinched,” as it were, at its junction with the face, nor should there be deep indentations, called furrows, or wrinkles, at the angles of the mouth or eyes, which rarely are manifested in healthy individuals, except they be aged through care or time. Many people part very reluctantly with each succeeding

year, and few conform to the outward symbols of age. The era was when age was honorable; now few aspire to it, and such is the deception that would be practised, that the coffin-plate is the only tell-tale.

If the teeth have dropped out or decayed, the lower jaw will be observed to be more elevated, the lips drawn inward over the gums, and the chin and nose approximating each other; the cheek bones will also be very prominent, and the skin thereon shiny and tightly drawn: these are pretty fair characteristics of disease, or old age. The temperaments modify the complexion. In the sanguine, it is florid and soft; in the bilious, dark and rigid; in the phlegmatic, lax and pallid; and the nervous is modified by its general union with the two former. In health, the countenance is expressive of contentment and gayety, which indicate a happy state of mind, and healthy condition of body. In ill-health, it is pale and expressive of languor and sadness, signifying discontent and nervous debility. Where asthma exists, or other nervous affections of the chest prevail, there is pallidness or lividity, a worn-down and distressing look, and in consumption, in addition to the above, there are alternately, on the slightest exertion, gentle flushings. A bluish tint of the skin denotes some organic affection of the heart. In dropsy, the countenance is bloated, or of a waxy puffiness; and in acute indigestion, there is a lividity of the lips, nose, and cheeks. A slow and cautious step, a bending of the body, a laxity and flabby feel of the muscles of the arms, chest, and lower extremities, a tumid abdomen, or a swelling of the feet and ankles, are no indications of health. Tremulous hands mark age, nervousness, or intemperance. Hurried breathing, palpitation of the heart, frequent attacks of perspiration, sleeplessness, are all symptomatic of weakness, hysteria, or disease. Persons subject to bleedings, are usually of a waxy paleness, and soft fibre. Allowances must be made for females during the menstrual period, whose complexion, at that period, being

less clear and fair, is marked by a dark areola around and below the eyes, the breath is slightly tainted, and a languor is evidenced in all their actions. A voracious or scanty appetite, a dry and shrinking skin, a furred and loaded tongue with indented sides, signify the digestive organs to be deranged. In long-standing dyspepsia, the nose, feet, and hands, are generally cold. Emaciation is an infallible diagnostic of disturbed health, and a bloated state equally characteristic. Fits, gout, rheumatic disorders, asthma, occasional brain affections, diseases of the bladder, &c., can not be considered as warranties of health.

Lastly, with respect to intemperance, the bloated appearance, the tremulous state of the muscular powers, the fetid breath, and the sunken eye, sufficiently identify the cause, to arrest all doubts on the subject. Where intemperance exists in married life, it is the bane of all comfort and enjoyment; and heaven help the unhappy partner of such a companion. There is but one consolation, that every indulgence of this insane practice tends to sap and break up the powers of the constitution, and hastens the close of such a union. The drunkard should be reminded, that “some leaves fall from the tree every time that its trunk is shaken;” and the dreary nakedness of winter is brought on, long before that season would have commenced in the regular course of nature.

IMPUISSANCE, OR IMPOTENCE.

UPON pursuing the consideration of the following infirmities of the Reproductive System, a few prefatory observations are requisite. Perhaps of all the physical powers possessed by man, few are subject to so much abuse as the procreative organs—certainly none are more required to be, in a hygiænic point of view, held in a sounder condition of health, for upon their tone and perfect structure hinge the happiness and perpetuation of the human race. In this age of luxury and sensuality, however, the world seems untiringly hunting after, and more or less obtaining, sexual gratification. There can be no doubt, that a greater amount of this species of sensual enjoyment is indulged in before manhood arrives, than can be obtained when man should be in his vigor. The writer is not insensible to the many alluring publications upon this topic, the end and aim of which are not, honestly, to afford relief to the diffident sufferer, but to add to his misery, by draining his pocket. Of legitimate publications, alas! there are but few, for it appears that qualified medical men have, from some prudish or other such notions, kept aloof from entering the lists. Were it otherwise, many an unfortunate victim might be spared from the avaricious clutch of the empiric; but invalids, from such a knowledge of the absence of fair and honorable references, are obliged to seek (or despair of) relief from the unworthy class in question. How far the tendency of the present work may lead to a reformation, is left for the reader to decide. The novelty of the present compendium may subject it to invidious suspicion; the author but invites comparison, feeling convinced that the contents best bespeak its legitimacy and usefulness.

“Increase and multiply,” is the scriptural text. “Plant trees and beget offspring,” is the apothegm of the Magi. The perpetuation of the species being, with the great Designer of the universe, an object of the first interest, all living beings are mentally and physically formed with a view to this great end.

In the human species, procreation is effected by a congress of the two sexes, and a variety of organs are provided, upon whose condition the due performance of coition mainly depends. The male is destined to furnish a peculiar fecundating secretion, and is accordingly provided with glands to prepare such fluid, and a conduit to convey the same to its proper destination; while the female, being the recipient, possesses an organ capable of effecting a mysterious yet specific change upon the fluid so deposited: a failure, therefore, in any of the structures alluded to, is followed by impotence or sterility.

Impotence implies the incapability of sexual intercourse; sterility, the inability of procreation; the causes of either of which may be deemed organic, functional, or moral. The following section will be devoted, firstly, to its consideration in its relation to the male.

SECTION I.

IMPOTENCE AND STERILITY OF THE MALE.

WHERE the hindrance to cohabitation arises from organic defect, congenital malformation, or diseases of some of the organs of generation, the disqualification may generally be considered absolute or irremediable. It is remarkable, however, to what extent mutilation or disease may occur, without total annihilation of the procreative powers; the smallest remnant of the penis, for instance,

capable of entering the vagina, provided the testes be sound, being sufficient for impregnation.

A learned lecturer on medical jurisprudence gives it as his opinion, that the smallest quantity of seminal discharge, deposited in the lower part of the female generative apparatus, *provided the female be apt to conceive*, is sufficient for impregnation: and it is astonishing how *minute* a quantity of this plastic agent is necessary for that purpose in some species of creatures. Spallanzani took three grains by weight of the male fluid of the frog, and mixing it with seventeen ounces of water, found that impregnation of the eggs was produced by as much of this exceedingly weak mixture as would adhere to the point of a fine needle.

Although, in human formation, it is not essentially necessary that the male material should be deposited in the upper part of the vagina of the female, yet there is little doubt that the deeper entrance of this substance conduces to impregnation.[13]

Malformation of the genital organs has already been stated as a cause of impotence. Such cases furnish much uneasiness at first, but are easily relievable. I have met with many instances, where consummation has been prolonged from months to years, which a slight knowledge of the functions of the parturient organs might have relieved in a few days; and with respect to the latter, it may be pardonable to mention that, as the husband should be the first to instruct his companion in what is to be expected, but little disappointment will be experienced, except with the vicious and unworthy.

There is room for much ingenuity in these matters; and as marriages are made for better or worse, there exist powerful inducements to resort to the contrivances of the ingenious and humane.

The following case of malformation fell under my own observation; the adjoining delineation is a true picture of the circumstance.

Described in surrounding text

The penis, *b*, at its under surface, was adherent, from birth, to the scrotum *c*, consequently, when erection ensued, it presented the form of a half circle; the urine escaped near the root of the penis, *a*. The penis itself was impervious, but sensible to the amative passion. The gentleman submitted to a division of the fold which united the penis with the scrotum, which former, on being thus released, assumed its proper position; sexual congress was thereby attainable, and during erection the orifice of the urethra was drawn sufficiently up to allow of the ejection of the semen into the vagina. Of the ultimate result I have yet to hear.

Described in surrounding text

It may appear almost incredible, that the sketch here presented can be a true one of the penis and testicles of a young man upward of 19 years of age. No less was it a source of wonderment to myself than it may afford a doubt to others. I carefully examined the individual, and saw him urinate; the stream was certainly small, but surprisingly large for so minute an organization. He was quite unconscious of amative feeling; the testicles were distinctly perceptible by the finger, but they certainly were not larger than cherry kernels. The young man, in other respects, preserved the male attributes; he had a slight beard, and his voice, though not powerful, was by no means effeminate. I had several interviews with him, and then lost sight of him.

I have elsewhere portrayed a relaxed state of the testicle, called varicocele: the accompanying draught exhibits the same in an aggravated form. The patient possessed but little amative power, and had also a thickened condition of the prepuce, which produced a perfect *phymosis*. The case, however, under treatment became considerably relieved. The phymosis required a division of the prepuce, an operation productive but of little and momentary pain, or rather twinge, and healed in a few days. Children are sometimes not procreated for want of sufficient erectile and consequently penetrative power of the male organ. Much and often needless misery results from this infirmity.

Described in surrounding text

The loss of erectile power is occasioned through more causes than one. Erection ensues independently of the will or imagination, as instanced on awaking in the morning—the cause is most probably a distended bladder; the phenomena may be a sympathetic irritability of the muscles of the perinœum, especially the erectores; there is a general pelvic disturbance, the nervous excitement is increased, and the rush of blood (obedient to that excitement) is sent to the penis: such, I believe, is the sympathy between all these structures. The will exercises the same, and the results of the imagination do not materially differ; consequently, where the mind fails in producing these effects, local excitants may be found to supply its office hence the usefulness of art in combating the eccentricities of nature. The mere handling of the testicles kindles desire, and in like manner, stimulatives applied over the scrotum generate amative heat.

A curve of the penis is sometimes an obstruction to connubial intercourse; this arises from adhesion or obliteration of the cells of the *Corpora Cavernosa* on one side only, preventing the uniform flow

of blood into those structures, and consequently the equal distention of the penis. The curve is of course laterally, and occasions in the act of coition pain to both parties, or the power of penetration is insufficient. Occasionally this malformation is only temporary, and consequently remediable.

Franck gives an instance in which so considerable a portion of the penis had been carried away by a musket-shot, that when the wound healed, the organ remained curved, and yet proved adequate to the performance of its functions.

An opinion formerly prevailed, that the existence of the testes was unnecessary for effective copulation; but that is no longer a point of dispute: their absence, whether natural or artificial, invariably rendering the invalid unfruitful. It is not, however, to be inferred, that a person is impotent in whom no testicles are discovered in the scrotum, instances occurring where they do not descend from the abdomen (their embryotic abode) through the whole period of life. One testicle, provided it be sound, is sufficient for procreation. Complete extirpation of the testes, although destructive of procreative powers, does not extinguish venereal desire. Where the genital organs exist, but are malformed, or pathologically altered, their virility may be nullified.

The most frequent malformation is in the *urethra*, which sometimes opens in the perinœum—the part marked *a* in the annexed cut; at others, on the dorsum of the penis, and not unfrequently under its surface: so long, however, as the orifice opens in that portion of the penis which enters the vagina, so that the *emissio seminis* may be therein deposited, impregnation may and will take place; and even in cases where artificial means have been employed to convey the fluid.

Described in surrounding text

A contracted state of the prepuce, its adherence to the glans, or that condition of it termed phymosis, form impediments to the emission of the semen which can only be removed by an operation; and if that be neglected, the evil continues through life.

Among the diseases which occasion sterility in the male, those affecting the penis and those incident to the testicles may be enumerated. With regard to the former, there often exists an excess or deficiency of muscular or nervous energy, inducing *priapism* or permanent erection in some instances, or paralysis or permanent flaccidity in others. In *priapism*, the erection is so vigorous, and all the parts so distended, that the semen can not pass into the urethra; while in *paralysis*, from some inaptitude of nervous or muscular powers of the genital organs, the *corpora cavernosa* receive but a limited supply of blood, insufficient to create erection, or provoke a seminal discharge.

Strictures of the urethra are among the barriers to sexual intercourse; but happily, only in extreme cases, where the urethra is all but closed, so as to oppose the passing of the finest bougie.

The testicle is subject to a variety of diseases, wherein such a relaxation or obliteration of its structure ensues, that the seminal fluid is no longer formed: and where both testicles are alike affected, sexual desire is most usually wholly extinguished—the smallest portion, however, of either gland remaining uninjured, may still be capable of secreting semen sufficient for impregnation.

Impotence may follow accidents to the testicles, such as produced by a bruise; or even a testicle, which shall have become inflamed from clap, shall become so chronically hardened as to be useless. Bruising the testicles was the mode adopted by the oriental courts for destroying masculine efficiency in the attendants of the harem.

There are certain conditions of health in which, although the genital organs may be perfect, yet, owing to some constitutional

frigidity, there is an incapability of erection. The offspring of too young, or very aged, infirm persons, or of those worn down by debauchery, are but too common instances.

The appearance of persons of this temperament is thus described by a French writer: “The hair is white, fair, and thin; no beard, and countenance pale; flesh soft and without hair; voice clear, sharp, and piercing; the eyes sorrowful and dull; the form round, shoulders narrow; perspiration acid; testicle small, withered, pendulous, and soft; the spermatic chords small; the scrotum flaccid; the gland of the testicle insensible; no capillary growth on the pubis; a moral apathy; pusillanimity and fear on the least occasion.”

The most frequent cause of impotence, at that period of existence when man should be in the zenith of his procreative power, is in a general weakness of the generative organs, induced by too early an indulgence in coition, the pernicious and demoralizing crime of masturbation, or the abuse of venereal pleasures. In these cases, erection will not take place, or but feebly, although the mind be highly excited by lascivious ideas. The erector muscles are paralysed from over-use, and the semen, if any is secreted, from the lax and withered state of the testes, is clear, serous, without consistence, and consequently deficient of prolific virtue. Sometimes there is a want of consent between the immediate and secondary organs of generation; thus, the penis acts without the testicles, and becomes erected when there is no semen to be evacuated; while the testicles secrete too quickly, and an evacuation takes place without any erection of the penis; the latter disappointment is of extensive prevalence.

Impotence is sometimes occasioned by particular diseases during their continuance, such as nervous and malignant fevers; while, strange to relate, an opposite effect is sometimes produced by other diseases, such as gout and rheumatism, hæmorrhoids, &c.; and instances are on record, that others produce such a change in the

constitution, that an impotent man may find himself cured of his impotency on their cessation.

Of all the functions of the animal economy, none are so subservient to nervous influence as those of generation, which, when the organs are perfect, and respond not to the natural application of them, the cause may be classed among those impediments termed moral.

As the parts of generation are not necessary for the existence or support of the individual, but have a reference to something else in which the mind has a principal concern; so a complete action in those parts can not take place without a perfect harmony of body and mind, that is, there must be both a power of body and disposition of mind; for the mind is subject to a thousand caprices which affect the action of these parts.

As these cases do not arise from real inability, they are to be carefully distinguished from such as do; and, perhaps, the only way to distinguish them, is to examine into the state of mind respecting this act. So trifling often is the circumstance which shall produce this inability depending on the mind, that the very desire to please shall have that effect, as in making the woman the sole object to be gratified.

SECTION II.

IMPOTENCE AND STERILITY OF THE FEMALE.

A FEMALE may be impotent, and not sterile; and sterile, but not impotent. Impotence can only exist in the female, when there is an impervious vagina; but even this condition does not necessarily infer sterility, many cases being recorded, where the semen, by some

means or another, through an aperture that would not admit a fine probe, has found entrance to the vagina and occasioned impregnation.

Impotence may arise from a malformed pelvis, the absence of a vagina, adhesion of its labia, unruptured hymen, or one of such strength as to resist intromission. In the two former instances, sterility is irremediable; but art, and indeed nature, may overcome the latter impediments.

Were these pages intended only for the surgery, instead of the public, the annexed wood cuts would be unnecessary, medical men being conversant with the inconvenience in question; but all the world not being blessed with similar anatomical information, the sketches are presented. The upper one represents the relative situation of the female urethra (1), and the contracted orifice of the hymen (2). In the cases of hardened obstruction, where the hymen assumes an almost cartilaginous texture, the attempts at marital consummation are fruitless, and often give rise to severe local inflammation. The infirmity, on the other hand, is easily and painlessly removable by surgical skill. The lower drawing represents a hymen with two apertures (2), which, if broken down by violence, leaves a troublesome lacerated wound. The surgeon’s assistance is indispensable.

Described in surrounding text

Described in surrounding text

Where hermaphroditism exists, the sex is usually more masculine; it is a vulgar error to suppose that the two sexes exist entire, and that they are capable of giving and receiving the offices of married life. The present sketch is merely introduced to show the more frequent

malformation. The penis exists, but has no urethra: below is an opening resembling the vagina of the female, which is but of short length, at the bottom of which (in fact, the perineum) the urethra opens. The testicles are entire, and the individual from whom the draft was taken possessed somewhat the desire of the male, without the capability of penetration: the penis, when excited, from its attachment to the lips of the imaginary vagina, and also from its contracted form, presenting merely a kind of bulbous tumor. Even where hermaphroditism more closely partakes of the female, conception never takes place; hence all such parties are sterile.

Described in surrounding text

Nature, as if to atone for denying to some the delights of maternity, has been occasionally doubly bountiful to others. The annexed drawing exhibits a section of a double uterus. Cases are on record, where both have been impregnated.

Described in surrounding text

In the instance of a deceased married female, that fell under my observation, the uterus or womb presented the following appearances: The usual cavity was discoverable, but it was filled with a *cheesy*-like substance, and also there were some ulcered-looking caverns filled with the same material. This female, while living, endured continued pains in the uterine region, was insensible to marital physical enjoyments, sterile, although a wife several years, and the constant sufferer from a vaginal discharge. Her death was consequent upon a severe cold that ended in consumption.

Described in surrounding text

Leucorrhœa is often attended with barrenness; at all events, it is very debilitating, and thus impedes conception. A notion once prevailed, that women who did not menstruate could not conceive; it has since been disproved, except in those instances where menstruation never occurred: a single monthly discharge indicates an aptitude for conception. It is observed that barren women have very small breasts. Women who are very fat are often barren, for their corpulence either exists as a mark of weakness of the system, or it depends upon a want of activity in the ovaria: thus spayed or castrated animals generally become fat. The same remarks apply to the male kind, who are outrageously corpulent. There are many other peculiarities in matrimonial life, fertile subjects for speculation; such as, for instance, the lapse of time that often occurs after marriage before conception takes place, and the space between each act of gestation; the solution of which may be, that these occurrences are modified by certain aptitudes, dispositions, state of health, &c.; the same may explain why persons have lived together for years in unfruitful matrimony, and who yet, after being divorced, and marrying others, have both had children.

It is not always that the most healthy women are more favorable to conception than the spare and feeble. High feeding and starvation are alike occasionally inimical to breeding. The regularity of the “courses” appears principally essential to secure impregnation; and the intercourse is generally held likely to be the more fruitful that takes place early after that customary relief.

Women in health are capable of bearing children, on an average, for a period of thirty years, from the age of fifteen to forty-five; but their incapacity to procreate does not deny them the sexual gratification, it being well accredited, that women upward of seventy years of age have been known, who have lost but little of the

amative inclination and enjoyment which they possessed in their early days. Men certainly possess their procreative power to a longer period, it being common for men to become fathers at eighty, ninety, and one hundred—old Parr becoming a parent at the age of one hundred and thirty. Women rarely fall pregnant beyond fifty.

Some females endure intense pain during coition, so as to occasion fainting or great exhaustion. Such suffering is usually traceable to internal ailments—such as *piles*, *fistulous openings* between the *rectum* and *vagina*, *ulcerated wombs*, *vaginal tumors or abscesses*. Cases continually present themselves, where, on the removal of the cause, the effect is cured.

The number of children that women have individually given birth to is very variable. It is attested, among a collection of facts of this nature, that one female gave birth to eighteen children at six births; another, forty-four children in all, thirty in the first marriage and fourteen in the second; and in a still more extraordinary case, fifty-three children in all, in one marriage, eighteen times single births, five times twins, four times triplets, once six, and once seven.[14] Men have been known to beget seventy or eighty children in two or more marriages. With regard to the average proportion of male and female births, it appears that the males predominate about four or five only in one hundred. The average number of children in each marriage is, in England, from five to seven.

To a continual irritability of temper among females may be ascribed infertility. Independently of ever fostering domestic disquietude, it produces thinness and feeble health; and, where pregnancy does ensue, it most frequently provokes miscarriages, or leads to the birth of ill-conditioned and puny offspring.

Perhaps one of the most indispensable and endearing qualifications of the feminine character is an amiable temper. Cold and callous must be the man who does not prize the meek and

gentle spirit of a confiding woman. Her lips may not be sculptured in the line of perfect beauty, her eye may not roll in dazzling splendor, but if the native smile be ever ready to welcome, and the glance fraught with clinging devotion, or shrinking sensibility, she must be prized far above gold or rubies. A few moments of enduring silence would often prevent years of discord and unhappiness; but the keen retort and waspish argument too often break the chain of affection, link by link, and leave the heart with no tie to hold it but a cold and frigid duty.

SECTION III.

TREATMENT OF IMPOTENCE.

In venturing upon this part of the subject, it will be as well, first, to distinguish those cases that are curable from those that admit of no relief. Among the latter may be enumerated all those arising from an original or accidental defect in the organs of generation. Where, also, old age is the cause, little is to be done: medicines are of no avail, and temporary stimuli not unfrequently worse.

That certain medicaments, aliments, and so forth, do possess an *aphrodisiac* power, is not to be denied; but when adopted by those weak beings, whose bodies are either worn out by age or excess, and who pin their faith to such restoratives, the little remaining sensibility in their frames, the source of life and energy, can not sustain the shock of reaction; and the result is, total annihilation or death.

From what has already been stated, it will be perceived, that the mind exercises no inconsiderable influence over the functions of the organs of generation: and as the state of the mind depends upon the

particular circumstances under which it may be placed, any attempt to establish a code of instructions, applicable to every instance in which a sportive fancy, or disturbed imagination, constituted the prevailing cause, would be abortive, and might be considered as pandering to a vicious and depraved appetite, whereas the object of this treatise is only to encourage the diffident, to assist the afflicted, and render a service to those legitimately deserving it.

As excess in sexual indulgence impairs the generative power, no less injurious may entire abstinence be considered. The due exercise of an organ tends to its perfection, as the neglect or misuse of it, to its impairment. Besides, there is not any wonderful virtue in abstaining from the proper use of the sexes. Why, in the name of morality, were such powerful impulses and desires bestowed upon us? Why were such wonderful organizations given to us, if they were not originally designed to be used by every one who is possessed of them? Society, in its present form, is not perhaps constructed with a philosophical regard to our own natural instincts, and our own original rights.

Among the causes that induce *impuissance*, or that distressing condition known under the cognomen of *nervous debility*, there is not one more reprehensive than the unworthy and pernicious practice of self-abuse. It is much to be regretted, that some medical writer, of talent and estimation in society, has not turned his attention to the subject, and given the influence of his name in denouncing to the world the misery and devastation which are the unerring consequences of this sordid and solitary vice. It is indeed an unpleasant and thankless task; and there probably exists in most minds, an unwillingness to enter upon a subject in which there is so much difficulty in selecting language sufficiently appropriate to exhibit the folly in its true colors, without offending the ears of the chaste and virtuous.

But a question of such paramount importance should not be sacrificed to any false and prudish notions of delicacy; I shall therefore offer such observations, as I may think calculated to check the progress of a vice, that has done more to demoralize the human mind than the whole catalogue of existing causes besides. It may be deemed an exaggeration, when it is stated that full three fourths of the insane owe their malady to the effects of masturbation: but the assertion is corroborated by one of the first writers on medical jurisprudence, and is fully borne out by the daily experience of proprietors of lunatic asylums. The practice of self-abuse usually has its origin in boarding-schools, and other places where young persons congregate in numbers; and there are few of us who may have observed the vice practised, although it may be unpleasant to avow as much, that could resist the contamination.

"One sickly sheep infects the flock,
And poisons all the rest."

And thus it is, though ninety-and-nine be pure and spotless as the driven snow, if the hundredth be immoral, the poison is soon disseminated, and the whole flock become initiated into a vice, which, if indulged in, will blast their intellectual faculties, and probably consign them as outcasts of society; rendering them slavering idiots, or the inmates of a lunatic asylum. It is not only in private schools that this sin rages, our public foundations and colleges are not exempt from it. The heads of our universities are particularly scrupulous in driving from their neighborhood the frail fair, lest they should contaminate the votaries of learning; while a vice far more degrading in its practice, and infinitely more baneful in its effects, rages within the very sanctuaries of classic lore. Many a brilliant genius has sunk into fatuity beneath its degrading influence. Loss of memory, idiocy, blindness,[15] total impotence, nervous debility, paralysis, strangury, &c., are among the unerring

consequences of an indulgence in this criminal passion. I need not bring a greater proof of the dire effects of an indulgence in the practice of masturbation, than the deplorable state of mind to which it reduced one of our greatest poets.

The treatment of this delusive and mentally annihilating propensity, falls equally within the province of the philosopher and the physician. Without a total abandonment of the practice, the case is hopeless; and he to whom the consequences shall have been portrayed and heeds them not, is unworthy of our sympathy, but deserves the evils he entails upon himself.

Now, as the consequences of all criminalities continue to ensue so long as the provocative be kept up, it is very evident that, as a first step toward the restoration of order and health, the cause must be removed or withheld. The mere will or resolution is seldom sufficient: virtue, like vice, has its allurements, and those belonging to the former must be called into requisition as antagonists to the snares of the latter. Physic can not check bad principles, or bad indulgences. No method is or can be superior to that full employment of the mental faculties on noble and intellectual subjects, on objects worthy the high ends for which Nature has adapted them. And though the difficulty will be great in inducing new and good habits, to the exclusion of such as are unworthy and degrading, yet the effectual accomplishment of such a resolution is not of uncommon occurrence; and the sufferer may be placed under circumstances where good habits may be more frequently called into action naturally, to the exclusion of vicious propensities. The time should be well filled, so as to leave no room for flying to the various usual sources of amusement that fill up the life of the thoughtless and gay. Every hour and every minute should be provided for, so as to exclude the admission of idleness and sloth, the forerunners of mental and bodily disease. Studies connected with education should be encouraged. Modern languages have a great claim on the

consideration of all who are engaged in business to any extent, and are of incalculable use after they have fulfilled the immediate end for which their culture is here recommended. The various sciences bearing more or less on the pursuits and employments of every man, are earnestly recommended to the choice of the unfortunate victim of sensuality. Geology and botany would call him into the healthful fields, or fill up his time by his fireside, in studying the many excellent works on those subjects: the still higher utility of chemistry, as being made of practical use in almost every business, and demonstrating the else unintelligible phenomena of a multitude of natural processes and changes, may be held up as another inducement to call forth his best energies.

Travelling, to those who can afford the expense or the time, is one of the best means of conquering this baneful habit. The numerous objects thereby presented to the eye of the invalid in the manners, government, and productions of art and nature, of the countries he visits, are an incessant source of pleasing and useful excitement, and can not fail, especially if the traveller be accompanied by an intelligent and moral friend, to weaken and eradicate the bad impressions of the past.

To diverge, and at the same time to conclude this part of the subject, I have only to offer a few remarks relative to the medical and therapeutic treatment of those cases of impuissance, that age, disorganization, and total incapacity, do not exclude from consideration. I have already expressed my belief that generative imbecility is consecutive to general debility; hence, whatever tends to improve the latter, tends also to remove the former. The diet, therefore, should be full and generous, with a liberal proportion of spices; but all stimulating liquids, such as wine, brandy, and the rest, should be avoided.

Bathing, in its various forms, constitutes no unimportant feature in the treatment; the cold plunging, the tepid shower, the douche, the

warm and the vapor baths, possess their several influences. The various medicines that come under the denomination of aphrodisiacs, are not wholly uninfluential, such as stomachics, aromatics, gums and balsams, oils, musk, opium, cantharides, strychnine, and others; but as their administration can only be permitted under professional direction, no real utility can follow any specification or formulary of their proportions.

OTHER FORMS OF SEXUAL DEBILITY.

INVOLUNTARY seminal emissions are oftentimes very serious, distressing, and intractable. They may be produced in two ways—from continence, or by a high degree of morbid irritability or weakness. The latter is by far the more frequent; for the treatment of the former is obvious, and generally effectual. The difference between seminal discharges in persons of full health, and those morbidly weak, is very opposite: in the former it is consequent upon an erection, followed by an act of coitus; while in the latter both are absent. The general debility in the generative system, inseparable from morbid irritability, occasions both a failure in the erection of the penis, and an inability to retain the fluid in the secreting organs. There is no doubt that this disposition to seminal emissions, conjoined as it generally is with more or less deficiency of the *vis virilis*, is too often owing to the habit of self-abuse in early age. The testes usually wither in these cases, and the patient becomes nearly, if not entirely, impuissant. Sometimes these cases are attended by an excessive irritability of the bladder, accompanied by pains in the loins, kidneys, &c. Their treatment consists in taking nutritious and digestible food, to impart strength and invigorate the constitution. Stimulants are at the same time to be carefully avoided, except where great languor and lassitude prevail. Abstemiousness in liquids is to be enjoined. Habits of a relaxing nature should be avoided; the patient, instead of sleeping on a soft, downy bed, should lie on a firm mattress; the air of the room should be preserved at a moderate temperature, and but few hours should be allotted to sleep; he should pass much of his time in the open air in a cool atmosphere;

taking frequent and moderate exercise, so that it does not occasion fatigue. Cold bathing is a very important and essential part of the treatment to be observed; the daily use of the *bidet*, or the frequent application of a towel, dipped in cold water, to the testes, applied twice or thrice a day, or the *douche bath*, will be found of much service. To prescribe formulæ for the various temperaments subject to this affection would be to transcribe all the tonics from the pharmacopœia: they are severally useful, but the various preparations of iron surpass all others. During this treatment the state of the mind should not be neglected: no lascivious idea should be for a moment encouraged, nor should the imagination be permitted to wander over the works of fiction or romance in any way connected with matters of love.

It not unfrequently happens that patients affected with these complaints are apt to despond, and become miserably depressed in spirits; to remove which, every recreation should be encouraged to prevent them pondering over their own situation, and, if possible, to divert the mind from gloomy ideas: lively and agreeable company should be courted; theatres, concerts, or any other rational amusement consonant with the principles of the patient, should be visited or pursued, and by an uninterrupted perseverance in this mode of treatment for a sufficient length of time, I have seen the most beneficial results arise. The great art and difficulty in treating these cases consist in giving tonics to a certain extent and no further —avoiding excess, whereby we stimulate and produce fever; or depletion, and induce debility. Early hours, fresh air, exercise, attention to diet, the shower bath, topical application of cold, with properly regulated sexual intercourse, are rarely ineffectual in curing the disease.

I could narrate many instances wherein the sexual desire declined on the intervention of ordinary illness; any powerful mental solicitude will suffice, but such a cause is commonly remediable. Where the

cause is traceable to excesses and pernicious indulgences, if not accompanied by disorganization, hope should not be abandoned; but the patient should not cling to, or hang his reliance upon, hole-and-corner speculators, or their advertised specifics. He should consult men legitimately engaged in the profession, in which, perhaps, more talent and honor are concentrated, than in any other department of science.

ON PILES OR HŒMORRHOIDS.

As this disease is generally considered to be of a delicate nature, and one about which the afflicted are unwilling to speak, we shall say a few words on them. Piles constitute a disease that may be very slow or very rapid in its progress. The patient complains of an occasional itching or soreness at the rectum after an evacuation, more particularly if subject to constipation, or if he be an irregular liver: when, after a while, he will be surprised on discovering, subsequent to some straining effort, a knot of elastic but irregularly formed tumors, of a size varying from a hazel-nut to a horse-bean, springing out apparently from the rectum, that in a few days, if they continue, will become sore, and probably be attended with a discharge of blood.

1. Rectum.
2. Hœmorrhoids.
3. Perineum.

Another patient will experience similar symptoms, as regards the pain, swelling, and discharge of blood, except that they will be increased in severity, and be more transitory in their appearance and stay. Upon examination, a perceptible difference will be discovered. In the former instance the tumors will be seen to proceed from the outer edge of the rectum, and will be found to be covered with the common skin. Professional men designate this form of the disease “External Piles.”

1. Inner part of Rectum.
2. Orifice of Rectum.
3. External Piles.
4. Internal Piles.

In the latter, the tumors are, as it were, squeezed out of the rectum, and swell in a very short space of time to an enormous size. They are of a much more vivid blood-red color, and will be found to be covered only by the lining membrane of the lower gut. These are called “Internal Piles.”

1. Inner part of Rectum.
2. Orifice of Rectum.
3. Internal Piles.

Now piles are nothing more nor less than *dilated veins*, like varicose veins in the leg or any other part. The office of veins is to receive the surplus blood of the arteries, after having parted with that necessary supply for the nourishment of every structure they are severally distributed to, and to convey it back to the circulating organ, the heart—and the mesenteric hœmorrhoidal veins, from their dependant and confined position, the circulation in and above them being liable to so many interruptions from the frequent hardened state of the fæces in the rectum, become distended with blood, which acting really like a wedge, dilates them in time to the size we meet them. On the removal of the cause, the blood flows on, and the swelling subsides, and the patient feels no further inconvenience until a recurrence of the pressure. After repeated attacks, the veins become inflamed, and lymph, a sort of defensive mucus, is “thrown out” on the cellular membrane covering the veins, and becomes organized into an indurated texture, which increases with each

attack of inflammation, and at last gives them that fleshy appearance which resembles a specific growth (see annexed cut).

Described in surrounding text

The distinction between External and Internal Piles is as follows: In both instances the same veins are diseased. In external piles, the lowermost portion of the hœmorrhoidal veins are dilated, and are thrust by the outer side of the rectum, carrying before them the common skin, which dilates and constitutes the external coat of the piles. The rectum is a portion of gut of four or five inches in length, and of nearly a uniform width; the lower end, constituting the orifice, is, as it were, tied round with a contracting and yielding band of muscular fibres, forming a muscle called the *Sphincter Ani*. It is a muscle of great power, and, from its connexion with the neighboring muscles of similar strength, helps to afford that support to the contents of the pelvis, that otherwise would descend, and be always forming a projecting tumor. External piles consist, then, of a protrusion of the hœmorrhoidal vein or veins between the cellular union of the sphincter with other muscles, constituting, in fact, a hernia or rupture in the perinœum. Internal piles is that condition of the hœmorrhoidal veins, where, from their dilatation, they become protruded with the fæces, when, from the contraction of the sphincter acting like a ligature, they can not regain their situation until emptied of their contents. Inflammation soon ensues, and the various changes I have and shall hereafter consider take place.

Having stated the cause of piles, namely, pressure on, and thereby prevention of, the circulation of the blood through the hœmorrhoidal veins, it follows that persons mostly annoyed with constipation must be the most likely to be afflicted with piles; hence, free and intemperate livers, great wine-bibbers, feeble and relaxed

constitutions, those, again, who take little exercise, and pregnant women, and women who have borne many children, seldom escape them. It is rarely that piles attack people in the lower class of life, and those who have to work hard for their livelihood and are much in the open air, which accounts for the prevalence of this disease in the upper ranks of society. The treatment of piles is very simple, if proceeded with at the commencement of the complaint, the grand object being to prevent constipation. An excellent adjunct to the cure of incipient piles, is the warm bath. Its tendency to overcome local congestions, and thereby equalize the circulation of the blood, is well known. The best medicine a hœmorrhoidal patient can take is Turkey rhubarb, to be chewed freely, or castor oil, in doses of one or two teaspoonfuls every morning, or some mild electuary, which should be continued until the piles subside.

The diet during this treatment should be temperate and laxative. Fruits should be used freely, and also coarse bread, rye and Indian mush and molasses; wine and exhilarating stimulants being avoided, and, where admissible, as much out-door exercise taken as possible. An excellent plan is also to inject half a pint or more of cold pump or spring water up the rectum every morning, and suffer it to remain for twenty or thirty minutes, if possible. Where the piles have been of several days' continuance, and are very much swollen, puncturing them with a needle, and so relieving the tension by evacuating, or at least diminishing their contents, that the obstruction shall be overcome, is serviceable. After this, pledgets of lint dipped in cold water, the patient preserving the horizontal posture, may be applied, or an astringent lotion may be used.

Where there is much swelling and inflammation, leeches applied to the neighboring parts will afford relief. It is impolitic, although some surgeons recommend it, to apply leeches on the tumor, as the bites are oftentimes very difficult to heal. Where the piles will admit of it, attempts should be made to empty them, and press them to

their places, after which a pad may be worn to prevent their descent. In the commencement of the disease, where there is much heat and itching, a mild and astringent ointment will prove of considerable utility, and a wash of powdered opium, dissolved in flaxseed tea, will relieve pain and soreness.

A very excellent and practical method in the treatment of piles (the internal I am now speaking of) is to deposite a pear-shaped bougie or pessary in the rectum, and suffer it to remain as long as possible. The wearing of bougies gives no pain or even uneasiness, and the patient may pursue his or her ordinary occupation without hinderance: the bougie should be worn from one to several weeks. It affords constant pressure against and support to the dilated veins, and enables them to regain their tone and strength; and I have known numerous instances where a lasting cure has been effected. One of the most alarming consequences of piles is hœmorrhage or bleeding; and it is really wonderful what an extensive loss of that fluid a patient can sustain. Day after day, and week after week, have I known instances of constant bleeding from internal piles, by which the constitution of the patient has been almost broken up. This symptom mostly prevails with females, nor is it limited, although more prevalent, to those who are pregnant. There is naturally a strong objection on the part of a delicate and susceptible female to submit to a professional examination, and consequently it is rarely done, until the urgent necessity of the case, lest death should ensue, induces the patient to consult her medical adviser, that he becomes acquainted with the real nature of the case. Where there is ulceration of the piles, and they are very numerous, and the bleeding frequent and profuse, the only effectual cure is their removal. Where the operation is objected to, the next method is to employ astringent enemata, which must be regulated by the medical attendant.

The celebrated Weir’s balsam (248½ Grand Street) has the credit of effecting miraculous cures. It is a medicine of deserved repute,

and ranks high with professional men. Pitch pills have been extolled.

Now, where piles, both external and internal, do not yield to the means suggested, or the patient may not think proper to avail himself of them, the next best step is their removal; and this is done either by excision or by ligature. Both processes are safe in the hands of a medical man, and are neither attended with any pain nor suffering worth notice.

Among the annoyances incident to the rectum, is an occasional preternatural contraction of the sphincter muscle. It is generally the consequence of local irritation set up by purgatives, by which the orifice becomes sore and excoriated, which, if not timely relieved, ulcerates, constituting cracks also, and in process of time a portion sloughs away, and the adjacent edges unite, and thereby diminish the calibre of the opening. This disease *may* be congenital, that is, the individual may be born with a contracted or narrow sphincter. The treatment, naturally enough, is to dilate the orifice, which is to be attempted by the introduction of bougies, after the mode advised for the cure of stricture, of which this in reality is a form. The cracks of the sphincter are occasionally obstinate to heal; and the ulceration will spread within the rectum. When that is the case, the application of any stimulative ointment will promote a healthy action.

In inveterate cases division of the sphincter is necessary, which is to be done with a scalpel, and the incision should be made from within laterally, by which injury to the perineum is avoided. The operation is very simple, and by no means painful or dangerous: the cure is perfect. Appropriate medical treatment must not be neglected.

PROLAPSUS OF THE RECTUM.

Described in surrounding text

THIS disease is often confounded with piles; and as patients are generally diffident in submitting to an examination, any extraordinary protrusion of piles they denominate a falling of the gut. *Prolapsus Ani* is distinguished from piles by the muscular coats of the intestine descending with the mucous membrane, and forming a bag, like a pendulum, to the length of many inches; the rectum, in fact, becomes everted, as we see the finger part of gloves when turned inside out; and the inner membrane being highly vascular, and the vessels in a congested state, it assumes a blood-red appearance. The case is here well portrayed. Of course the disease occasions much inconvenience and if not abated by appropriate treatment, serious consequences ensue. Piles are most commonly the cause of prolapsus, when, from the frequent and hard straining, the gut at last descends, bringing the piles with it, which will be seen winding around the upper part. When that is the case, the best treatment is first to apply a ligature round the hœmorrhoids, and then return them and the rectum together. Where the gut protrudes from relaxation of the sphincter, the treatment depends upon local support, for which there are many contrivances.[16] Astringent injections should also be used to give tone to the parts, and medicines given to render the alvine evacuations less hurtful. Children are very liable to prolapsus, but with them a return of the fallen gut, and a brisk purgative is all that is needed to prevent a repetition, provided proper attention be paid to the bowels afterward—a disturbance of the latter being, in most instances, the cause. Where a rectum has been for a long time

the seat of disease, excrescences are apt to arise, resembling warts: they may be removed without much pain, and with perfect safety.

STRICTURE OF THE RECTUM.

THE rectum, it is presumed, is known to be the lower portion of the intestines that leads to the outlet called, in domestic language, the fundament. Now some writers assert that the rectum answers the same purpose to the bowels generally, as the urethra does to the bladder, while others contend that it is a receptacle for the fæces previous to their expulsion. We are all sensible, I think, that it must answer both purposes; but it is also evident that it is employed more for the former than the latter purpose. The moment the rectum is full, there is a desire to empty it, which is the best proof of its office; but circumstances oftentimes forbid us, for even hours, obeying the summons, which establishes its capability as a recipient. Well, the rectum, consisting of muscular and membranous coats, similar to the urethra, is alike subject to irritation, inflammation, and ulceration, and imitatively gives forth morbid and other secretions. The rectum, from its situation and office, is very obnoxious to disease; and in addition to those already enumerated, it is extremely liable to become strictured.

Neither age nor sex are exempt from this strictural change, although it more usually selects the grown up and female portion of society. It is, generally speaking, the consequence of constipation, or the reverse—diarrhœa or dysentery—or it may follow in the wake of child-bearing. Piles are a frequent precursor. The ordinary symptoms are at first a slight difficulty in voiding the fæces, which assume the form of the passage through which they have to pass, presenting at one time a flattened tape-like shape, at others a spiral appearance, and again the natural form, but of very small diameter.

As the disease advances, the pain increases, upon going to the water-closet, and after the act may be observed a small or copious discharge of mucus, or blood, from the anus. If the bowels be constipated, there is necessarily a great deal of straining during fæcation, that soon establishes spots of inflammation that rarely resolve, but run on to ulceration; small lodgments then of fæcal matter take place in the cellular membrane; and without detailing the pathological phenomena, it may suffice to say, that sooner or later the whole rectum becomes diseased, and fistula, with its attendant miseries, lends a speedy help to close life's brief pilgrimage.

Patients afflicted with rectal diseases lose flesh rapidly. From the constant pain and annoyance they endure, their general health gets undermined, the digestion becomes faulty, the countenance flags and looks care-worn, hectic fever awaits the break-up of functional regularity, and a lingering exhaustion closes the scene.

Stricture of the rectum is a curable disease; but the less complicated, the greater are the chances of recovery. The principles of treatment bear a near resemblance to those for stricture of the urethra. After having ascertained the situation and size of the contraction, a proper-sized bougie may be introduced, and suffered to remain as long as it occasions no inconvenience. The introduction should be repeated every or every other day, increasing the size of the bougie until the dilatation be fully perfected. After vigilance is necessary to prevent a recurrence, and the bougie can not with propriety be entirely laid aside, or the disease will return with increased violence. There are, however, cases that require more imperative means, such as the use of the *bistouri*, an instrument for the division of stricture of the rectum, which, if the resort be objected to, it behooves persons with the premonitory symptoms to attend to them, that the operation may be rendered unnecessary. There are many excellent palliative medicines that the invalid will derive much comfort from in diseases of the rectum; and enemata constitute a

powerful means of relief. The title of stricture of the rectum is fortunately more familiar than the disease is frequent; and what is more consolatory to persons of feeble health, the complaint seldom extends beyond two or three inches from the orifice, so that it need not be feared beyond the reach of relief. See annexed drawing:—

1. Rectum.
2. Orifice of Rectum.
3. Stricture of the Rectum, with internal hæmorrhoids in the lower portion.

There are some surgeons who state all diseases to emanate from a disordered liver, a weak stomach, or a “broken wind;” and there are others in this town who are never consulted but they deem the use of the rectum bougie indispensable. The limit to structural disorganization of the bowel is not afforded by stricture; there are, unfortunately, many diseases springing therefrom, and many totally independent of such; but their detail here would exceed the titular object of the book. Enough has been stated to convince any person teased with any of the enumerated symptoms, that however simple may be his malady in his own opinion, it is impolitic to overlook or neglect it.

THE URINE.

We shall conclude our treatise by a few remarks on diseases of the urine, to which many are subject. Before proceeding to speak of them, it is necessary, for a full understanding of the subject, to state, that the urine is secreted by two bodies called *kidneys*, placed one on each side of the back-bone, as is shown in the cut. After being formed, the urine passes through the *ureters* into the bladder whence it is voided, as every one knows, occasionally.

1—1. The Lungs.
2. The Stomach.
3—3. The Kidneys.
4—4. The Ureters.
5. The Bladder.

The following diagram shows the bladder and its muscular coats, and also its neck imbedded in the prostate gland. The bladder is seen distended, and, of course, as detached from the body. The kidneys are also seen—one in its natural state, the other divided to show its inner structure: the kidneys and their ureters are crossed to save space in the sketch.

1. The entire kidney. **2.** Its cortical, or secreting part. **3.** The papilla. **4.** The pelvis. **5.** The ureter. **6.** The bladder. **7.** The detrusor muscle. **8.** The sphincter muscle. **9.** Prostate gland. **10.** Neck of the bladder.

The bladder and adjacent parts are seen more fully in the diagram at the top of the succeeding page.

1. Corpus cavernosum.
2. Bulb of urethra.
3. Membranous portion of ditto.
4. Prostate gland surrounding urethra.
5. Seminal vesicles.
6. The two vasa deferentia.
7. The ureters.
8. The bladder.

It is a very common observation with patients, that they never were in better health in their lives than at the moment of consulting their medical adviser, except in the very particular malady, such as an ulcered limb, a teazing cough, a gleety discharge, or an irritable bladder, that they are seeking relief for; “they are quite well,” they say, “in every other respect.” When illness attacks an individual, it does not always announce its arrival by sound of trumpet. It does not always come on like an apoplectic shock: some minor organization is generally the first to indicate disturbance in the healthy economy by even so simple a presage (I will take for example, more especially as the ensuing remarks bear upon the subject) as excretion of disordered urine. To resume; the patient will content himself, that the only fault in his system is the disordered condition of his urine, and he earnestly seeks for something to touch that particular symptom, forgetting that trifling as he may fancy it, it is not merely owing to the office of the kidneys and bladder, but to the blood itself, whence the urine is formed, and to other circumstances in the economy that influence it. Therefore, it is not merely the urine which is at fault, but the state of it is a pretty good indication of the general state of health; and when it becomes vitiated, the urine is generally, unless restored to a healthy condition, a forerunner of some more serious

evil. Still there are many variations in the character and quality of the urine, and each depending upon different causes—some upon a disordered state of the fluids of the body, some upon one remote cause or another, deranging the balance of the circulation, and inducing excessive perspiration, and the like; and certainly not the least important, nor the least influential, exist in the very structures that make (as it were) and receive the urine, namely, the kidneys and bladder. I may observe here, that chymists have detected upward of twenty different substances, animal and saline, in its composition, but in a state of complete solution. Of all these component parts, the most important is an animal product named *urea*, which exists in about the proportion of one in thirty to the water containing it, while the other materials taken collectively, water excepted, yield only about double the quantity of the urea: hence, when the urine is disordered, its specific gravity[17] is increased or diminished, as the case may be; according to the abundance of the urea, and the various proportions of the saline ingredients of the urine, so is the urine thick, thin, acid, or alkaline, pale, or what is called high colored. The various conditions of the urine are ascertained by producing chymically certain decompositions, or by suffering the urine to effect its own changes, which, on being suffered to “stand,” sooner or later it will.

Healthy urine is perfectly transparent and of a light amber color; it yields an odor when warm resembling violets. Its taste (for pathologists trust not only to sight and smell) is saltish and offensive. As the urine cools, it throws up what may be said to be a “urinous smell.” As decomposition proceeds, the urine becomes cloudy, thick, with shining floating patches on the surface; and lastly, a thick deposite coats the bottom and sides of the vessel, the whole giving forth at the same time a fetid ammoniacal exhalation, as is perceived on entering public urinals.

The rapidity with which these several mutations occur, affords some criterion of the healthy or disordered state of the excretion we are talking about, and hence the usefulness of examining especially the urine of persons laboring under any disorder of the urinary system and functions connected therewith. A patient will complain, for instance, of irritable bladder. The symptoms of that complaint, as far as pain and frequent desire to micturate exist, very closely resemble those affections known by the name of “Diabetes,” but which is distinguished from the bladder affection in question by the quantity and character of the urine. I purpose herein to enumerate, in as familiar a manner as is possible, the various disordered states of the urine which my experience has rendered me familiar with, and to present the same as heretofore, in the form of cases that have fallen under my notice.

Now, the urinary disorders that I purpose to collect a description of, and exemplify, may be thus enumerated:—

First, where too great a quantity of urine is voided.

Secondly, where too little is discharged; and also, where suppression of it entirely occurs.

Thirdly, those states where the urine deposites a sediment, of which two kinds are mostly prevalent, namely, the Lithates or Acid, and the Earthy or Alkaline.

Fourthly, a brief exposition of the many but less frequent morbid changes of the urine, in which certain salts and substances, not existing in healthy urine, are precipitated or held in solution.

And lastly, to add a few to the number of those already presented herein, of the infirmities of those organs which excrete the fluid under consideration, namely, the kidneys and bladder.

ON INCONTINENCE OF URINE.

ALTHOUGH this is not the professional term for the disease I am principally about to speak of, yet under this head will the reader, if he be an invalid laboring under a complaint of this character, seek for a description of his own case. Incontinence of urine implies a loss of the retentive faculty of the bladder; but there is a species of disease where micturition is carried to such an extent, that a patient will attribute his leaky condition to the above cause. Not so, however, is the case; the urine, in the disease alluded to, is generated or excreted in great quantity, and the bladder merely fulfils its ordinary duty. Of the affection known under the title of incontinence of urine, most persons are aware that it is one of more frequent occurrence in infancy than in adolescence; but the latter is by no means exempt. In childhood it arises, in all probability, from drinking too much, and the bladder becomes, during sleep, overloaded, and runs over; or, perhaps, from the irritability induced by its distension, becomes excited to action, and so empties itself, the drowsy state of the child rendering it insensible to the passing circumstances.

The infirmity soon becomes a habit, which is often rendered worse by the means taken to check it, namely, chastisement, which is highly reprehensible. It is fortunately, however, a disease that wears itself out as the child grows up; and it may at all times be materially mitigated by a little care and attention, such as inducing the child to micturate before going to bed, and even awakening it before the anticipated time when it usually is attacked with the incontinence. The last fluid meal, which should be a spare one, should be taken some hours before retiring to rest; and if the complaint has gained much ascendency, medicines which give tone to the bladder should

be taken. I have known the malady successfully removed, in a very short time, by a combination of the sulphate of iron and quinine, and any sedative extract, such as henbane or hops, given in small doses in the form of pills. Female children are more susceptible of the annoyance than males, probably owing to the shortness of the urethra. Every measure tending to give strength to the child should be used, such as cold bathing, fresh air, or a change of the same, especially if residing in the city, to the country. Mechanical contrivances are to be had to collect the escape of urine, whereby the offensive odor arising from the continually soiled bed-linen may be avoided, and oftentimes the fretting consequences of the urine passing over the person, which induce excoriations and troublesome sores. There are contrivances for both sexes. Where the disease prevails in mid-life, it is generally traceable to early improvident habits, and of course is the result of irritability and debility of the bladder. There are many patients who can somewhat control the functions of that organ while awake, but have no power over it when asleep. The treatment depends a great deal upon the observance of abstemiousness both in eating and drinking: a perseverance in chalybeate remedies, both taken and administered internally (I have injected the bladder of a person subject to nightly incontinence of urine with various tonic preparations, with very great and permanent relief); the use of the warm bath, whereby the skin is brought into healthier action (for it is generally arid, and parched when much urine is voided), which tends to lessen the duty of the kidneys and urinary system, should be adopted; nor should exercise, that *pabulum vitæ* of even all feeble persons, be disregarded. It is of the utmost importance for the preservation of health, under all the circumstances in which we may be placed. Escaping from this digression, I now proceed to follow out the idea of the first paragraph of this chapter, to treat of those complaints wherein the urine is voided in excess. There is a disease commonly known by the name of diabetes, wherein the prominent symptom is a continual aptitude

to pass urine, and in much greater quantities than the fluid consumed as ordinary drink could supply. This is one form of ailment of this class; but there is another, happily less inimical to life, and which, in the order of its frequency and simplicity, should take precedence. It is that state of health, where the patient is of that leaky habit, that whatever he takes runs through him, and that very quickly too. Of course, such a condition must depend upon a seriously-deranged constitution: hence there is present a perpetual thirst, an entire perversion of the perspiratory function, and a morbid condition of many of the phenomena of life. Where this disease springs up in early years, it becomes a habit proper to existence; and although it may not seriously disturb the economy of the being so as to lessen the duration of one's stay here, yet it furnishes a source of much solicitude, by depriving us of rest, and shutting us out from society.

The patient (for such he or she may be truly called, and the complaint invades both sexes) appears to have a perpetual fever. Such is the desire for drink, that attested cases record the circumstance of individuals consuming from *one* to *two pailfuls* of water in twenty-four hours! and I positively know an instance, at the moment of writing this, of a child, fifteen years of age, consuming during the night, notwithstanding a plentiful supply of liquids during the day, a large jugful (two quarts) of water: the quantity of urine excreted is nearly equivalent. In this case, the perspiration is profuse, and the child enjoys tolerably good health, with the exception of being occasionally nervous and hysterical. The case is under treatment, and the quantity of fluid allowed is being daily diminished. The urine on these occasions is aqueous, very pale, and of little specific gravity; the properties of the urine otherwise are not altered. These cases sometimes exist through life; and if they do not terminate fatally, they ultimately enfeeble the health, and predispose the patient, or, in other words, render him less able to combat with

ordinary complaints common to us all, and thereby tend to the break-up of his constitution.

There are many persons tipplers, not for the love of the specific liquor, but from being always thirsty; and if we reflect a little, we shall soon find how inclined we are to encourage the habit. Since the introduction of tea into this country, what inordinate quantities of that fluid are consumed by individuals. They must, of course, dispose of it, after having drunk it: the stomach can not retain it, and it escapes either by the skin or kidneys, more usually the latter. It is no uncommon thing for nurses, washerwomen, and other females too, to swallow nine or a dozen cups of tea at a sitting: they declare it is their best meal.

Man is a great deal more careful of the quadruped world than the class he belongs to himself. He will stint his horse drink, who works as much beyond his strength as man does under his own, while he, the driver, will swill till his mouth can scarcely receive another drop. The moral of a volume might doubtlessly be expressed in very few words, but then it would not be a volume, and, consequently, would not be purchased or read; therefore, the proposition herein intended to be presented to the reader would exist unheeded. It is one thing to observe, that we all drink too much, or that too much fluids are hurtful to digestion and other functions, the public require some illustration (which their own reflection would furnish, if they used it), and hence this expense of verbosity to prove the fact. As one of the consequences, then, of too great an indulgence in fluids (I am here speaking of quantity rather than quality), this form of complaint, wherein the patient is perpetually desiring to urinate, is decidedly the result; and, as all complaints have a beginning, this may be considered as the first step toward setting up the several affections of the kidneys and bladder hereafter treated upon. How important, then, is the arrest of this practice. Where the inconvenience thus detailed is present, the quantity of fluids must by degrees be

diminished, the general state of health must be studied. Dieting and warm-bathing are two sheet-anchors, if properly applied. All remedies tending to afford strength to the urinary system must be had recourse to; and where the bladder loses any of its retentive power, I entertain the greatest benefit from an injection.

The next form of urinary disturbance of a proximate nature to the one just described, is also where the urine is discharged in large quantities; but, unlike the former, excreted in greater abundance than the supply. The character of the fluid is also different; it assumes two appearances, modifications doubtlessly owing to the constitution of the patient and the severity and length of the disease. It is known by the name of diabetes: it is happily a complaint the least frequent of urinary derangements, else, from its obstinacy and difficult management, the slightest urinary disorder would excite much just dread and apprehension.

The forms of the complaint thus vary: In the one instance, there is a deficiency of the animal matter of the urine, namely, the urea, and in the other, a superabundance of it. In the former instance the urine is of a pale color, and transparent, and sometimes like clear water, with a very faint slight odor; whereas, in the latter it is generally of a higher color, and now and then so thick as to resemble brewer’s porter: it is decidedly a disease of great debility. The symptoms are, a wearisomeness and languor of the whole frame, a dry and crimpled state of the skin, a sinking, gnawing pain at the pit of the stomach, the bowels are obstinately bound, while a great thirst always prevails. The body wastes to a mere skeleton, the discharge of urine being almost constant, at least every hour, accompanied with a call that must be immediately obeyed: the leading feature in the composition of the urine, in addition to the varied presence of the urea, is the saccharine matter contained therein. It rarely attacks others than those who have led an irregular life, or else have suffered much from other kinds of sickness.

Diabetes is supposed to depend upon a perverted action of the kidneys; but there is little dispute of its being a malady involving the whole process of animal economization. The quantity of urine got rid of in a day has been known to amount to ten quarts; as the disease continues, the patient becomes much emaciated, the feet swell, and he sinks into a state of low hectic fever; the urine discharged continuing all this time to exceed nearly double the amount of nourishment, liquid or solid, that is taken, has given rise to the idea, that water is absorbed from the atmosphere through the body. The disorder is generally lingering, and, unless conquered, at last fatal. The treatment embraces many remedies—bleeding, emetics, diaphoretics, and sedatives, are mostly employed. It being a complaint involving the necessity of constant professional watchfulness, a more lengthened dissertation upon its peculiarities will but little serve the patient. My own opinion is, that the invalid must look for recovery—presuming the initiatory symptoms have been duly attacked and subdued—to careful diet, fresh air, varied scenery, and cheerful society. Bathing, either vapor or warm, is immensely useful; and, among the cases that have travelled across my path (for patients laboring under diabetes, like any other chronic ailment, generally take the round of the profession), I have seen much and great good achieved by the frequent employment of the bath.

As diabetes is mostly a sequence of some previous disturbance of the urinary system, it the more behooves the afflicted to heed the first noticial summons of attack: a handful of water will sometimes quench a mouldering ember that, suffered to rise into a flame, an engineful can not extinguish. I may add, there is no cause so destructive to virility as these drainages from the system through the urethra—an additional reason why they should be attended to upon their first appearance.

Cases where but a small quantity of urine is voided, terminating in suppression, of urine.—The most popular scientific synonymes for complaints are but little understood by men really of education; for, as yet, medical knowledge forms not one of the items of collegiate lore, and few anticipate sickness to render such acumen necessary. The term “Strangury,” from the frequency of its occurrence, is uppermost in most men’s minds; and they use it on all occasions when there happens an interruption to the process of making water. It is oftentimes misapplied. Strangury implies a difficulty in voiding the urine, but it does not include those cases wherein little is voided, because there is little to void. The affection I am now about to make mention of, is of the latter description. I have stated that the urine is subject to a multitude of changes, that the human frame is constituted to exist under a variety of circumstances, and that occurrences are daily happening, wherein its integrity is put to the test. Excesses, termed sensual, and others, which in themselves might destroy life, are counterbalanced by what may be styled the *safety-valves* of the system. A violent fit of purging, perspiration, or micturition, is often the means of warding off an otherwise fatal blow. The skin, the bowels, and the kidneys, are severally to be acted upon as emergencies demand: instance the specific operations of diet and medicines. The color of the urine is altered by (to give a popular illustration) *rhubarb*; its odor, by *turpentine* (taken internally, or from an inhalation of the vapor of them), and by the well-known vegetable *asparagus*; and its composition by alkaline and other chymicals. The function of cutaneous exhalation is augmented or diminished by warmth or cold; and the action of the bowels is suspended or increased by innumerable substances, forming portions of our daily food.

Analogous to these effects, is the result of certain conditions of ill-health. A patient, laboring under fever or inflammation of any important organ, will scarcely rid himself of a wineglassful of blood-

colored urine in the twenty-four hours; and there are many forms of ailments, where the function of separating the urine from the blood, or even the function of supplying the kidneys with that vital fluid, are suspended, partially or entirely. Few of us have escaped attacks of this kind; they are sure to follow long-pursued habits of dissipation, or even occasional displays of it; and they are often the result of accidents over which we have but little control. A patient will complain of a frequent desire to make water; each effort so to do, will be accompanied with excruciating pain. A small quantity, or a few drops only, will dribble away, excoriating the passage as though vinegar was passing over it, and putting on an appearance almost resembling muddy port wine, or a thick solution or suspension of brick dust: there will be present much fever and constitutional disturbance. The patient may have shivering fits, pain round the loins, down the thighs, and over the lower part of the abdomen. He will betray a readiness to submit to anything, although conscious that his bladder is empty, notwithstanding the violent and urgent efforts at straining, which he is continually being called upon to make, as though his bladder were distended, and ready to burst. On passing the catheter (I am supposing a severe case, where retention of urine has at last occurred), not a drop will flow, and the danger of the disease is thereby made apparent. Except very severe measures be adopted, which it would be idle here to lay down, the case is sure to terminate fatally. Instances are recorded, where that event has been retarded upward of a week, during which time the patient voided not one drop of urine.

The absolute cause of the disease is very obscure; but it has a beginning, and to those only who suffer from a long-continued diminution in this natural excretion, and who disregard it, is this picture presented.

The treatment, in advanced stages of the disease, is strictly professional; but the warning of the altered character of a customary

evacuation, should not for a moment be disregarded.

Suppression of urine is very different from retention: in the former, there is none to excrete; in the latter, its escape is impeded. In the chapter on stricture, the cause and manner of retention is explained, and the mode of relief laid down, whereby the invalid himself has a remedy at hand; but, in suppression, the resource is neither so ready nor so effectual. It is, therefore, much wiser to notice the first alteration, and to be prompt in seeking the nearest aid. Every practitioner is acquainted with such. Although such are not ever present, even in the most extensive practice, still they do occur; and much as this mode of frightening a patient may be condemned, knowing the frequently existing disinclination toward “laying up,” yet, if it only induce a fellow-mortal to take the tenth instead of the eleventh hour, one life may be saved, and the writer can well submit to the disapproval and contempt of the thoughtless and indifferent.

THE GRAVEL.

UNDER the head of this disease may be classed all those urinary affections, wherein a sandy deposite is observed, after the urine has stood some time. This sandy excretion varies in its composition, in the quantity voided, and in its continuance: and it is also often separated, for it is held generally in solution in the urine as it comes from the bladder, while in the bladder or in the kidneys; and hence we find gravel in the kidneys, in the bladder, and in the urine. Where it is precipitated, or formed in the kidneys or bladder, it is apt to accumulate, and constitute what is called “Stone” in those organs. As I have just observed, the composition of this gravel differs, and differs also at different times in the same individual, according to circumstances. Stones have been detected that, like the rolling snowball, gather up, as they increase in size, whatever comes in their way; and, accordingly, as the deposites are principally composed of concretions, termed, in chymical phraseology, “Lithates” and “Phosphates,” stones are frequently found to be formed, first of a layer of one covering, then of another, and so on.

Gravel may exist for years without inducing much disturbance of health, or it may produce serious inconvenience in a very short time. The urine being acid, holds the salts which it contains in solution; and, therefore, if the acid predominate, it becomes, through its own excess, thrown down, when it is detected in the form of red sand; but if there be an insufficiency of acid, the earths and salts of the urine are thrown down, and they exhibit their existence in the form of white gravel. Hence the two names “Red” and “White Gravel.” Acidulated urine is looked upon as certainly indicative of health, and when in excess, of a high tone of health; which, as the degree ascends, is

marked by inflammation and fever. Alkaline urine betokens feebleness of constitution, or interrupted health. High living and an excited life induce red gravel; irregular, or an impoverished living, with much mental inquietude and physical exhaustion, establish white gravel. The fact of gravel being known to exist without forming stone, is no justification to suffer it to incur even the chance of such a finale. There is no class of diseases so painful and distressing as those wherein the function of the kidneys or bladder is interrupted, and the majority of these affections are ushered in by a derangement of the urinary fluid.

Cause of Gravel.—The cause of gravel is owing to chymical affinities. The urine, among its other constituents, contains *lithic acid* and *ammonia*, which two, in healthy urine, are combined and held in solution. If any other acid, as may be instanced in expelled urine, possessing a greater affinity for the *ammonia* than the *lithic acid*, be added, the *lithic* will be thrown down. The same process takes place when effected in the system, the source of which new acid is the stomach, which, when in an irritable and feeble state, as in indigestion, furnishes or abounds with muriatic acid. In like manner, the urine containing salts, called phosphate of lime, ammonia, and magnesia, on receiving an additional quantity of ammonia,[18] the lime, for the less affinity to phosphoric acid than the ammonia, is thrown down; and hence a salt, bearing its name, is generated, either to be expelled like gravel, or to feed a nucleus already existing in the bladder. These chymical changes are produced by the causes before enumerated. We are subject to an infinitude of laws: we are perpetually changing, and these changes may fairly be stated as chymical affinities: it is owing to such, that the absorption of fluids, and the deposition of substances, which exist more or less in all derangements of health, ensue—to such, that we resist death, and to such that we become its prey. Gravel is a disease not so productive of fear or suffering, so long as it escapes when formed;

but there are so many circumstances that may give rise to the formation of stone, that sandy urine should always command notice and treatment. A clot or point of blood, that may have been discharged from irritation of the kidney or bladder, is often found to form the nucleus of a stone: the slightest substance, once in the bladder, is apt to form a basis for accumulation: a pin, a fragment of a bougie, or any instrument, hair, wood, and numberless other things that have found their way into the bladder, have given rise to the formidable and distressing complaint of stone.

Treatment of Gravel.—It is not to be anticipated that every person is prone to excrete gravelly urine, else certain dietetics, that evidently give rise to the same in particular instances, had better at once be removed from the list of articles of food, and their use prohibited altogether; but there are instances where a constitutional disposition exists in particular families, that is even transmitted from generation to generation, to calculous diseases, and in those cases, every precaution should be taken to avoid even their development.

The antidotes to the disposition to gravelly urine are, exercise, temperance, and the adoption of all those means that tend to promote a healthy action of the skin and kidneys, namely, the warm bath—it is a perfect talisman in these affections—it needs but little eulogy; the comfort and relief, where relief is sought, afforded on the first experiment, best bespeak its praise. It is decidedly one of the most useful adjunctive prophylactic measures we have.

I have already stated, that disorders of the urine arrange themselves under two great heads—the acid and the alkaline prevalence. The treatment is to neutralize the excess of either: the acid diathesis, as it is called, is considered a less healthy deviation than the alkaline, and is looked upon as indicative of greater constitutional break-up. The medicines most in vogue in gravelly disorders are, turpentine (to increase the formation of lithic acid), sulphuric, nitric, and muriatic acids; while the antagonists to that form

of the disease, wherein the above are given, consist of ammonia, potass, and soda. The great object, however, is to balance the health, to allay irritation, and tranquillize the morbid uproar of the system. Here we have an extensive field to select from in the class of sedatives. Opium, perhaps, is the best—the most to be depended upon, its properties being best known; the warm bath comes next; and lastly, the various tonics and astringents of our pharmacopœia, of which quinine, uva ursi, pareira brava, achillæ millefoliæ, buchu, &c., &c., stand foremost.

Although the lithic acid deposition is the most frequent, still, as the disease advances, there is a strong tendency to the formation of the alkaline; and as the remedies for the former are apt to accelerate the latter disorder, it is most important that the urine should undergo frequent examination to regulate the treatment. To recapitulate the substance of this article, it may be stated, that gravel is a disease, not dangerous in itself, but that it is always the forerunner, although not always productive, of stone; stone being formed by the collection and chymical union of the sand itself. This collection takes place in the kidney, the ureters (the vessels that convey the urine to the bladder), the bladder, and sometimes in the urethra. The stone so formed varies in its composition and size, and is one of the saddest ills that can befall human nature. Hence the importance of watching, and attending to every urinary disturbance, of which gravel forms a prominent feature, the treatment of which has been already stated; but which, as it involves more practised judgment than a non-professional invalid can be supposed to possess, had better be intrusted only to professional hands.

THE END.

FORMULÆ

Form 1.

Four to six drachms of castor oil, the ordinary black draught, a dose of salts, or a dose of Weir's Compound Pills.

Form 2.

The following mixtures lessens the acrimony in making water, abdues the irritability, and tends to diminish the discharge:—

Take of—

Carbonate of potass	1 drachm.
Nitrate of ditto	1 drachm.
Mucilage of acacia	5½ oz.
Hydrocyanic acid	10 drops.
Syrup of Tolu	2 drachms.

Mix. Take a tablespoonful in a wineglassful of water twice daily.

Form 3.

Take of—

Linseed tea	½ pint.
Spirits of Sweet Nitre	2 drachms.
Battley's Sedative	60 drops.

Mix. Take three tablespoonfuls, twice or thrice daily.

Form 4.

Where it is inconvenient for a patient to carry a bottle about his person, the following electuary, combining the essential ingredients of the former two, may be substituted:—

Take of—

Lenitive electuary	2 oz.
Conserve of roses	2 oz.
Strong mucilage of acacia	2 oz.
Nitrate of potass	2 drachms.

Mix. Dose—Two teaspoonfuls twice or thrice a day.

Form 5.

A good combination, that may be taken even in the inflammatory stage.

Take of—

Cubebs	2 oz.
Carbonate of magnesia	1 drachm.

Mix. Dose—A dessert- or tablespoonful twice or thrice daily.

SPECIFIC REMEDIES.

Form 6.

Take of—

Balsam of copaiba	1 oz.
Powder of cubebs	½ oz.
Mucilage of acacia	6½ oz.
Spirits of sweet nitre	2 drachms.
Battley's sedative	30 drops.

Or—

Hydrocyanic acid (Scheele's strength)	8 drops.
Syrup of orange-peel	2 drachms.

Mix. Dose—Two tablespoonfuls, once or twice daily, in water.

Form 7.

Turpentine Pills.

Take of Venice turpentine 1 drachm, form it into pills by adding as much rhubarb as is necessary, and take two, three

times a day.

Form 8.

Turpentine Mixture.

Take of—

Venice turpentine	1 scruple.
Mucilage of gum arabic	2 oz.
Emulsion of bitter almonds	4 oz.
Syrup of orange-peel	½ oz.

Mix. Dose—Two tablespoonfuls three times a day. Sedatives may be conjoined with the above preparations, if they produce too much action of the bowels. To the pills may be added one scruple of Dover's powder to the drachm of turpentine. To the mixture, thirty drops of laudanum.

Form 9.

Take of—

Terebinthin chiœ	1 oz.
Extract of rhubarb	1½ drachms.
Camphor	1 drachm.

Mix and divide into pills of 5 grains each. Dose—Three, three times a day.

Form 10.

Take of—

Cahio turpentine }	
Balsam of copaiba }	Of each, equal parts.
Oil of amber }	

Mix, according to art. The turpentine must be dissolved by warmth. The dose is 30 or 40 drops three or four times a day. This medicine is very nauseous, but very serviceable in long standing gleets and obstinate claps. The best way to remove the flavor left in the mouth after taking turpentine, copaiba, and other filthy medicines, is to chew a piece of gingerbread or cheese, or suck a lemon, or put some salt upon the tongue.

Form 11.

Injections to diminish the pain on making water.

Take of—

Rose-water	3 oz.
Solution of the acetate of morphine	2 drachms.

Mix.

Form 12.

Take of—

Goulard water	3 oz.
Mucilage	4 oz.
Solution of the acetate of morphine	2 drachms.

Mix.

Form 13.

Sedative draught to be taken at bed-time when annoyed with chordee.

Take of—

Acetated liquor of ammonia	½ oz.
Camphor julep	1 oz.
Solution of the acetate of morphine	20 to 25 drops.

Mix.

Form 14.

Take of—

Dover’s powder	12 grains.
James’s powder	5 grains.

Mix.

Form 15.

Take of—

Compound camphor liniment	½ oz.

Laudanum ½ oz.

Mix, to form a liniment.

Form 16.

Injection for the ulceration of the glans penis.

Take of—

Chloride of soda 1 oz.
Rose-water 5 oz.

Mix.

Form 17.

Take of—

Nitrate of silver 1 scruple.
Distilled water 1 oz.

Mix.

Form 18.

Take of—

Calomel ½ drachm.
Lime-water 4 oz.

Mix.

Form 19.

Emetic Powder.

Take of—

Ipecacuanha powder 1 scruple.
Emetic tartar 1 grain.

Mix. To be taken in a glassful of warm water, and repeated in twenty minutes, if it do not produce vomiting.

Form 20.

Iodine.

Take of tincture of iodine twenty drops twice or thrice a day in a little water.

Form 21.

Take of—

Hydriodate of potass	½ drachm.
Mucilage of acacia	½ oz.
Camphor julep	5½ oz.

Mix. Dose—three tablespoonfuls three times a day.

The Sedative Application to anoint a Bougie with.

Form 22.

Take of—

Extract of Aconitine	1 grain.
Oil of Olives	1 drachm.

Mix.

Form 23.

Or take of—

Extract of Henbane	5 grains.
Lard or Olive Oil	1 drachm.

Mix.

Form 24.

Or take of—

Acetate of Morphine	3 grains.
Simple Cerate or Oil	2 drachms.

Mix.

Stimulating Application.

Form 25.

Take of powder of calcined alum, and dust the end of a bougie previously oiled, and introduce it to the stricture in the usual manner, and suffer it to remain until the obstacle be overcome. Occasionally the bougie may be smeared with the balsam copaiba, where the case is chronic, and there happens to be much secretion from the part.

Form 26.

Take of—

Iodide of potass	1 drachm.
Mercurial ointment	1 do.
Simple cerate	4 do.

Mix. A portion to be rubbed over the scrotum night and morning, as long as it can be borne.

Form 27.

Strong caustic solution of Dr. Doane.

Take of—

Caustic	⅓ drachm.
Distilled water	1 oz.

Mix.

Form 28.

Wash for Chancres.

Take of—

The solution of chloride of soda	2 oz.
Rose-water	4 oz.

Mix.

Form 29.

Black wash for Chancres.

Take of—

Calomel	1 scruple.
Lime-water	3 ounces.

Mix.

Form 30.

Red wash for Chancres.

Take of—

Bi-chloride of mercury	4 grains.
Lime-water	4 oz.

Mix.

Or, Form 31.

Blue wash for Chancres.

Take of—

Sulphate of copper	5 grains.
Distilled water	1 oz.

Mix and strain.

For dressing chancres, lotions and washes generally answer better than ointments; but their alternate use is sometimes serviceable. In cracked sores near the prepuce, the blue ointment has wrought a cure when all the lotions devised were ineffectual.

Form 32.

Take of—

Red precipitate of mercury	4 grains.
Ointment of spermaceti	1 oz.

Mix.—A little to be smeared over the ulcer, twice a day.

Form 33.

Active aperient in indolent Chancres.

Take of—

Calomel	4 grains.
Powder of jalap	15 to 20 grains.

Mix.—To be taken in something thick, as jelly, honey, or tamarinds.

Form 34.

Active aperient, to be mixed in water and (stirring it) to be drank off quickly.

Take of—

Chloride of mercury, or calomel	5 grains.
Powder of jalap	25 grains.

Mix.

Form 35.

Ointment to promote absorption of Bubo.

Take of—

Iodine of potassium	1 drachm.
Tincture of iodine	1 drachm.
Acetate of morphine	10 grains.

Mix.—Apply constantly a plaister of some of this ointment spread upon rag or lint, over the bubo, and occasionally rub a little of it gently into the skin.—*Doane.*

Or, Form 36.

Take of blue ointment a similar quantity, and use it in like manner to the preceding. The reliance to be placed on this ointment is precisely the same as the other, namely, to excite absorption. The following ointment may also be used for the same purpose.

Form 37.

Take of—

Calomel	2 drachms.
Simple ointment	6 drachms.

Mix.

Form 38.

Stimulating ointments to promote the healing of indolent ulcerated Buboes.

Take of—

Red precipitate of mercury	5 grains.
Ointment of spermaceti	1 oz.

Mix.—The ulcer to be dressed with a small portion of this ointment spread upon lint. Or the following, which is stronger:—

Form 39.

Take of—

Red precipitate of mercury	5 grains.

Yellow basilicon	2 drachms.
Ointment of spermaceti	6 drachms.

Mix.—To be used like the preceding.

Or, Form 40.

Take of nitrated ointment of mercury, diluted with an equal proportion of simple ointment.

Or, the unadulterated strong mercurial ointment.

Form 41.

Styptic application for indolent Ulcers.

Take of—

Caustic	½ drachm.
Or, Sulphate of copper	½ do.
Distilled water	1 oz.

Mix and strain, and smear the surface of the sore with a hair pencil, impregnated with either of the solutions: simple or astringent dressings may be applied afterward.

Form 42.

Take of—

Chloride of soda	2 ounces.
Rose-water	2 do.

Mix.

Form 43.

Preparation of Iron.

Take two drachms of carbonate of iron three times a day, gradually increasing the dose to half an ounce, or even an ounce; the bowels during the taking of this medicine should be kept open.

Form 44.

The following is an excellent combination.

Take of compound iron pill two drachms, to be divided into

24 pills—two to be taken three times a day.

Form 45.
Quinine.

Take three grains of sulphate of quinine three times a day.
Or,

Form 46.

Take of—

Compound tincture of bark	2 ounces.
Sulphate of quinine	12 grains.
Muriatic acid	20 drops.

Mix.—Dose, a teaspoonful three times a day, in water.

Form 47.
Strengthening Pills.

Take of—

Ioduret of iron	½ drachm.
Castile soap	½ do.
Alkaline extract of gentian	1 do.

Mix.—To form 30 pills—take one twice daily.

Form 48.
Tonic and Alterative Mixture.

Take of—

Oxymuriate of mercury	2 grains.
Muriatic acid	60 drops.
Tincture of bark	2 oz.

Mix.—A teaspoonful to be taken twice or three times a day in a little water.

These drops are highly serviceable to persons of weak constitutions, whom it is desirable to place under the influence of mercury. They form the basis of most of the advertised anti-scorbutic drops of the patent medicine venders.

Form 49.

Compound decoction of Sarsaparilla.

Take of—

Sarsaparilla root, sliced	4 ounces.
Boiling water	4 pints.

Macerate for four hours in a vessel lightly covered, and placed near the fire; then take out the sarsaparilla and bruise it; return it again to the liquor, and macerate in a similar manner for two hours; boil it down to two pints, strain it, and then add—

Sassafras root, sliced	¼ ounce.
Guaiacum root, rasped	¼ do.
Liquorice root, bruised	¼ do.
Bark of mezeroon root	1½ drachm.

Boil the whole together for a quarter of an hour, and strain. Dose, from a quarter to half a pint, three times a day.

To avoid the tediousness of daily preparing the above, many manufacturing chemists evaporate a large quantity, and preserve the extract, which retains all the virtues of the decoction, and is at all times ready for immediate use. Or,

Form 50.

Take of—

Bruised root of Jamaica sarsaparilla	4 ounces.
Liquorice root, sliced	½ ounce.
Lime-water	1 quart.

Macerate for 24 hours in a dark and cool place—strain and bottle it, and take a pint daily in divided doses. This is a very superior form of administering sarsaparilla. Or,

Form 51.

Take of—

Oxymuriate of mercury	2 grains.
Muriatic acid	5 drops.
Compound extract of sarsaparilla	2 oz.

Dissolve the same in one quart of water, and take a wineglassful twice a day.

Form 52.
The Iodide of Potass Mixture.

Take of—

Iodide of potassium	1 drachm.
Iodine	2 grains.
Mucilage of acacia	3 ounces.
Hydrocyanic acid	12 drops.
Pure water	5 ounces.
White sugar	½ ounce.

Mix. Take a dessert- or tablespoonful twice or thrice daily in a wineglassful of water.

Form 53.

Take of—

Iodide of potassium	1 drachm.
Acetate of morphine	10 grains.
Spermaceti ointment	1 oz.

Mix. Rub a portion, the size of a nut, over the affected part night and morning. If much irritation be produced, it must be disused for a time.

Forms 54, 55, 56, 57 see pages 126–128.

Form 58.

Take of—

Sarsaparilla sliced	1 oz.
China root	1 oz.
Dry rind of 20 walnuts.	
Antimony	2 oz.
Pumice stone	1 oz.

(Tied in separate bags, and boiled with the other ingredients.)

Distilled water	10 pints.

Boil to one half, and strain.
Dose—An aleglassful twice or thrice daily.

Forms 59, 60, 61, 62 see page 132.

The best aperient for females is certainly a combination of castor oil. The following form is a very good one:—

Form 63.

Take of—

Castor oil	1 oz.
Mucilage of acacia	2 oz.
Spirits of sweet nitre	1 drachm.
Syrup of orange-peel	½ oz.
Water	1 oz.

Mix. Take half for a dose.

Forms 64, 65, 66, 67, 68, 69, 70 see pages 156–158.

Forms 71, 72, 73, 74, 75, 76, 77, 78, 79 see pages 158–161.

FOOTNOTES

[1] A wash composed of one part of the chloride of soda, with five of water, is as good as can be used; the same may be injected up the urethra.

[2] Lining internal structures which have no outlet, as that in the abdomen, called the peritoneal.

[3] To enter into a description of the pathological condition of the bladder in the several states of irritability, paralysis, and inflammation, would be to swell this article to an inordinate length, and serve no useful purpose—the symptoms and treatment comprising the most essential knowledge for the patient to possess. It may be briefly stated, that the bladder is less subject to become disorganized (the function being chiefly the disordered symptom), and sooner even regains its tone than other organs not less important to life.

[4] Colles, Wallace, Ricord, of the Venereal hospital, Paris.

[5] *Mercury.*

The preparations of mercury are various: but those chiefly employed in the treatment of syphilis are the oxymuriate, or bi-chloride, the submuriate, or chloride, the red precipitate, or the hydrargyri nitrico-oxydum, the blue pill, the red sulphate for fumigations, and the blue ointment.

Ptyalism or salivation, which implies an extraordinary secretion of the salivary and other glands, occasioned by the taking of mercury, inasmuch that when carried to an unwarrantable extent, ulceration is the consequence, may be produced by the internal exhibition or external application of almost any of its preparations. With this view, however, the blue pill is usually administered in doses of five grains twice a day, or the blue ointment is directed to be rubbed in on the inner part of the legs and thighs, in quantities varying from one to two drachms night and morning. Mercury, when given to excite ptyalism, is generally taken in conjunction with sarsaparilla (see Form 51, or the fluid extract). The symptoms whereby the effects of mercury are ascertained, are a

coppery taste in the mouth, followed by a tenderness of the gums on mastication, an increased flow of the saliva, and a peculiar fœtor of the breath. It is usual, on the tainted taste being perceptible, to diminish or discontinue the further use of the medicine, unless the case be very severe, or merely to keep up the effect produced. But it can not be denied that, although sufficiently manageable in scientific hands, mercury, or any one of its preparations, is too powerful to be taken indiscriminately.

[6] *Antimony.*

The preparations of antimony consist of the precipitated sulphuret, called now the oxysulphuret of antimony, and the powder, as directed to be made in the Pharmacopœia, or its secret modification, known by the name of “Dr. James’s Powder.” The sulphuret enters into the composition of the red or Plummer’s pills, which is an admirable alterative, given in conjunction with sarsaparilla, in doses of five grains, once or twice a day. The James’s powder, with the like intention, may be taken in two or three grain doses twice or thrice a day.

[7] Wagner, translated by Dr. Willis.

[8] Some say eight days after.

[9] Instances of different conceptions following connexion at brief intervals are of occasional occurrence.

A case is recorded of a negress having brought forth a negro and a mulatto child, and who confessed having received the embraces of a white and a negro the same evening. Drs. Dewees of Philadelphia, and Francis of New York, adduce similar instances.

[10] The membrane containing the liquid comes away with the after-birth or placenta; but when it is brought away with the child’s head, it is named a “caul,” to which the ignorant attach a superstitious belief that it saves the possessor from drowning, and hence it has been a source of traffic between the cunning and the weak-minded. Cauls are made by detaching the membrane from the placenta.

[11] Yellow wax may be substituted for the white wax, which renders the ointment stronger and better adapted for excoriations that yield a discharge.

[12] Every nurse is acquainted with the usefulness of starch, tutty powder, Fuller's earth, &c.

[13] Blundell.

[14] Dr. A. Sidney Doane has recorded a case, in his edition of "Good's Study of Medicine," where a woman brought forth fifty-seven children.—Vol. ii., p. 503.

[15] A patient was admitted into the ophthalmic wards of the Hotel Dieu, Paris, with great weakness of sight, amounting almost to amaurosis. He confessed that he was in the habit of polluting himself, and that he was immediately seized with complete blindness whenever he addicted himself to the practice. Cases very similar to the above have been noticed by Dr. Doane, of New York, who has paid great attention to diseases of this character.

[16] The convertibility of India-rubber to so many useful purposes has not escaped the attention of surgeons, and it is found to be an excellent material for trusses, pessaries, bougies, &c., and consequently much used for them. I find them in my own practice far preferable to metallic or any other description. Many cases of hæmorrhoids, as well as of prolapsus, that have been given up as incurable, on account of the parties objecting to wear metallic instruments, or submit to the operation of excision or ligature, have speedily yielded to the application of the same manufactured of India-rubber; indeed, every day's experience so convinces me of their superiority and efficacy as a remedy in these disorders, that a patient afflicted with the most formidable form of either disease need not despair of a prompt and certain recovery.

[17] The specific gravity of the urine materially depends upon those causes which act diuretically, and upon the quantity of fluids swallowed, which, if taken in excess, of course increases the watery portion of the urine, and vice versa. The density of the urine is ascertained by an instrument called an "Hydrometer," which, upon being immersed in the urine, indicates its specific gravity. The usual specific gravity of healthy human urine varies from 1.010 to 1.015, while the temperature ranges from 75 degrees of Fahrenheit to 120. The quantity averages from two to three pints per diem, but depends not only upon the quantity of fluids consumed, but also upon the nature of the food, vegetables generating more urine than animal substances. In infancy and old

age, the temperature of the urine is below this standard, but nearly equivalent to each other; whereas it is only at the period of puberty that the temperature noted exists.

[18] Furnished in the system by the decomposition of urea.

Transcriber's Note (continued)

Obvious punctuation errors in the transcribed text have been repaired.

Variations in spelling are common in this book. In the case of medical terms in which the ligatures 'æ' and 'œ' could be used, the variations are numerous and noticeable. Thus we find the terms "hemorrhage", "hæmorrhage" and "hœmorrhage" being used interchangeably. Similarly for "hæmorrhoids" and "hœmorrhoids" and all the words derived from the foregoing terms.

Except as noted below, unusual or variable spelling and hyphenation as published in the original book have been retained.

Page 11 — "membraneous" changed to "membranous" (diminishes at the membranous portion)

Page 16 — "then," changed to "them" (that connects them together)

Page 21 — "developes" changed to "develops" (the sooner develops the disease)

Page 22 — "ay" changed to "any" (to resist any efforts)

Page 24 — "arm-pits" changed to "armpits" (under the armpits)

Page 29 — “gonorrhæa” changed to “gonorrhœa” (in curing gonorrhœa;)

Page 30 — “head-ache” changed to “headache” (inclination to headache)

Page 50 — “surfacial” changed to “surficial” (surficial and muscular membranes)

Page 54 — “fœces” changed to “fæces” (the fœces pass in small quantities)

Page 58 — “permaneut” changed to “permanent” (permanent irritability of the bladder)

Page 62 — “now” changed to “how” (to show how imperative it is)

Page 80 — “coherd” changed to “cohered” (where numbers cohered together)

Page 85 — “empyrical” changed to “empirical” (by the most empyrical measures)

Page 87 — “chancerous” changed to “chancrous” (a chancrous sore)

Page 89 — “accompanying” changed to “above” (Witness the above wood-cut.)

Page 102 — “incrustrations” changed to “incrustations” (similar incrustations are formed)

Page 107 — “desquemated” changed to “desquamated” (the pimple has broken or desquamated)

Page 109 — “raced” changed to “traced” (to such weknesses may be traced the relapses)

Page 118 — “desquemate” changed to “desquamate” (exfoliate, or scurf, or desquamate)

Page 125 — “are are” changed to “are” (There are also deep and painful fissures)

Page 131 — “pecuiar” changed to “peculiar” (a peculiar contour of the countenance)

Page 134 — “triflind” changed to “trifling” (trifling errors in diet)

Page 137 — “unimpergnated” changed to “unimpregnated” (when unimpregnated, is very compact)

Page 146 — “corpulant” changed to “corpulent” (like a very corpulent man)

Page 149 — “ipresses” changed to “impresses” (the womb impresses upon the bladder)

Page 167 — “Henry III.” changed to “Henry II.” (Henry II. consulted one Fernal for the infertility of his queen, Catherine de Medicis)

Page 196 — “protusion” changed to “protrusion” (extraordinary protrusion of piles)

Page 200 — “bladders” changed to “bladder” (into the bladder whence it is voided)

Page 214 — “pharmacopœa” changed to “pharmacopœia” (of our pharmacopœia)

In anatomical references, the book uses “chord” throughout in place of “cord” — see for example “umbilical chord” and “spermatic chord”.

There are seventy-nine treatment recipes/formulæ (“Forms”) in the book. All are printed in a similar style. However fifty-five appear as footnotes while the rest appear in page text. For ease of reference in the transcription, all the footnoted Forms have been gathered together and moved to a new FORMULÆ annex at the end of the book. Minor changes to the page text consequent on the new arrangement are as follows:

Page 31 — “[See annexed Formulæ 2, 3, 4, 5.]” changed to “[See Forms 2, 3, 4, 5 in Formulæ annex.]”

Page 33 — “Subjoined are” changed to “See Formulæ annex for”

Page 34 — “(see note)” changed to “(see Formulæ annex)”

While the original style and content of the seventy-nine Forms has been carefully preserved, minor corrections to the layout of some have been made so that all are displayed to the reader in a consistent format. This avoids small but distracting variations on a page that look like errors in transcription. For the same reason, variations in the spelling of dosage measures in the Forms have been regularised. Thus “table spoonful”, “table-spoonful” and “tablespoonful” all appear as “tablespoonful”. Similarly for “teaspoonful” and “wineglassful”. Plural forms have been changed in the same way. For consistency, the regularising of these words has also been applied to their appearance elsewhere in the body text.

Ordinary footnotes have been re-indexed using numbers and moved to a FOOTNOTES section placed after the FORMULÆ annex.

References on a page to originally footnoted Forms are now clickable links to their text in the new FORMULÆ annex. Ordinary footnote references on a page are now clickable links to their text in the FOOTNOTES section.

For technical reasons beyond the control of the transcriber, long chapters in this EPUB version have had to be partitioned into smaller segments of text and illustrations. The reader will see the break between each segment represented as a ‘thought break’. They appear at places in the chapter where the author has started a new subject for discussion. These are easily recognised because the author features the subject title in *italic font* as the first sentence of a new paragraph. The following extract is an example:

The Surgical Treatment of Gonorrhœa.—The principal symptoms ....

When a thought break occurs before such a paragraph, it is displayed to the reader as a short, centered, rule thus:

———<>———

The original chapter text around a thought break is not altered in any way.

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