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TRACTS

ON

MEDICAL JURISPRUDENCE.

INCLUDING

FARR'S ELEMENTS OF MEDICAL JURISPRUDENCE.
DEASE'S REMARKS ON MEDICAL JURISPRUDENCE,
MALE'S EPITOME OF JURIDICAL OR FORENSIC MEDICINE, AND
HASLAM'S TREATISE ON INSANITY.

WITH

A PREFACE, NOTES,
AND A DIGEST OF THE LAW RELATING TO
INSANITY AND NUISANCE.

BY THOMAS COOPER, ESQ. M. D.

PROFESSOR OF CHEMISTRY AND MINERALOGY IN THE UNIVERSITY OF PENNSYLVANIA, AND HERETOFORE PRESIDENT JUDGE OF THE FOURTH JUDICIARY DISTRICT OF PENNSYLVANIA.

TO WHICH IS ADDED

AN APPENDIX,

CONTAINING

ERSKINE'S SPEECH for James Hadfield, indicted for Shooting at the King.

AN ABSTRACT Of a Report of the Trial of Abraham Kessler, indicted for Poisoning his wife with white arsenic, and laudanum, and a

MEMOIR on the Chromat of Pot-ash, as a Test for detecting Arsenic, Copper, and Corrosive Sublimate: by THOMAS COOPER, ESQ.

Read before the Am. Ph. Society, Sep. 18, 1818.

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ANNEX
Jurisprudence

Eastern District of Pennsylvania, to wit :

Be it remembered that on the Twenty-fifth day of May, in the Forty-third Year of the Independence of the United States of America, A. D. 1819, James Webster of the said District, hath deposited in this office the Title of a Book, the right whereof he claims as proprietor, in the words following, to wit :

“Tracts on Medical Jurisprudence. Including Farr’s Elements of Medical Jurisprudence.—Dease’s Remarks on Medical Jurisprudence.—Male’s Epitome of Juridical or Forensic Medicine, and Haslam’s Treatise on Insanity. With a Preface, Notes, and a Digest of the Law relating to Insanity and Nuisance. By THOMAS COOPER, esq. M. D. Professor of Chemistry and Mineralogy in the University of Pennsylvania, and heretofore President Judge of the fourth Judiciary district of Pennsylvania to which is added an Appendix, containing Erskine’s Speech for James Hadfield, indicted for shooting at the King. An Abstract of a Report of the Trial of Abraham Kessler, indicted for poisoning his Wife with white arsenic, and laudanum, and a Memoir on the chromate of pot-ash, as a test for detecting Arsenic, copper, and corrosive sublimate; by Thomas Cooper, Esq. Read before the Am. Ph. Society. Sep. 18, 1818.”

In Conformity to the Act of the Congress of the United States, intituled, “An Act for the Encouragement of Learning, by securing the Copies of Maps, Charts, and Books, to the Authors and Proprietors of such Copies, during the times therein mentioned,”—And also to the Act, entitled, “An Act supplementary to An Act, entitled, “An Act for the Encouragement of Learning, by securing the Copies of Maps, Charts, and Books, to the Authors and Proprietors of such Copies during the times therein mentioned,” and extending the Benefits thereof to the Arts of designing, engraving, and etching historical and other Prints.”

D. CALDWELL,

Clerk of the Eastern District of Pennsylvania.

PREFACE.

THE Study of Medical Jurisprudence is much more attended to on the Continent of Europe, than in Great Britain or in this country, where it has by no means received the attention due to its importance. I know of no book on the subject published here, or any lectures delivered, except those of Dr. Charles Caldwell, of Philadelphia, which were not attended so well as might reasonably have been expected, whether from the novelty of the subject or the ability with which it was treated. But the time is approaching when Medical Jurisprudence will force itself on the notice of the public, and exact the attention to which it is entitled.

To enable the medical and legal student to become acquainted with the elements of this branch of knowledge, I have published the book now offered to his perusal. I have preferred republishing the most approved tracts on Medical Jurisprudence, which have issued from the British press, to any composition of my own; because, where similar doctrines are advanced at different periods of time, by authors of reputation on the subject, they form an accumula-

PREFACE.

tion of evidence superior in weight and legal estimation to the summary of any compiler, however judicious. The Tracts on Medical Jurisprudence published in England, present us also with a much more condensed view of the subject, than the laboured, diffuse, and voluminous productions of the French press, such as those of *Mahon* and *Fodere*. This volume therefore, consists of such Tracts on Medical Jurisprudence as have been most approved in England. They do not indeed give a full view of the subject, but they present a condensed view of more important observations than are elsewhere to be met with, so far as I know.

I have added some Medical Notes, where the occasion seemed to me to call for them.

I have also drawn up a very condensed but full view of the Law relating to Insanity, chiefly from Collinson's Treatise on the subject, which is little known among the profession here: but cases of Insanity, and legal questions arising under those cases, are increasing among us, with an increasing population; so that I believe the profession will be glad of the Summary of the Law of Insanity here presented to them. Chitty in his late Digest of the Criminal Law, has attached so much importance to lord Erskine's Speech in Hadfield's case, that I have deemed it necessary to insert that elegant and well considered defence of alledged crime, on the plea of Insanity.

Kessler's case in New-York State, will serve to put Courts and Juries on their guard against the im-

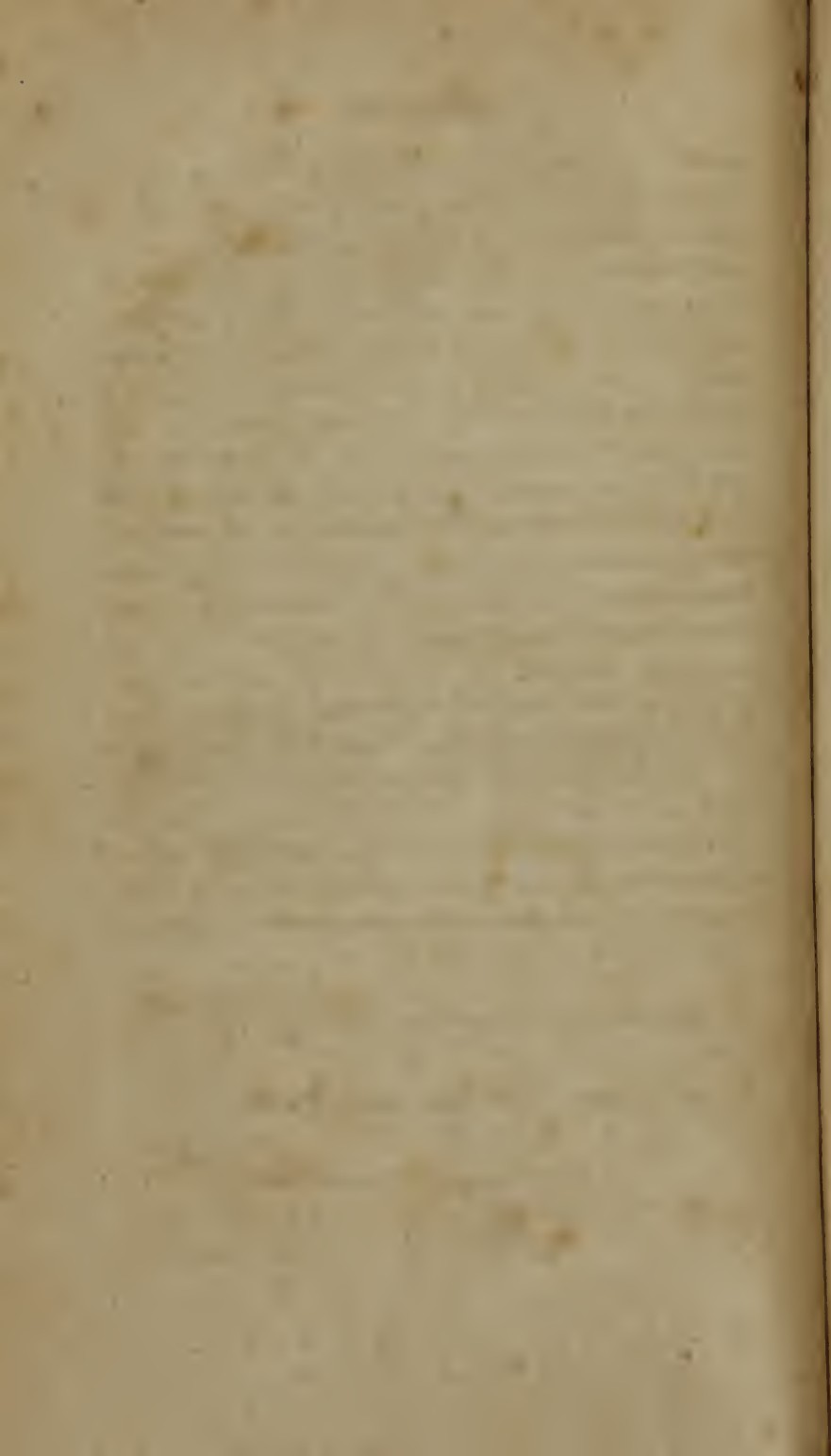
PREFACE.

perfect knowledge of Chemical Subjects, so disgracefully common among the Medical Profession in our country at the present day. I wish I could say that the subject of *Medical Chemistry* received its due share of attention in the University of Pennsylvania, but I cannot. In the present state of general knowledge, Juries will not be satisfied to receive from a medical witness the very slight information he may have brought away from the place where he received his medical education; and unless he attaches more importance to Medical Chemistry as he grows older, than he is taught to connect with it here, he incurs the hazard of finding more knowledge of the subject, among those who are not of the profession, than he possesses himself.

I have added my own method of detecting the poisons commonly exhibited, which I believe will be found somewhat superior to the tests usually employed.

Upon the whole, I believe this will prove an useful book both to the Professors of Law and of Medicine; and with this persuasion on my own part, I offer it to the public.

THOMAS COOPER.



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ELEMENTS

OF

MEDICAL JURISPRUDENCE :

OR,

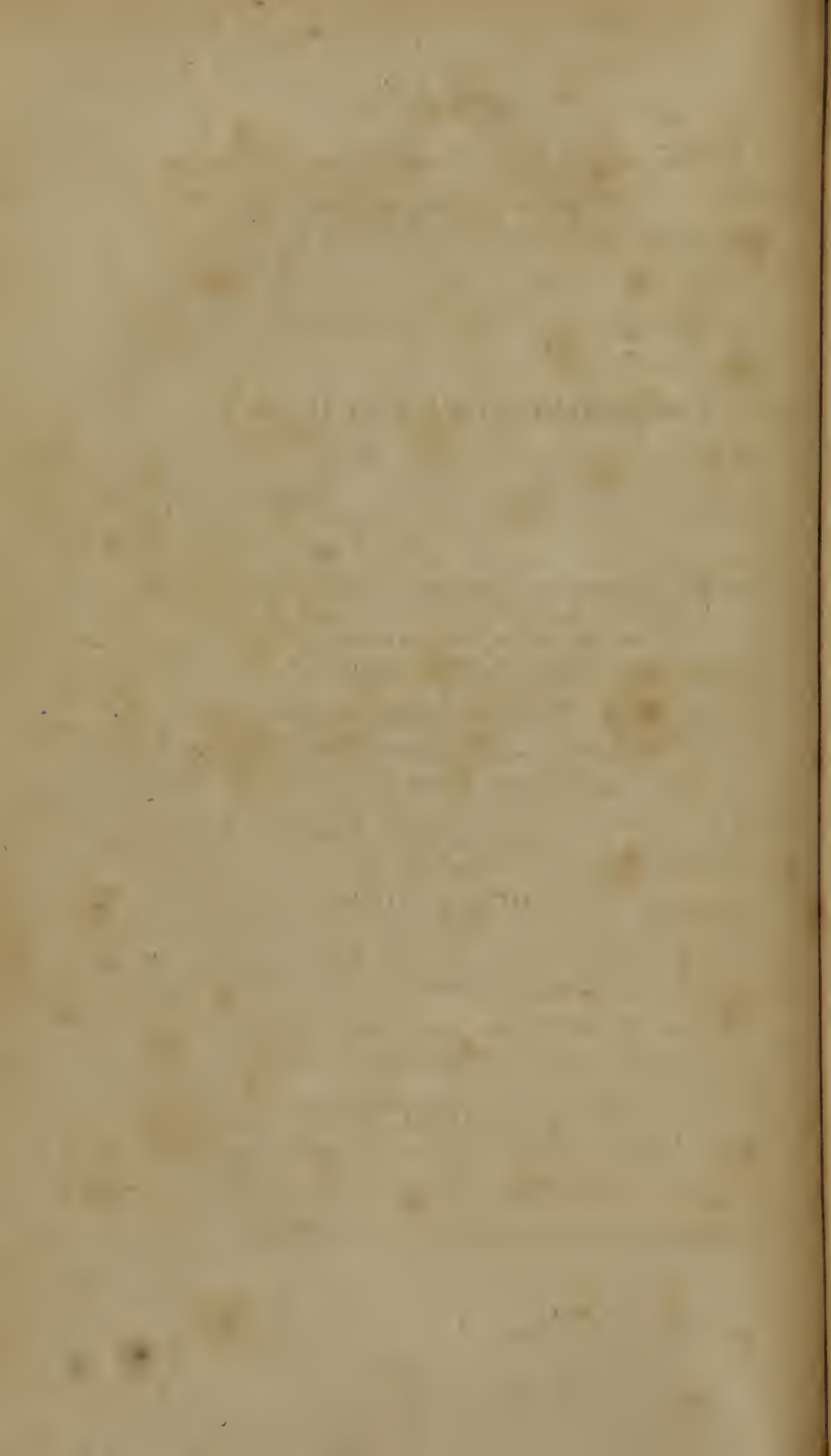
SUCCINCT AND COMPENDIOUS DESCRIPTION OF SUCH TOKENS IN THE HUMAN
BODY AS ARE REQUISITE TO DETERMINE THE JUDGMENT OF A
CORONER AND OF COURTS OF LAW, IN CASES OF
DIVORCE, RAPE, MURDER, &C.

TO WHICH ARE ADDED,

DIRECTIONS

FOR PRESERVING THE PUBLIC HEALTH.

BY SAMUEL FARR.



PREFACE.

The foundation of this little Work is taken from a Publication made at Geneva, in the year 1767, called 'Joh. Fred. Faselii Elementa Medicinæ Forensis.' This was a class-book of a learned Professor, but I imagined such a form, and the endless divisions which he has adopted, would appear tedious to an English reader, who generally admires works more in detail. I have therefore admitted only the materials of that publication, and have digested them into regular chapters, in which I have endeavoured as much as possible to follow the order of nature, beginning with births, and ending with the dissolution of our frame.

By altering the form too, I have not been obliged to adhere strictly to the text, but have varied from it very considerably, and some chapters I have entirely added, as that upon Madness, &c. whilst others I have omitted as useless in this country, as particularly one on Tortures, &c. But I hope, I have neither added what is tedious, nor omitted what is neces-

PREFACE.

sary to be known. As nothing of the kind hath ever been published in this country, I was willing to take the assistance of a learned foreigner, rather than travel a track unbeaten, by myself. I need say nothing concerning the utility of such a Work: it will readily be pointed out to every serious mind. Life and death are objects too important to be sported with in the manner they are sometimes: nor should the valuable connections of our fellow citizens be ever sacrificed to the ignorance of the faculty, the caprice of a court, or the artifices of revenge and disappointment.

SAMUEL FARR.

Curry-Rivel, Nov. 22, 1787.

INSTITUTES, &c.

INTRODUCTION.

THERE is a kind of medical knowledge, which is What part of the study of physic. not so much concerned in the cure of diseases, as in the detection of error and the conviction of guilt. **A** Whom employed. Where exhibited. physician, a surgeon, or a coroner, is often called upon to make a deposition of what he knows concerning some particular transactions in a court of judicature. Such persons then should be well acquainted with the animal œconomy, and with those views of the science which, in foreign countries, have been dignified with a peculiar name, as the medicine of the courts, legal Name. medicine, or medical jurisprudence.

This knowledge, in its more extensive sense, is divided into two different kinds, in one of which is explained those rules by which a court may form an accurate opinion of the cause: in the other, an acquaintance is acquired with the best methods of preserving the health of our fellow-citizens. How divided. Judicial causes. The first part, is Health of community. again divided into three, as the deposition is made in the civil courts, in the criminal courts, or in the ecclesiastical courts. But as the courts of foreign countries

are constituted upon different principles from those of this kingdom, I shall not follow the example of our learned professor, in arranging the rules of this business in that division, but shall give them in different chapters, according to the order of Nature, and let the reader apply them as he shall think proper.

Natural division.

CHAPTER I.

OF PREGNANCY.

THERE are so many decisions, both in civil and criminal courts dependent upon pregnancy, that an accurate knowledge of this affection is absolutely necessary to be acquired before a determination is made. And notwithstanding there may be an apparent indecency in the exposition, yet truth, propriety, and perhaps a life, are not to be sacrificed to a false delicacy, a mistaken modesty, or a love of ease.

A greater expansion of the abdomen than common, as it creates in a female the idea of pregnancy, may depend upon a fœtus, or any other body, filling up the womb, or parts adjacent. If it be any foreign body, it is called a mole, or false conception; if a fœtus, true pregnancy. This too is of two kinds, ordinary and extraordinary. The first, when one or more fœtuses are lodged in the hollow of the womb itself; the latter, when they are deposited in the ovarium, the fallopian tube, or the general cavity of the abdomen.

Many decisions depend on a knowledge of it.

Marks of Pregnancy.

Distin-
guished
from other
appear-
ances.

Mole what.
Ordinary.

Extraordi-
nary.

The ovarium is that substance in the female body, which answers to the testicle in that of the male, and is supposed to contain the germen of the future animal. The fallopian tube is a duct which is supposed to convey the male semen from the womb to the ovarium, and to embrace the uterus in the time of conception. It is natural to suppose then, that sometimes the fœtus may be lodged in these bodies, and seek an exit which it can never obtain.

It is not uncommon for women of abandoned characters, or even married women, to conceal and deny their state of pregnancy; and in such cases, no accurate judgment can be formed till a proper examination be made by a medical person, and those signs of true pregnancy be discovered which are generally acknowledged. These signs are various, and they may be distinguished into certain, uncertain, and false.

Signs.

Certain.

The certain and most common, and which may be taken about the time when half the gestation is completed, are,

Swelling
of abdo-
men.

1st. A swelling of the abdomen, which arises from no morbid cause, which continues to increase so, that it extends from the lower part even to the summit, which has a shining appearance, and which is peculiarly sharpened about the navel. At the same time a troublesome sensation, peculiar to such a situation, is perceived, and other signs of pregnancy occur.

Orifice of
the womb
altered.

2d. The orifice of the womb is thicker, more spongy, soft, and widened; is shorter, and exhibits neither a conical nor cylindrical figure.

3d. A motion of the fœtus is perceived in the Motion of fœtus.
womb.

4th. There is a suppression of the menstrual flux, Suppression of menses.
when it cannot be accounted for from some evident disease, and when the symptoms which accompany it do not remit, as is the case when it arises from some other cause.

5th. A swelling and hardness of the breasts, with Swelling of breasts.
an inflation of the nipple, and the veins of the breasts assuming a blue colour. The disk round the nipple is of a dusky brown colour, and the little eminences are much enlarged.

6th. A lymph flows from the breast upon pressure, Milk in breasts.
which are streaks of true milk.

The uncertain signs of pregnancy, are frequent Uncertain signs of pregnancy.
vomiting, especially in a morning; a constipation of the belly; an incontinence or suppression of urine, difficult respiration, irregular appetite, a fondness or aversion to particular kinds of food, head-ach, vertigo, pain of the teeth, yellow spots in the face, the belly growing flat, a descent of the orifice of the womb, enlargement of the veins, swelling of the legs and feet, and pains in the loins, &c.

The false signs of pregnancy have arisen from False signs.
some superstitious notions which are now exploded, and therefore we shall omit to mention them in this place.

It appears, however, that no accurate judgment can How to form a judgment.
be formed, but from the certain signs; and a knowledge of these can only be acquired by a minute examination and immediate inspection of the parts.

This, upon account of decency, is generally committed to midwives, ignorant persons, who have no knowledge of the animal œconomy, and may easily be deceived. It would be much better then, that this office should be entrusted to the more regular practitioner, who being a person of education, would add the influence of his judgment to his examination, and would not be content with a single enquiry, which may be uncertain, but would frequently repeat it, till he had perfectly ascertained the truth.

Feigned
pregnan-
cy.
How dis-
covered.

Women sometimes likewise feign themselves to be pregnant when they are not so. The absence of those signs before described, would be sufficient to confute them; but, as much artifice is often used upon such occasions, it may be necessary to examine a little further, and here the following signs present themselves: An improper age, either too tender or too perfect; a preternatural defect of the menses, even in those of a fit age; too great a flow of them; a copious and inveterate fluor albus; various diseases of the vagina, as the orifice of it being entirely shut, or a junction of its sides, so as not to admit an entrance; various diseases likewise of the womb, such as a schirrus, or fleshy excrescences growing up in it, or its mouth being entirely closed.

Signs.

CHAPTER II.

OF PARTURITION OR CHILD-BIRTH.

PARTURITION may be received in several senses. At one time it means the action of bringing a child into the world: at another the child itself, which is received into being. Parturition what.

When taken in the first sense, it is divided into ordinary and extraordinary. The ordinary is, when the delivery is made in the common and usual manner, or rather by the common passages, notwithstanding any difficulties which may occur in the operation: for this is again divided into natural and preternatural, or artificial. The extraordinary delivery is when it is performed by the Cæsarean operation, which is an extraction of the child, by making an incision thro' the abdominal muscles into the uterus. This is seldom performed upon the living mother, but may be, and is indeed always adviseable, should the mother die before she can be delivered, and life is perceived in the child. In this way some great personages, and particularly our Edward VI. is said to have been born. Ordinary. Extraordinary. Cæsarean operation.

Another method lately proposed in France, and absolutely put in practice upon living subjects, is, by dividing the cartilage which binds together the bones that surround the womb, and thus enlarging the opening. This may likewise be called extraordinary, though the delivery be made by the natural passages; yet the strictness of terms confines it to those labours which are made by passages different from the common.

When parturition relates to the child itself, it may denote the time when it is born, the conformation of its parts, or the external figure which it presents, the state of its life, and the number which are brought into the world.

When it relates to the time in which it is born, it may be considered either as perfect or mature, or immature and imperfect. The former, when gestation has been carried on at least nine months: the latter, when it is completed before that time; and in this last case, another division may be made into abortions, where the delivery is made before the seventh month; and premature births, where the child is born between the seventh and the end of the ninth. To this head also belong too late deliveries.

The signs of an immature child are taken from the following particulars.

1st. From its length, for if it be not one foot long, we may be nearly certain that it is not completely formed.

2d. From its weight, which should exceed five pounds.

3d. From the figure of the head, &c. An incomplete child has a deformed face resembling an old person, with a wide mouth and slender ears like membranes; its eyes are shut; the hair of its head is of a whitish cast; the division between the bones of the skull, called the rhomfoidal future, gapes wide; the bones themselves are moveable; and the lips of the mouth resemble pieces of bloody flesh. Figure of parts, &c.

4th. From its habit of body, which is for the most part thin and tender, and covered with a short down, and is of a reddish hue, particularly on the extremities and the face. If it be a male, the scrotum is of a round figure, and the testicles are not contained in it. Habit of body.

5th. From its limbs, which are thin and weak, and the nails upon its fingers are soft, short, not extending beyond the fingers; nay, if it be very small, as of one or two months, the nails are by no means perceptible, either upon the fingers or the toes. Limbs.

6th. From the conformation or constitution of its bones; for it is evident from experience, that in every month of gestation, there is some alteration in this respect; ex. gr. in a fœtus of five months, the orbits of the eyes are entirely formed into bony sockets, and in one of seven months, the small bones, subservient to the organ of hearing are so perfect, as scarcely to differ from those of a complete child. Conformation of bones.

7th. From the umbilical cord, which is very slender. Umbilical cord.

8th. From other curious circumstances which attend this little embryo, such as a constant indulgence in sleep, an abstaining from crying, an intolerance of Other circumstances.

cold, an indisposition to suck, or to use its limbs, or the muscles of other parts, such as those which are subservient to the evacuation of urine, or the depositing of the meconium.

Signs of perfect child.

The signs by which we distinguish a perfect child are taken,

Size.

1st. From its size, its length being at least one foot six inches.

Weight.

2d. From its weight, which should be at least six pounds.

Formation of bones.

3d. From the formation of its bones, which is known only by experience. But in general a child can hardly be called complete, all whose bones and every part are not entirely formed, though age may give some addition to their substance.

Umbilical cord.

4th. From the umbilical cord, which is thick and firm.

Other circumstances.

5th. From other circumstances, opposite to those in that which was imperfect, such as that he cries, moves his limbs, opens his eyes, sucks at the breast, is not always asleep, can bear cold, has a white skin, can evacuate urine and the fæces, has long nails, and his head covered with hair.

Monsters what.

That which relates to the conformation of a child, after it is brought into the world, is distinguished into monstrous, and not monstrous: the former including all deviations from the ordinary figure of man. Monsters are again divided into perfect and imperfect.

Perfect.

A perfect monster is that which absolutely differs in all its parts, from the human appearance, as when it resembles any brute animals, as a dog, an ape, &c.

An imperfect monster is where only a partial alteration is made in its figure; and this may again differ, according as this partial alteration is made in the head, or other parts; and this as it may be born without a head, or with the head of a beast, &c. Where a monster differs from a complete child, in other parts besides the head, it is distinguished into two sorts, as any parts in general are affected, or as more particularly the change is wrought in the genitals only, and then it is called an hermaphrodite, which is likewise perfect or imperfect.

In an inquiry into the nature of monsters in general, three objects of consideration present themselves. 1st. What is the cause of monsters? 2nd. Whether they are possessed of life? 3d. Whether a perfect monster can be considered as a human being?

1st. The cause of monsters is various, as depending on such changes in the constitution of the mother, as can hardly be accounted for.

Whatever view we take of the theory of generation, whether a germen be formed in the ovarium of the female, which is only impregnated by the semen of the male, or whether the homunculus is contained in that semen, and the female affords a nidus for its formation; still we see a strong resemblance to both parents in their offspring: and accidents, or other causes, contribute to make an entire alteration in the form of the fœtus, and produce monsters. We will not suppose unnatural connections, or that any impregnation can arise from that source; but imagination has a great power over the body of a female, espe-

cially during gestation; and the fluid in which the foetus swims, or the womb itself may be disordered, so as to occasion great changes. Neither need we have recourse to the theory of the ingenious Buffon to explain how these are brought about; or suppose that every part of the human body has a representation in the fecundating quality of both parents, to form its construction. The first rudiments or germen of the human body is not a human creature, if it be even a living one; it is a foundation only upon which the human superstructure is raised. This is evident to anatomical observation. Were a child to be born of the shape which it presents in the first stages of pregnancy, it would be a monster indeed, as great as any which was ever brought to light. How easy then is it for disorder to prevent the exertion of that plastic force, which is necessary to form a complete animal.

Whether
monsters
can live.

2d. Monsters may live, but it depends on what parts are affected, how long life shall be continued to them. Where the monstrous parts are confined to the extremities, or even to those places which distinguish hermaphrodites, we find from experience, that the vital powers are strong and vigorous; and were it not that such beings often fly from society, lead sedentary lives, and are deprived of some wholesome exercises to the human constitution, life might be enjoyed by them, and to as great an extent as by any other persons.

Are there
perfect
monsters.

3d. With regard to perfect monsters, most of the authorities which assert that any thing of that kind

can exist, seem to be of no credit. But should any ever appear, we should consider that it is not form or shape, but reason and intelligence, which distinguish human creatures from brute animals.

We are next to consider the nature of hermaphro-^{Herma-}
dites; and as these are living beings, and sometimes ^{phrodites,}
^{what?} capable of all the functions of society, such distinctions ought to be made relating to them, as will place their situation in the most proper light, and the most favourable to their happiness. They are great objects of our pity and complacency, for they are not only deprived of the common pleasures of mankind, but are subject to disorders which are painful, uncomfortable, and inconvenient. A perfect hermaphro-^{Perfect.}
dite or a being partaking of the distinguishing marks of both sexes, with a power of enjoyment from each, is not believed by any one ever to have existed. Im-^{Imperfect.}
perfect hermaphrodites, or monsters whose organs of generation are affected, are frequently presented to us. They may be divided, according to the sexes, into what are called androgynus, and androgyna. The ^{Androgy-}
^{na.} first is the male, who has in general his own organs tolerably perfect, but has some division in the flesh above, below, on or in the scrotum, which puts on the appearance of the female pudendum. The penis likewise may be so obliterated, as to give no external appearance of the male, but the beard, and the constitution of his body, confirm him to be of that sex. The androgyna is a woman, who has the parts of ^{Androgy-}
^{na.} generation nearly like another, but at the same time the clitoris grows to a great size, and gives the form

of the male penis. This is a very inconvenient disorder, as she is sometimes deprived of the pleasures peculiar to her sex, and suffers much from disorders of the part. From her breasts, and the deficiency of beard however, she is distinguished from the male; though it frequently and unfortunately happens, that such women are more subject than others to robust and masculine constitutions. It is evident that the sexes here are as completely marked as in other persons, and to all legal intents and purposes, they are man and woman.

Herma-
phrodites,
how far
impotent.

Should
they mar-
ry?

May they
change
sex?

When
does a fœ-
tus begin
to live?

What is
concep-
tion?

Some important enquiries may arise upon this subject. As 1st. How far they are to be considered as impotent? This is, I believe, generally the case, but not always, and must depend upon proof. 2d. Whether they should be permitted to marry? This depends upon the former, but must, I should think, be left to their own choice. 3d. Whether change of the sexes might be allowed? This is certainly contradicted in the terms, and will admit of no dispute.

With regard to the state of life of a child, the following question requires to be decided. At what time may a fœtus be supposed to begin to live? To answer this we must consider, that conception is made in the ovarium of a female after coition with a male, when the semen hath produced turgescence and motion of the circulating fluids of the germen. At this time it may be said, that life begins, i. e. immediately after conception. Hence those seem to err, 1st. Who would persuade us, that the fœtus acquires life when it is so particularly active, that the mother becomes sensible

of its motions. 2d. Those who think that life does not begin till the seventh or fourteenth day, or even till a month after conception. And 3d. Those who suppose that a foetus, as long as it continues in the womb, where it does not breathe, cannot be called a living animal. The whole depends on our ideas of life and animation, and the act of generation to create it. If generation be the cause of animating the rudiments of the future being, and if that animation be construed to be understood by what is meant by life, then it must certainly begin immediately after conception, and nothing but the arbitrary forms of human institutions can make it otherwise.

On this occasion we may enquire, what part of the human body is the seat of animation, or the soul? Seat of the soul. To which we answer, that evidently it resides most conspicuously in the brain, because that substance being hurt, all the faculties of the soul become disordered; and because all the nerves of the body, which are the great instruments of action, are derived from it as a fountain. But it cannot be supposed that the whole of the brain is the immediate seat of the soul; it is probably confined to what is called the sensorium commune, or a small part from whence the nerves, destined to sense and voluntary motions, draw their origin; as they do likewise from an appendix to it, called the medulla oblongata.

The next thing to be considered is, what kind of children, when born into the world, are to be deemed What children have the power of life. endowed with life, or have a prospect of living; for a foetus cannot live out of the womb of its mother?

No abortion.

1st. Then, no abortion can be said to be endued with life, for if there be some signs of life when it is brought into the world, it cannot continue to live, for it can neither take the aliment which is necessary to its sustenance, nor if it could take it, can it change such gross food into its tender nature. Some authors have asserted, that children of five and six months have lived; but this is probably a mistake, it being generally agreed, that infants so young cannot sustain the inclemencies to which they must be subject.

Children of seven months.

2d. Children of seven months, or one hundred and eighty-two days after marriage, may live, though generally they are puny, and continue but a short time on earth.

Children above seven months.

3d. All children above seven months are supposed to be endued with vital principles, and of consequence are allowed the privilege of life.

The next subject of consideration, is that of twins, suppositious births, and superfœtation.

Twins how considered.

The right of premonition must be determined in natural births, by that which was first born into the world, and which must be decided by the by-standers. If the delivery, however, be made by a passage effected by art, the choice depending on the will of the surgeon, no proper determination can possibly be made.

Suppositious births.

In the affair of suppositious births, two questions occur, according as the birth is performed or not. In the former case, a physician may judge, 1st. From those signs in the mother, which distinguish her having been delivered of a child. 2d. From those signs which refer to her incapacity of conception. 3d. From

Signs to judge by.

signs of impotency in the father. 4th. From the umbilical cord in the child not appearing as of one just delivered. Some persons look upon the dissimilitude to the parents to be a sign, but this must be very fallacious. Where the suppositious birth depends on the present state of pregnancy, either the proper signs must be examined, or we must wait the event, should those signs deceive us.

The impregnation of a woman already pregnant, is called a superfœtation. This is either true or false; ^{Superfœ-} the former is when it happens in the womb itself; ^{tation.} the latter when one fœtus is deposited in the womb, the other in the ovarium, the fallopian tube, or the cavity of the abdomen.

The following requisites are necessary to a super- ^{Requisites.} fœtation. 1st. The pregnant woman ought to bear two children, each of a distinct age. 2d. The delivery of these children should be at different times, at a considerable distance from each other. 3d. The woman must be pregnant, and a nurse at the same time.

There have been many doubts about the reality of this superfœtation, but there is no disputing of facts, for which see Gravel on Superfœtation, Eisenman's Anatomical Tables, and the Leipsic Memoirs, 1725.

How this superfœtation is accomplished, is a matter of enquiry, and depends in a great measure on the constitution, or rather the formation of the womb of the mother.

The last thing to be considered under this head of ^{Legitima-} parturition, is the legitimacy or illegality of births; ^{cy.} and this is divided into the time when a child is born ^{Divided} ^{from time.}

after conception, and the conformation of its body. With respect to time, physically considered, (for laws may be as arbitrary as they please in this respect) all abortions, too early births, children of nine months, and those who are late born, even to ten months, may be considered as legitimate in old marriages. Illegitimate with respect to the time of birth, are all perfect and mature children, who are born in the sixth or seventh month after the celebration of marriage; and all late births, when extended to the eleventh, twelfth, or thirteenth month, especially if the husband died of a chronic or lingering disease.

Causes of
delay in
delivery.

There are many causes alledged to occasion a delay or prolongation of delivery, such as great care and anxiety, some severe diseases, as violent hæmorrhages, a phthisical disposition, &c. but these one should imagine would rather hasten than retard such a circumstance. Experience is the only guide we can follow in such cases, and, for the sake of humanity, the longest time that can be fairly proved should be the standard to which we should refer.

Legitima-
cy from
form.

With respect to the conformation of the body, all children may be considered legitimate, who are born at or after seven months; but all abortions are illegitimate. Monsters likewise are not to be excluded for any trifling alterations; but where all appearances of human nature are obliterated, it would be wrong to take advantage of such a birth.

CHAPTER III.

ON DIVORCES.

IT is generally allowed, that various disorders may constitute natural grounds for a divorce between two married persons; and notwithstanding the laws of particular countries are generally founded on local customs, and do not always refer to the natural reasons, yet, as no other concern the medical person, and as they are proper to be known, no further apology is necessary for their insertion in this place.

Those disorders, or rather as they may be called defects of the human constitution, which seem to constitute the natural reasons for a divorce, are such as are an absolute impediment to the procreation of children. They are of two kinds, according as they have for their subject the organs of generation or not. The former may be divided into impotence in men, and sterility in women, which is either absolute or *continual*, or such as eludes all human art to remove.

Absolute impotence in men takes place,

Impotence.

- Eunuchs. 1st. When they are eunuchs, or are deprived of both testicles, which being receptacles of the semen, without them no generation can be performed.
- Spadones. 2d. When they are spadones, or such as have the nerves or muscles leading to the parts of generation bruised, so as to deprive them of all perception of the venereal appetite.
- Short penis. 3d. When the penis is too short, being amputated for disease.
- Penis perforated. 4th. When the penis is perforated in such a manner, that the semen cannot be thrown out with sufficient force. This rule is to be admitted, with some limitation, as the theory of generation is not sufficiently established to determine with accuracy this point.
- Schirrous testicles. 5th. When both testicles are become schirrous, so as not to be capable of a cure.
- Semen watry. 6th. When the semen is too watry, and will not admit of amendment. This too being a disease that admits of a cure, should not determine absolutely.
- Penis thick. 7th. When the penis is too thick. This is likewise only relative.
- Phymosis. 8th. When the preputium is so constructed or fastened to the glans penis, as not to admit of relief by a surgical operation. This disease is called capistration.
- Schirrous vesiculæ seminales. 9th. When the vesiculæ seminales are become schirrous.
- Diseases grounds for divorce. Those disorders, which are an impediment to the procreation of children, and which are not derived from the organs of generation, are such as are of a

highly contagious nature, or create an unconquerable aversion; such as the lues venerea, melancholy, epilepsy, scurvy, scrophula, and a highly fœtid and disagreeable breath. But it is to be hoped, for the honour of physic, and the benefit of humanity, that such diseases will meet with their proper cure: and indeed in all the cases here mentioned, as the happiness of individuals is so much concerned, and the public good on the other hand so much to be studied, it is necessary that the observations be made with the greatest care, and that the maturest judgment of the physician be exercised with discretion.

Absolute sterility in a woman, so as to unfit her for matrimonial duties, are, Sterility.

1st. When the parts destined to generation are so imperforate as not to admit of any relief without incurring great danger of life. Parts imperforate.

2d. When she is so grievously afflicted with the fluor albus, (vulgarly called the whites) as not to admit of any cure. Much care and attention are here however requisite, and many medicines are to be tried before an absolute judgment be made: nay, I should think much experience must be admitted, and the husband likewise be examined carefully with regard to his own abilities. Fluor albus.

3d. When the vagina is too straight and narrow, upon account of schirrous tumours, or of any other kind which it is impossible to remove. Vagina straight.

4th. When the orifice into the uterus is entirely closed. This will be known not only by the touch, but by the retention of the menstrual flux, which in Orifice of womb closed.

time will force a passage, or from the dreadful symptoms it induces, require the hand of the surgeon to procure it. This can hardly be called therefore an absolute impediment.

Ulcer of
womb.

5th. When there is an ulcer in the uterus, or the passages to it, which sometimes is of so corroding a nature, as to penetrate the rectum and bladder of urine. There are many other causes of sterility, which are derived from injuries or obstructions in the internal parts destined to generation. But here all is darkness, and it would be cruel to determine by any other, than what are quite evident upon inspection and accurate examination of the parts.

Internal
parts dis-
eased.

Defects in
generation

Before this subject be dismissed, it may be necessary to mention some other circumstances, which, although they may not render either sex absolutely impotent, yet may be considered as defects, and some hindrance to the generative powers, but by no means constitute reasons for a divorce: ignorant persons may consider them as such; this error is therefore to be guarded against.

Those which occur in the male sex are, where they are,

Monor-
chides.

1st. Monorchides, or such as have only one testicle. These are by no means incapacitated, as the secretion only is made in that organ from which it is carried to the vesiculæ seminales, and there deposited for use. So that one testicle is as efficacious as two, and the secretion is always proportioned to the evacuation.

Trior-
chides.

2d. Triorchides, or those who have three testicles.

- 3d. Spadones, where one testicle only is bruised. Spadones.
- 4th. Androgyni, for which see the account of hermaphrodites in the last chapter. Androgyni.
- 5th. Those who are circumcised. This is an advantage rather than a hindrance. Circumcision.
- 6th. Those who have remedied this defect by art. Paraphimosis cured.
- 7th. Chrysporichides, or those whose testicles do not lie in the scrotum, but in the abdomen, or in the groin. Chryspotichides.
- 8th. Those who labour under a phymosis, which is a disorder where the præputium is brought over the glans penis, and cannot be retracted but by art. Phymosis.
- 9th. Those who have the præputium buttoned over the glans. Præputium buttoned.
- 10th. Those whose penis is longer or shorter than natural, unless in very great extremes. Long and short penis.
- Women cannot be said to be incapacitated totally. Defects in women.
- 1st When they have a falling down of the womb, for this may be only temporary, and may be remedied by art. Prolapsus.
- 2d. When they have too large a clitoris, or nymphæ. Large clitoris.
- 3d. When they are androgynæ, or hermaphrodites from other causes. Androgynæ.
- 4th. When they have the pudendum too large and wide. Parts large.
- 5th. When they have an irregular flow of the menses. Flow of menses.
- 6th. When they have suffered in delivery a rupture of the *perinæum*, or the space between the fundament and pudendum. Rupture of perinæum.

CHAPTER IV.

ON RAPES.

In the consideration of rapes, three objects of attention present themselves.

Objects of attention.

1st. Whether a rape, strictly so called, be possible?

2d. Whether a woman, upon a rape being committed, can become pregnant?

3d. What are the signs of a rape being perpetrated?

Is a rape possible?

1st. In answer to the first question, whether a rape be possible, meaning upon a grown person, it may be necessary to divide it into two parts, as it is distinguished into the attempt and the consummation of a rape. The attempt, under which is to be understood a great force exercised over a woman to violate her chastity, but where a complete coition is prevented, may be possible. But the consummation of a rape, by which is meant a complete, full, and entire coition, which is made without any consent or per-

Attempt.

Consummation.

mission of the woman, seems to be impossible, unless some very extraordinary circumstances occur: for a woman always possesses sufficient power, by drawing back her limbs, and by the force of her hands, to prevent the insertion of the penis into her body, whilst she can keep her resolution entire. Besides, it is evident that a lesser resistance can prevail against the motion of any body which acts against the weight; and that is the case here: the penis, in attempting an immission into the vagina, moves a body against the weight.

2d. With respect to the next question, whether a woman, upon whom a rape hath been committed, can become pregnant? It may be necessary to enquire how far her lust was excited, or if she experienced any enjoyment. For without an excitation of lust, or the enjoyment of pleasure in the venereal act, no conception can probably take place. So that if an absolute rape were to be perpetrated, it is not likely she would become pregnant.

3d. The signs of a rape having been perpetrated, or rather attempted, are taken from the evacuation of blood from the injured parts, and great swelling and inflammation. But as these may be induced by other means, or are not inconsistent with consent having been obtained, they can only be considered as corroborating, but not as certain proofs.

As rapes however are sometimes committed upon young children, who may have the signs of their virginity obliterated by them, it may be necessary to consider what are those signs, and what are the marks of

Signs of
virginity.

their being destroyed. The signs of virginity then, may be allowed to be the following.

1st. The lips of the pudendum are more prominent, and close together.

2d. The nymphæ are small, endued with a light rose colour, and do not extend out of their place.

3d. The prepuce of the clitoris is small, and does not cover the glans.

4th. The orifice of the urethra, or urinary passage, is entirely covered.

5th. The wrinkles of the vagina, are considerable, and raised above the surface.

6th. Sometimes a bridle or frœnulum appears before the lips of the pudendum.

7th. Sometimes also, the hymen is present; by which is meant a thin tense membrane, situated at the entrance into the vagina, being sometimes of an oval figure, sometimes circular, and sometimes semi-lunar, and shutting up greatest part of the passage. This hymen hath been esteemed a certain mark of virginity, when other circumstances concur to give it authority. It is not, however, by any means absolute, even in the youngest subjects; for it may be so concealed in the back of the vagina, as not to be perceptible at first sight, or it may be destroyed or obliterated by a variety of causes, besides a connection with a male. A fresh rupture of it, however, may be perceived, and some remains of it will continue evident for some time.

Marks of
having
used vene-
ry.

The marks by which it is most probable that a female hath accustomed herself to venereal habits, and

of consequence is less to be believed upon a deposition for a rape, are the following.

1st. The lips of the pudendum are flaccid and distended more than in a maiden.

2d. The clitoris is enlarged, and hath a prepuce which covers the glans arising from constant friction, and is produced to defend it from injuries, in proportion as it is exposed to them.

3d. The nymphæ are likewise enlarged, and are of a lighter and more obscure colour.

4th. The orifice into the urinary passage is more open and exposed. This is owing to the flaccidity of the labiæ.

5th. The hymen is wanting, as may naturally be supposed, but it is not to stand as a test by itself, where the other circumstances do not occur.

6th. Some small excrescences arise in the shape of the berries of the myrtle (called from thence *carunculæ myrtiformes*) at the entrance into the vagina.

7th. The vagina is enlarged and spacious, and this even where there has been no parturition.

8th. The wrinkles are less prominent, and in length of time are quite obliterated.

9th. The orifice of the uterus approaches nearer than before to the orifice of the vagina. This, however, must be entirely relative, as the extent of the vagina must differ in every subject; and besides, it presumes upon an acquaintance with the person previous to the habit she is engaged in, which is not easily to be acquired.

CHAPTER V.

OF THE MURDER OF INFANTS.

Confined
to what
ages.

THIS kind of homicide relates to the youngest and most helpless part of the human species, and is confined to them in three states of their existence : just before they are born, at the time of delivery, and immediately or soon after they are brought into the world. The two last may be included together, and constitute child murder, strictly so called, and the other a murder of a child in its abortive state, or the premature delivery of it so as to procure its death.

State of
the
mother.

We shall first consider the state of the mother, after she has been delivered of a child, as a leading fact upon which much depends with regard to the destruction either of infants or abortions, and then the particular nature of each of these homicides.

Signs of
delivery.

The signs that a woman hath been delivered of a child, are of two kinds, as this circumstance is recent, or has happened for some time back. The signs of the former are,

Recent.

1st. An extraordinary swelling of the external parts of generation.

2d. A preternatural distension of the vagina.

3d. A flow of the lochia, which is a discharge that differs from the common menstrual flux, in being of a paler colour, and having a sourish disagreeable smell.

4th. The orifice into the uterus is soft and open, as if a late discharge had been made from it; the womb itself too not having properly collapsed and taken its natural shape.

5th. There is a roughness and flaccidity of the abdomen, which is sometimes covered likewise with wrinkles.

6th. The breasts are swelled to a larger size than common, and are hard and troublesome to the touch, sometimes loaded with excrescences that feel like schirri.

7th. Milk is found in the breasts, which, when curdled, forms the knots above mentioned, and may be extracted from them by pressure, or by suction.

8th. The nipples become thick and strong, and the disk round them is much widened.

The signs that a woman hath formerly been de- Former-
livered of a child, are the following.

1st. All the signs of her having lost her virginity in the last chapter.

2d. The orifice of the womb has not its usual conic figure, and is more open than in a maiden.

3d. The lips of the orifice of the womb are unequal.

4th. There is a roughness of the abdomen, which is likewise more expanded. and pensile or hanging down.

5th. There are small white and shining lines running on the abdomen.

6th. The frænum of the labiæ pudendi is obliterated.

7th. The breasts are more flaccid and pendulous.

8th. The lines on the breasts are white and splendid.

9th. The colour of the disk is brown.

10th. The nipples are prominent.

11th. There is a prominence of the inner coat of the womb.

12th. There is sometimes an inversion of this body.

Marks of
abortion.

The marks of abortion depend on the length of the pregnancy, and must be referred to the judgment of the physician, &c. In general they are only those of lost virginity. Vide last chapter.

In order to explain those distinctions by which we are to know that an infant who has been found dead and exposed, was murdered by any inhuman hands or not, we should divide them,

Division of
the signs
of murder.

I. Into those signs by which we know that the child might be born alive, and afterwards be destroyed.

II. Those more evident marks, by which we ascertain that it was brought into the world dead.

III. Those which accurately point out, that force and violence were exercised to deprive it of existence.

IV. Those more particular distinctions which are to be made upon a thorough inspection and dissection of the dead body.

Signs that
a child was
born alive.

I. We know that a child has been born alive, when we find that it has exercised any of the vital actions, by which is meant, not those similar actions by which

life is supported when the fœtus remains in the womb, but those real actions which are in force after the child is brought into the world. These are the circulation of the blood, and respiration, such as is enjoyed by animals after their birth.

The following may be esteemed proofs that a child hath enjoyed the circulation of its blood after it is born, and thus may be said to be born alive. Signs of circulation of blood.

1st. The mother, during the whole state of her pregnancy, must have enjoyed a good state of health, and have perceived the motions of the infant to the time of her delivery.

2d. The child, when born, must be of a proper length and weight. Vide chap. ii. p. 15.

3d. The blood vessels of the child must not be replete with blood.

4th. There must be a settlement of blood in divers parts of the external surface of the skin.

5th. The body of the child must not be rough nor flaccid.

6th. The umbilical cord should be full of juice, and of a white colour.

7th. The placenta, if it be to be found, should be turgid, and its vessels full of blood.

8th. In places that may be pressed in different parts of the body, the blood ought to stagnate, and become coagulated.

9th. A froth should appear upon the mouth of the infant, and stick about its lips.

10th. There should be every appearance of a natural delivery.

It should be remarked here, that these signs should be taken collectively; scarcely any of them will avail when taken separate from each other.

Signs of respiration.

The signs that an infant has breathed after it is brought into the world, are,

1st. The act of vociferation after delivery, if positive proof of such a circumstance can be obtained.

2d. The lungs being endued with a colour approaching to a white, being of less specific weight than others, when the child never breathed through them, and being put into water, having a disposition to swim in it. This will be considered more fully.

3d. The lungs are more expanded than in dead subjects, and previous to delivery adhere to or rather fill up the cavity of the thorax.

Signs of an infant being dead.

II. The signs by which we can in some measure determine that an infant was brought into the world dead, are to be derived from the following circumstances, and which appear to be of the utmost note.

1st. When the mother has been for some time afflicted during the time of her pregnancy, with various severe disorders.

2d. When she has not perceived for some time the motions of the infant in her womb.

3d. When upon a dissection of the head of the infant, the brain appears fluid like water, and has not its usual substance.

4th. When the heart and other blood-vessels are filled with thick and coagulated blood.

5th. When the body of the infant has its flesh collapsed and contracted, its skin soft and flabby, and its whole appearance of a red or scarlet colour.

6th. When compressions on the surface are attended with no *ecchymoses*, or stagnations of blood.

7th. When the blood is of a putrid nature, whilst it continues in the vessels.

8th. When there are evident signs of a putrefaction having taken place, whilst the child was in the womb, such as a separation of the cuticle from the inner neat surface of the skin; the umbilical cord being rotten, wrinkled, of a yellow colour, and as if melting away; a swelling of the abdomen, and a soft tumefaction of the whole body.

9th. When the umbilical cord is not only rotten, but devoid of humours.

10th. When the bones of the skull of the infant are softer and more disjoined than in one born alive.

11th. When other internal parts besides the brain are found corrupted and decayed.

12th. When the *placenta*, or after-birth, at the time of delivery, or soon after, is in a state of corruption.

13th. When there is a defect of the excrement in the large intestines, and of urine in the bladder destined to its use.

14th. When parturition was exceedingly laborious.

15th. When the lungs are more dense than in a live subject, have a red colour, subside in water when they are thrown into it, and are so collapsed as not to fill up the cavity of the thorax.

16th. When there is an unequal conformation of all the organs destined to their several functions, with respect to length and thickness.

17th. When the little body of the child, if percei-

ved soon after delivery, is not found warm to the feeling.

18th. When the blood flows from the mother in a superabundant quantity, both before and after delivery.

19th. When the mother, during her pregnant state, has been excited to a high degree of anger, or impressed with extraordinary fears.

20th. When she has suffered a great injury during that state, especially in the abdomen.

21st. When at the time of delivery a strong mephitic smell may be perceived to issue from the external parts of generation.

22d. When there is a subsidence of the sutures upon the top of the head in the child, without any marks of violent depression.

23d. When the meconium, a kind of fæces, flows from the child at the time of delivery.

Swimming
of lungs
examined.

A great handle hath been made of the swimming, or subsidence of the lungs. When other circumstances are taken into consideration, it may be a corroborating proof, but can by no means be absolute of itself; for the lungs may swim from putrefaction, where a child is born dead, or from inflation by a blow-pipe, or other means. On the other hand, the lungs may subside in a child that is born alive: for a child may live, or have its circulation perfect, some time before it begins to breathe.

Signs of violence to procure death.

III. We are to consider how to form a judgment, concerning any violence that may have been used to procure the death of a child, and this we derive from the following circumstances.

1st. When at the time of inspection, marks of certain injuries, such as might have been inflicted upon an adult, as fractures or wounds, are evident to the senses. From wounds.

2d. When there are evident marks of suffocation, or strangulation, such as a remarkable compression of the *thorax* or chest; the *aspera arteria*, or wind pipe, being filled with serum or mucus; a redness or lividity of the countenance; the tongue swelling and prominent; a red or livid circular line about the neck; the cavities of the mouth and nose full of extraneous matter; a falling in of the flesh about the *scrobiculum cordis*, or pit of the stomach; the lungs livid, filled with blood, and heavier than usual; the vapours of sulphur burnt extending to the lungs; the cavities of the heart, as the right auricle and ventricle, being filled and expanded with blood; the jugular veins, and those about the head, being also distended with blood; a froth about the mouth; the bladder empty of urine; the child being found in places where he is liable to be destroyed by dirt or water, as in ditches or lakes; and lastly, its being oppressed soon after delivery by bed-cloaths, or other coverings which might deprive it of life. From suffocation.

3d. When there are evident marks of the luxation of the neck taken not only from the flaccidity of the head and neck but from depressions about the parts which are wide and deep. Luxation of neck.

4th. When there are evident marks of injuries to the skull as great depressions and blots near to the sutures which arise from extravasations of blood and serum, Injuries of the skull.

and appear either under the skin, or in the hemisphere of the brain or in its ventricles, or in the base of the skull.

Umbilical
cord not
tied..

5th. When the umbilical cord does not appear to have been tied, or is entirely torn off from the body. It should be observed, that the neglect of tying the umbilical cord is not always the immediate cause of death to an infant, but only when, from such defect, a mortal hæmorrhage arises, and which may be known,

When the
cause of
death.

1st. When the whole habit of the body is quite pallid.

2d. When the great blood vessels and the cavities of the brain, are empty of blood.

3d. When there is a rupture of the cord in delivery, and the mother has suffered much hæmorrhage both before and after that event.

Circum-
stances on
inspection.

IV. It is necessary, perhaps, in many cases where a suspicion of murder is great, but the facts are not so evident, to exercise the judgment as well as the observation of the person employed to give a deposition. And here are some rules necessary to be observed to execute his intention in a masterly, judicious, and accurate manner. In the first place, he should consider, whether the body be in a state of putrefaction or not, and whether that putrefaction is in such a degree as to preclude all observation. If that be not the case, perhaps an examination may be made upon the bones of the head or other parts, so far as to ascertain,

Putrefac-
tion.

1st. Whether the fœtus be of mature growth and this may be known from the size as well as the conformation of them.

2d. Whether such violence have been used as to injure these parts, as by fractures, &c.

If a degree of putrefaction has not taken place, so far as to preclude our observation, the rules may be divided into those that relate to the inspection, and those that relate to the dissection of the body.

When a proper inspection is made we should examine,

1st. Whether the clothes in which the child is wrapped up be tinged with blood, or whether there be any blood upon the external surface of the skin. Clothes.

2d. Of what sex the child is, and whether it be come to mature growth. Sex and growth.

3d. The whole superficies of the body is to be examined from head to foot, to see whether there are any *ecchymoses*, or stagnations of blood; livid spots, or blots of various colours; whether the skin itself be grown livid with or without any signs of violence or other injuries, such as punctures in the head or neck, luxations, and subsidence of the sutures, with or without any violent depression. Superficies of the body.

4th. The heat of the face, in particular, and of the whole body, are to be attended to. And here we must guard against deception, for a dead fœtus may partake in some measure of the heat of the mother; so that if a dead fœtus were to be examined immediately after delivery, and a child born alive, some little time after death, they might both enjoy the same degree of heat. Other circumstances then here must be taken into the account. Heat of the child.

Cavities. 5th. The cavities of the mouth and nose are to be examined, to see whether any foreign matter is deposited in them. This cannot be, unless the child had enjoyed life so far as to open these passages. We should observe likewise, whether it has grasped any thing in its hands, as this is a certain proof of life.

Umbilical cord. 6th. We should examine the umbilical cord, whether it adhere to the placenta, if it be tied, or is broken or cut off, and what is its colour, and what its length.

Placenta. 7th. The *placenta*, or after-birth, likewise should be examined, to see whether it adhere to the umbilical cord; whether it be dry or moist, and how far it may have become schirrous.

Appearances on dissection. We are next to consider, what is to be done upon a dissection of the body, and this ought never to be omitted: and here the following rules should be observed.

Principal cavities to be opened 1st. All the three principal cavities of the body, the head, the *thorax* or chest, and the *abdomen* or belly, should be opened, to discover any injuries that may have happened to the substances contained in them, and the great vessels which run through them.

Lungs examined. 2d. The lungs should be properly examined, and every enquiry made into their colour, connection, density, substance, and specific gravity; and whether they may not be indurated in some places, and how far they exhibit signs of putrefaction.

Wind-pipe 3d. The *aspera arteria*, or wind-pipe, should be cut through, to discover how far it is filled with mu-

cus or serum. The great vessels, and the cavities of the heart likewise, should be opened, not only to observe how far they are full or empty of blood, but that the colour and consistence of that fluid may be ascertained. Having made these observations, the lungs, with the heart, are to be cut out of the body. After this the heart is to be separated from them, and the vessels tied: they are then to be thrown into a large bason of moderately warm water, and it is to be observed how far they sink or swim in it. After this, each tube of the lungs is to be examined separately, and the same observations to be made upon it.

4th. All the other viscera, but particularly those of the abdomen, are to be examined, but the great intestines especially, to see whether they are full of meconium, and the bladder if it be exhausted of urine. Viscera of abdomen.

We cannot help lamenting here, that although so much is required, so little is generally done in these cases; and that an innocent life is often sacrificed to hurry, to negligence, or ignorance; whilst a wretch who is devoid of shame, escapes from punishment, for want of judgment, accuracy, and attention. And it is to be hoped that this little treatise will meet the attention of judges and lawyers in this particular circumstance, which so often comes before them, to the shame and scandal of humanity; and that they will be enabled to correct the errors of coroners, or ignorant surgeons, who may have been misled in the depositions they give in.

Abortions.

The next thing to be considered before we finish this chapter, is with respect to abortions, or the destruction of those unborn embryos which were never brought into the world: and indeed as such beings might live, and become of use to mankind, and as they may be supposed from the time indeed of conception, to be living animated beings, there is no doubt but the destruction of them ought to be considered as a grievous crime. It is necessary then, that we enquire whether any medicines can be given, or other means used, absolutely to procure this effect; and indeed it is evident, I believe, from experience, that such things cannot act as efficient causes, without the aid of those predisposing causes, or natural habits of the body, which are necessary to concur with them. As attempts of this kind, however, should not be passed off with impunity, and as the life of the mother, as well as the child, is endangered by such exhibitions, if advised by any other, they should be considered as highly culpable, and for this reason should be made known.

No medicine can procure it.

Methods generally used.

The common methods made use of are the stronger vomits and purges, venæsection to a great degree, all that class of medicines called emmenagogues, and those which have a tendency to promote salivation. External methods are, irritations of the mouth of the womb, strong passions of the mind, painful disorders, fevers, &c. The predisposing causes must be, great fullness of the blood, irritability of the womb, a defect in the nutriment of the fœtus, a womb that will

not suffer itself to be distended beyond a certain degree, and a morbid disposition of the placenta.

It is to be lamented here too, that whilst this crime, which is practised generally by the most abandoned escapes unpunished, a poor deluded creature, in the case of infant murder, whose shame highly extenuates her guilt, should suffer death, where nature had acted so forcibly as almost to overcome her fatal resolutions and had taken away all power to put in practice the subtle contrivances of art.

CHAPTER VI.

ON HOMICIDE.

Natural
cause.

WHERE death is occasioned in any other manner than by disease, it is called natural, where it arises from some accident, which shall immediately cause a dissolution of our powers; or homicide where it is effected by the violent hand of another. In such a case, the law justly retaliates upon the offender, where it is committed from anger and malice, and is not, as in the case of war, protected by the sovereign influence of princes.

Criminal
homicide.

Officers to
enquire.

Where it comes under the cognizance of a court of judicature the greatest circumspection and attention are required, and the laws of all countries, have appointed proper officers previous to any trial, and as soon as possible after the murder, to enquire into the causes and nature of it, how it was committed, and what appearances present themselves upon inspection.

Directions
how to ex-
amine.

In the examination which is made, (before a decision be pronounced) the following directions are necessary to be observed.

I. The examination of the dead body should be as soon as possible after death, in the day time, at a proper place, where a dissection, if necessary, (and it is almost always necessary) may be performed, and not according to vulgar custom, where it is found, let it be ever so improper, and likewise by proper instruments, such as are generally used by surgeons in their dissections, and not by coarse and rude knives and scissors, which may mangle and tear the body, but cannot ascertain the cause of its death.

When to be made and where.

II. Before a dissection be proposed, a very accurate inspection should be made upon the sound body, in order to discover how far the death was occasioned by suffocation from mineral vapours, the fermentation of new liquor, the burning of charcoal, or the electric shock of lightning. In such cases, except the last, and then they do not seem to be the cause of the death, no marks are to be found.

Accurate inspection of sound body.

III. Upon a further inspection, it is to be examined 1st. into any deviations from the natural state of the external superficies of the body, as whether there are any spots which are derived from the blood's escaping into vessels not fitted to convey it; ecchymoses, which are stagnations arising under the skin, or pericranium of the head; or any other spots in the external surface; and of these we are to examine the situation, magnitude, figure, and number. We must examine likewise, under this head, the nature of any tumours which may appear and whether they are owing to violence, or any other cause: their size and figure should also be described. And lastly, we should enquire into the state

Spots on the body.

Tumours.

Putrefaction. of putrefaction of the body, which is known by the following particulars. 1st. Bladders filled with a yellow or brownish liquor. 2d. The external cuticle separated from the true skin. 3d. A lividity and blackness of the skin. 4th. A fœtor, or disagreeable smell of the whole body. 5th. A considerable swelling of the carcase. 6th. A particular lividity and blackness in the scrotum of male subjects. 7th. A blackness of the nails.

Wounds, &c. 2d. Into any wounds which are conspicuous, and remark whether they be over the whole body, or confined to a particular part; and here no probe or other instrument should be inserted, which may enlarge them, and alter their nature.

Blood or other humour flowing from carcase. 3d. Whether from the carcase in general, or from any wound or aperture, as the mouth, anus, &c. there be a flowing of blood, urine, or meconium.

Habit of body. 4th. Into the habit of the body, whether it be fat or lean, or swelled from any cause.

Dissection. IV. The directions to be attended under a dissection are the following.

Integuments. 1st. The integuments of the body, and especially of those places which require examination, where any wounds present, are to be dissected away, and the muscles are to be cut through, in order to open a way to the parts where injury is supposed to be done.

Cavities. 2d. All the chief cavities of the body, as the head, the chest, and the belly are to be opened.

Where injury received. 3d. That cavity is to be penetrated first where the injury is supposed to reside.

4th. The parts circumjacent to a wound are not to be dissected before the progress of the injury is traced to its utmost extent. Parts circumjacent.

5th. Any bowel contained in the cavity, is to be examined according to its situation, connections, constitution, and any wounds which it may have received, in their length, breadth and depth. Bowels..

6th. We should enquire if the bowel opened contain any foreign bodies, either fluid or solid: if the former, their nature and quantity is to be determined; if the latter, their quality, number, quantity, figure, and situation. Foreign bodies.

7th. All the great blood vessels passing through a cavity, are to be examined whether they be entire or no, and whether they contain blood or not. Blood vessels.

8th. The great nerves likewise, as the *medulla spinalis*, or spinal marrow, &c. should undergo an examination, and the thoracic duct and receptacle of the chyle, vessels which carry the nutriment from the stomach, and from the external surface into the mass of blood. Nerves, &c.

9th. Before the head be opened, it should be discovered whether there are any wounds in the skull by fracture, fissure, intropression, &c. and of such the situation, size, depth, number, and figure, should be marked. Head opened..

10th. When the head is opened, the skull should be carefully taken off with a saw. skull.

11th. When the brain is examined, regard must be had to its substance, to its vessels, whether they be full or empty of blood; to the sinusses of the dura mat. Brain.

er, those large receptacles of blood which lie under the skull; to the ventricles or cavities, to see whether any fluid be contained in them, and of what nature, and in what quantity; to the base of the skull, to discover if any foreign body lies upon it; and lastly, to the thickness of the bones, whether it be ordinary or extraordinary.

Chest.

12th. When the chest is opened, the sternum is to be separated from the ribs with great care, lest the arteries or veins lying near it, or in the cavity, be injured.

Ribs.

13th. If a wound should be made in the chest, and which penetrates either side, then we should not only determine the ribs between which the wound is made, but from whence we reckon.

Heart.

14th. When the heart is examined we should take notice, whether polypous concretions occur in its cavities, or in the greater vessels.

Rupture of
bowels.

15th. When a rupture of any of the bowels is discovered upon dissection, we should carefully examine whether it be recent or whether it be gangrenous, or have the signs of putrefaction.

Contents
of bowels
of abdo-
men.

16th. When the bowels of the lower belly, which are large cavities, are submitted to examination, we should enquire with the utmost care into their contents, and this not only by simple inspection, but by the fire and chemical mixtures.

Other cir-
cumstan-
ces.

There are besides these, some other circumstances to be attended to, as the constitution of the dead person, the instrument by which his death was occasioned, the symptoms under which he laboured, the means

used to restore him, the time when assistance was called to him, his situation when wounded, his diet before and after, and lastly, whether he was affected with drunkenness.

The different kinds of murder, or the different means by which it is committed, may be reduced to poisons, wounds, bruises, drowning and strangulation. The two first seem to be the most common; the third is often rather a remote than a proximate cause, and the two others are chiefly discovered by the facts, rather than by any peculiar marks they leave on the body. But first of poisons.

A poison may be defined any substance which, applied to the human body internally, is injurious to its preservation, or procures its dissolution by its own proper qualities. The ways by which poisons get into the body, are by the mouth, nose, lungs, and sometimes the external surface of the skin, and these modes of action may be explained in the following manner.

Health supposes a natural state or constitution of the fluids and solids of the animal body. All poisons then, must act in destroying this natural constitution of parts, and changing it into a preternatural one. There are various ways by which this is done; the principal are the following.

1st. By acrid things, which constrict and erode the solids, or sometimes coagulate, sometimes resolve the fluids.

2d. When they possess a power of stupefying or destroying the powers of sensation and motion in the

Different kinds of murder.

Of poisons defined.

Ways by which they act.

Mode of action.

By acrids.

Stupefiers.

nerves, which are the great agents of the animal machine.

Figure sharp.

3d. When they possess a sharp and acute figure, which tears and lancinates the tender parts of the stomach and bowels, mechanically.

Suffocation.

4th. When they induce a powerful suffocation.

Tenacity.

5th. When they act not only from acrimony, but from a power of thickening the blood at the same time.

Drying.

6th. When they have the power of thickening and of drying also the humours.

Unknown power.

7th. When they act by some unknown power, which is not yet discovered.

It would be useless, nay perhaps injurious to society, to enumerate all the poisons which belong to the different heads. It is dangerous to entrust such materials in the hands of mankind in general: we hope therefore we shall be excused if we mention only the principle ones, according to the foregoing arrangement. They are all taken from the animal, vegetable, and mineral kingdoms.

Acrids what.

The first class or acrids include acids, alcalies; among the last of which may be included the effects of the putrefactive process, as being exposed to its influence.

Those poisons of an acrid nature which have a mixed quality, are the metallic salts, or some of the semi-metals themselves, as arsenic, &c. and some vegetables which are of a highly drastic nature, and which, used in small quantities, may produce useful evacuations in cases of disease.

2d. The poisons which have a stupefying quality <sup>Stupefy-
ers:</sup> are of the vegetable kind, as the cicuta, lauro cerasus, &c.

3d. Those which act mechanically by the sharp <sup>Mechanic
powers.</sup> points and edges with which they are endued, are the powder of glass, diamonds, &c.

4th. Those which have a suffocating power, are <sup>Suffoca-
tions.</sup> the vapours of new and fermenting liquors, the smoke of charcoal and of sulphur, the air of close and damp places, &c.

5th. Those which have a viscidty joined with ac- <sup>Viscid
acrimony.</sup> rimony, are generally vegetables, such as Cicuta major, solanum, mushrooms, &c.

6th. Those which have a secret quality not easi- <sup>Unknown
qualities.</sup> ly discovered, are the various tribes of animals which live around us, such as spiders, vipers, &c.

The effects which poisons produce upon the body <sup>How poi-
sons affect
the body.</sup> vary, according to the nature of their qualities, the place which they affect, and the subjects to whom they are applied, according to age, temperament, habit of body, &c. Thus the aconite affects ^{Aconite.} the lips, mouth, forehead, tongue and stomach, by making them to swell, and causes anxieties, vertigoes, faintings, and convulsions.

The cicuta occasions enormous vomitings hiccups, ^{Cicuta:} heat of the stomach, swelling of the belly, delirium and convulsions.

The acid spirits, wherever they touch, cause ero- ^{Acids.} sions, most greivous pains, vomiting, and hiccup. Arsenic and cobalt* excite inflammations of the sto- <sup>Arsenic,
&c.</sup>

* Cobalt (i. e. the common ore of Cobalt) acts only from the arsenic by which it is mineralized.

mach, &c. the most acute pains, that in the mouth and jaws nausea or sickness, vomiting, spasmodic contractions of the chest, swelling of the belly, coldness of the extremities, cold sweats, convulsions, &c.

When a medical practitioner, therefore, is called to a person who is suspected to be poisoned, if he be alive he may judge from the following observations.

1st. From comparing the symptoms which present themselves with those which generally attend the taking of poisons mentioned above.

2d. From the sudden appearance of some symptoms, such as spasms and violent pains, great thirst, sickness, vomiting, fainting, cholick, the throwing up some foreign matter from the general contents of the stomach, and universal convulsions of all the muscles.

3d. From the health of the patient foregoing this attack, and his not having any connection with a person labouring under any contagious or epidemic disease.

4th. From the patient having committed no errors in diet, &c.

5th. From an ungrateful odour and taste of what has been taken. There are few poisons but what are attended with a very disagreeable smell and taste; hence a suspicion soon arises from this source, which if immediately taken notice of, the patient may soon receive the proper relief.

But if the person be dead, a very minute examination must be made, and the following particulars attended to.

How to judge in a living subject. From symptoms above.

From suddenness of some symptoms.

Previous health.

No errors in diet.

From odour and taste.

How to judge in a dead person.

1st. The external habit of the body is to be inspected with the greatest accuracy and attention, to discover From external habit. whether there be any livid spots upon the surface of the skin; whether there are any premature signs of putrefaction, and whether there be any swelling of the belly, or of the face; for experience evinces that these changes are soon induced by poisonous substances.

2d. The passages by which the poison has been conveyed into the body, are to be examined: these The passages. are the mouth, the throat or gullet, the stomach and the intestines; but chiefly the stomach, as the same Principally the stomach. effects will be produced in it as in the other parts. We must examine then first into its constitution, and then into its contents.

When we examine the constitution or form of the In its constitution. stomach, we must consider,

1st. Whether it be inflated or corrugated in an extraordinary manner.

2nd. Whether it be inflamed or in a state of gangrene or mortification.

3d. Whether it exhibits upon its external surface supernatural spots, either of a red colour, or black or livid.

4th. Whether it be perforated into holes either one or many.

5th. Whether its veins be tinged with blood more than usual.

6th. Whether it be eroded, and its inner coat be stripped off and bloody, and swim amongst the other contents.

7th. Whether there be any eschar in its substance, of a black or yellowish colour.

All these marks afford very strong suspicions of poisons, especially of those which are acute and acrid.

Contents
of the sto-
mach.

The next observations are to be made upon the contents of the stomach, previous to which two circumstances must be attended to.

1st. All the contents of the stomach are to be thrown into a vessel prepared for that purpose.

2d. The surface of the stomach is to be inspected more carefully, to discover, if possible, whether particles of the poison may not stick to it, which are to be collected.

Solid.

The contents of the stomach are to be considered as more or less fluid; if they are not entirely so, but consist of many solid substances, then a portion of them is to be dried and put into an iron vessel lined with tin, and being previously weighed, the following experiments are to be made upon it*.

To be tri-
ed by bur-
ning.

1st. It is to be thrown upon burning coals, which if it produces a vapour of a white colour, and an odour like that of garlic is perceived, it may be suspected with reason, that an arsenical matter was mixed with it. But in order to clear up this point to greater satisfaction.

* I have altered the original text of the Author on the subject of poisons; because the chemical directions therein given, were more apt to mislead than to convey useful information. For the methods of detecting the poisons of arsenic and copper, I refer to my dissertation on the subject inserted in this volume.

2d. Another portion of the dried mass is to be given ^{By other animals.} to other animals, such as fowls, dogs, &c. which if it causes their death, or violent vomiting, it is a proof interaliæ, that poison made a part of its contents.

3d. [Another portion of this dried mass is to be mixed with a small quantity of very fine charcoal or lamp black, and a drop or two of oil: then dried, and put in the bottom of a glass tube closed at one end, and slightly stopt at the other. Expose the closed end to a red heat, and if shining, blackish metallic particles sublime, they are probably arsenic. If these black particles, thrown on a hot coal evaporate with a garlic smell, and whiten hot copper held over them, they are arsenic. But see further on this subject.

T. C.]

The remainder of the dried contents, if poison be ^{Remainder weighed.} found upon experiment, must be nicely and accurately weighed. This is to discover, whether the proportionate quantity would be sufficient to produce the effect. But in general, where arsenic has been administered, so small a quantity is sufficient to produce the most dreadful influence, that it will be nearly satisfactory, if any of it be found upon a chemical examination.

The fluid parts of the stomach are to be examined, ^{Fluid parts examined.} as to their colour, taste, and smell.

2d. Some portion of the poison found may be ^{By chemical analysis} sent to a chemical laboratory, to examine more particularly its nature.

These observations, it should be remarked, however, relate more particularly to poisons which produce

their effect more immediately, than to those which lie a long time first, in the stomach. But we may, from the injuries done to the stomach itself, determine likewise in some measure concerning even those slowly acting poisons. The remains of inflammation, gangrene, perforations, &c. will continue for a long time, and if the patient should die of poison at ever so great a distance, whilst the cause subsists some effect will evidently be perceived, or some change from a natural state : [but these of themselves are dubious marks.

T. C.]

Wounds defined.

2d. Of Wounds. Under wounds may be comprehended every disorder which arises from some external violence, offered to the human body. To this head, therefore, may belong contusions, luxations, fractures, and wounds, more properly so called, being a division of the muscular parts of the body. The first division of wounds is into mortal, and the contrary. Every wound is of such a nature, that death is absolutely the consequence of it or not. In the latter case it may be called mortal by accident. This also we may divide into two kinds or orders. That wound which is so inflicted that it may be relieved by the means cognizable by art, is of the first order. That where it happens that the death which is incurred, is owing not to the wound, but to other causes, then the wound is said to be of the second order of such as are called mortal by accident.

Divison.

Mortal what.

Mortal by accident.

From what hath been advanced, the following positions may be deduced.

Positions.

1st. Every wound absolutely mortal, will admit of

no relief, but will certainly destroy, either by a sudden or lingering death.

2d. Death is always the inseparable effect of a wound absolutely mortal.

3d. A wound absolutely mortal is always the *sole* cause of death to the injured person.

4th. The consequences here avail nothing: the wounded person, after the wound is inflicted, is to all intents and purposes a dead man; the injury then is absolutely mortal.

5th. Wounds are by accident mortal, when the cause of death arises partly from the wound, and partly from other concurring causes.

These distinctions are necessary, though not always attended to; for it may so happen, where men judge alone from consequences, that a person may be punished for a death occasioned by a wound which was not absolutely mortal. It is highly important that in a deposition for murder, such distinctions should be made of these kinds of wounds, as to place them in their proper light. In order to do this more effectually, it is necessary to make the following divisions.

1st. To consider those kinds of wounds, which are absolutely mortal, or mortal by accident. 2d. In what parts of the body such wounds are most likely to be inflicted. 3d. Some circumstances which may occur to distinguish such wounds more accurately.

I. It appears then, that because a mortal wound cannot be cured by any art, that every wound which entirely takes off the influx of the blood into the heart, from the vein, and its egress from the heart into

Reasons
for such
distinc-
tions.

Division of
rules.

What kind
of wounds
mortal.

the arteries, or which entirely destroys the powers of circulation, and the action of the heart, must be absolutely mortal. From the elements of physiology it appears, that the following circumstances are necessary to promote the action of the heart.

Actions of the heart promoted by.

Soundness of walls.

1st. The soundness of the sides of the cavities of the heart, so as to be able not only to contain the blood, but to push it forward into the system. The strength required here is amazingly great.

Action of the brain.

2d. A free action of the brain and nerves going to the heart, called the cardiac nerves.

Coronary arteries.

3d. The motion of the blood through the coronary arteries which surround the heart.

Lungs.

4th. A free motion of the blood through the lungs.

Proper return.

5th. A proper return of blood through the veins.

Aliment.

6th. A renewal by the aliment of nutriment to restore the expense which is incurred by the several secretions, &c. It appears then that all wounds are absolutely mortal.

Mortal in that order.

1st. Which injure the cavities of the heart, so that they cannot contain the blood.

2d. Which take away the free action of the brain and nerves going to the heart, so that neither sense nor motion can be promoted in that organ so essential to life.

3d. Which destroy respiration, for then the blood cannot be carried through the lungs.

4th. Which stop the motion of the blood through the coronary arteries.

5th. Which prevent its return through the veins:

6th. Which prevent the use of nutriment, and consequently the accession of chyle.

It appears, then, that the subject of wounds absolutely mortal are those parts whose soundness cannot be taken away, and life continue; and that many of those wounds which happen in internal parts, to which the medical aid cannot reach, are to be considered, as absolutely mortal.

When a wound is mortal by accident, death is either to be attributed to it in part as a concurring circumstance, or not at all: as in such cases as the following.

1st. Where death is occasioned by wounds being left to themselves, as for instance, wounds of the head which may be cured by the use of the trepan; those of the greater blood vessels, where access may be acquired; those of the viscera, where the hand may be applied, and medicines may be administered; those which induce death by evacuations into cavities, which might be prevented, or from which they may easily be discharged.

2d. Where other causes may be the occasion of death, as the particular constitution, or habit of the wounded person, as well as his neglect and want of prudence, the fault of the medical practitioner, the blunders and carelessness of by-standers, or some previous disorders which may have prevailed.

II. We are now to consider the second general division, or those wounds of the different parts of the body which are to be accounted mortal absolutely or not; and here we shall treat of them in the following

order: 1st. Wounds of the head and neck. 2d. Wounds of the chest. 3d. Wounds of the abdomen or belly. 4th. Wounds of the extremities.

Of the
head.

I. Of wounds of the head.—These are external or internal, which may be again distinguished according to any injury done to the brain, &c. or not.

External.

1st. External wounds of the head, whether they are wounds of the integuments, or of the pericranium, or of the bones, composing the skull, or of the face, are not absolutely mortal.

Internal.

2d. Internal wounds of the head, unaccompanied with injuries of the brain, &c. are not to be accounted absolutely mortal.

Where
brain &c.
affected:

3d. Those wounds of the inner part of the head, where the brain, &c. likewise is injured, are to be accounted absolutely mortal, or not, according to the following distinctions.

1st. Wounds of the dura mater, where there is no sinus or branch of the greater artery running across it that is injured, are not absolutely mortal.

2d. Wounds of the dura mater in its sinus, and the greater artery, are to be accounted absolutely mortal.

3d. All wounds of the contents of the skull, which are attended with great extravasations of humours which cannot be evacuated: as in the ventricles of the brain, and the base of the skull, are to be accounted absolutely mortal; such are, what are made at the bottom of the skull in the bones of the temples, the ethmoid bones, and the inferior orbits of the eyes.

4th. Slight wounds of the brain itself, or of the superficial part of the cerebellum, are not absolutely mortal.

5th. All wounds of the cerebellum, which are deep, and of the medulla oblongata are accounted absolutely mortal.

6th. All injuries of the origin of the spinal marrow and all deep wounds through its whole length, may be pronounced absolutely mortal.

With regard to wounds of the neck, we may make the following observations. Wounds of the neck.

1st. Wounds of the internal jugular veins are absolutely mortal; those of the external, only so by accident. Internal jugular veins.

2d. Wounds of the carotid and vertebral arteries, may be pronounced absolutely mortal. Carotid arteries.

3d. Wounds of the internal maxillary artery, and the sublingual artery, belong to those esteemed absolutely mortal, if they cannot be healed. Internal maxillary.

4th. Wounds of the branches of the carotid artery, which can be tied or compressed so as to stop the blood, may be accounted mortal by accident. Br nehes of carotid.

5th. Wounds of the intercostal nerves, and of the parvagus, and of the phrenic nerves, which run through the neck, induce absolute death. Intercostal nerves &c.

6th. Wounds of that plexus of nerves which reaches from the spinal marrow to the arm, are the causes of death. From spinal marrow to arm.

7th. All luxation of the first and second vertebræ bring absolute death. Luxations.

Oesophagus.

8th. Small wounds of the œsophagus, or gullet, are only mortal by accident; but if the gullet be cut through they are amongst those which are accounted absolutely mortal.

Wind-pipe.

9th. In the same manner slight wounds of the *aspera arteria*, or wind-pipe, belong to those which are mortal by accident; but if it be cut through, they are always mortal.

Larynx.

10th. All violent strokes upon the *larynx*, or cartilaginous muscles, on the top of the wind-pipe, so as to destroy their tone and power of action, will speedily induce the death of the sufferer.

Wounds of chest.

II. Wounds of the chest are of two kinds as they are made in the cavity, or in the parts surrounding it. Of the former,

Heart.

1st. All wounds of the heart which penetrate into its cavities, i. e. into its ventricles, or auricles, are absolutely mortal. The same may be said,

Coronary arteries.

2d. Of all wounds of the coronary arteries, which surround the heart, and all the great arteries and veins which carry blood from the heart, and bring it back again.

Intercostal arteries.

3d. Wounds of the intercostal arteries, or small vessels which pass between the ribs, are only mortal by accident.

Gullet.

4th. Wounds of that part of the gullet which lies in the chest, are absolutely mortal. The same may be said,

Wind-Pipe.

5th. Of wounds of the wind-pipe in the same situation.

6th. All wounds of the pericardium, or bag containing the heart, are not absolutely mortal. Pericardium.

7th. Wounds of the lungs which pierce the great blood vessels, are absolutely mortal; but those which penetrate the smaller vessels, are only accidentally so. Lungs.

8th. Wounds of the air vessels of any magnitude, are absolutely mortal. Bronchia.

9th. Superficial wounds of the muscular part of the diaphragm, or midriff, are mortal only by accident; but those which pierce the tendinous are absolutely so. Dia-phragm.

10th. Injuries to the thoracic duct, which convey the chyle, are mortal absolutely, as are, Thoracic duct.

11th. Those of the cardiac nerves, &c. Cardiac nerves.

II. Wounds made upon the parts surrounding, the chest, are to be judged by the following decisions, Surrounding the chest.

1st. All external wounds of the chest are not absolutely mortal.

2d. A simple luxation or fracture of the ribs, is not absolutely mortal.

3d. Considerable bruises, and injuries of the walls of the chest, with dilacerations of the intercostal arteries, are absolutely mortal.

4th. A wound of the chest, where one side only is penetrated in a certain place, is mortal by accident.

5th. Every wound which is of any size, that pierces both sides of the cavity of the chest, is absolutely mortal.

As the chest is the seat of the great fountain of blood, it is no wonder that any injuries committed there should be mortal, and even in those

cases where the exceptions are made, the hæmorrhage of itself may cause death.

Wounds
of abdo-
men.

III. Wounds of the abdomen, or lower belly, are judged by the following rules.

1st. Every wound of the abdomen which does not penetrate into its cavity, whether it be a wound of the integuments, or of the muscles, or of the *linea alba*, as is called, or of the navel, or of the abdominal ring, are not absolutely mortal, nor are they such when they do penetrate the cavity, when none of the contents are injured.

Omentum.

2d. Wounds of the *omentum*, or caul, where its blood-vessels are hurt, so that the hæmorrhage cannot be restrained by any art, are absolutely mortal, otherwise they are mortal only by accident.

Stomach.

3d. Wounds of the stomach are absolutely mortal, when many of the nerves are at the same time injured, when some of the principal blood-vessels are cut through, or they are made in such a place, that the food cannot arrive at the hollow part of it, but is thrown into the cavity of the abdomen. The same may be observed where the bottom or curvature of it is wounded, or it is pushed to one side.

Small in-
testines.

4th. A wound in the small intestines, so as to separate them from the stomach, is absolutely mortal.

Great in-
testines.

5th. Wounds of the great, as well as small intestines, at some distance from the stomach, which do not divide the tube, are not absolutely mortal.

Liver if
great.

6th. Wounds of the liver, which are deep and broad, and are supposed to be connected with injuries done to the large vessels passing through it, are

absolutely mortal; in like manner are any wounds of the duct of the liver, of the cystic duct, of the gall-bladder, of the *ductus chelodochus*, of the vena portarum, or of the artery of the liver.

7th. Slight wounds of the liver, which do not occasion an extravasation of the humours, are mortal only by accident. Small wounds of liver.

8th. A rupture of the liver is always absolutely mortal. Rupture of liver.

9th. Deep and broad wounds of the spleen are absolutely mortal, as well as a rupture of the spleen, but slight wounds are only mortal by accident. Spleen.

10th. All wounds of the receptacle of the chyle are absolutely mortal; the same may be pronounced of Receptacle of chyle.

11th. All the great vessels, arteries, and veins, and the nerves which run through the abdomen. Great vessels.

12th. Wounds of the *pancreas*, or milt, as the trunks of many large vessels pass through it, are absolutely mortal. The same may be said, Pancreas.

13th. Of wounds of the mesentery, or external covering of the bowels, for the same reasons, upon account of the vessels. Mesentery

14th. Wounds of the kidney, which reach to the bosom of it, and cut off the ureters, are absolutely mortal; slighter ones are only so by accident. Kidneys.

15th. Wounds of the urinary bladder, where the blood cannot be stopped, are absolutely mortal, and no excuse can be made here from wounds being inflicted by surgical operations. Such being immediately under the eye of the operator, can be easily restrained, so as to have no ill effect. Bladder.

Genitals in men. 16th. Wounds of the external parts of generation in men, in which may be included contusions of the testicles, are not absolutely mortal.

Womb. 17th. Wounds of the womb are absolutely mortal.

Extremities. IV. Wounds of the extremities in general are not absolutely mortal, but sometimes they are, as when they are made upon the trunks of the largest vessels, in which case such an hæmorrhage may arise, as no art can restrain, or from the vital powers being weakened, a most powerful and fatal gangrene or mortification may be occasioned, and so as to elude the force of medicines.

Further rules on wounds. III. We come now to the last division of rules, concerning wounds, to examine some circumstances by which the mortality of their nature may be more exactly ascertained. These relate,

From the wounded person. 1st. To the wounded person himself, in whom we should attend to his age, his constitution of body, his exemption from former injuries, or his subjection to disease, the sex, and if a woman, whether she be pregnant or not; the state of his mind, and how far his imagination might increase the efficacy of the wound; and lastly, whether he was at the time inebriated with liquor. All these circumstances aggravate the mortality of wounds.

Symptoms 2d. To the symptoms which occur either immediately upon a persons being wounded, or which appear some time after; the symptoms besides these may be of three kinds.

1st. Those which acknowledge the wound to be their sole cause.

2d. Which depend upon the wound partly as their cause.

3d. Which do not acknowledge the wound to be their cause at all. Now in reviewing the symptoms, it will appear that the first alone are objects of attention.

3d. To the instrument with which the injury was effected, in which its figure, its size, its power of acting, are to be taken into consideration. <sup>Instru-
ment.</sup>

4th. To the time when death may occur after the wound is given. ^{Time.}

5th. To the methods made use of to effect a cure. ^{Cure.}

6th. To many occurrences which may arise from the circumstances of time, and any other accidents, which might render a wound more dangerous, such as cold air, or a desert place, where no one might be ready to assist. ^{Exposure.}

CHAPTER VII.

OF IDIOTISM AND INSANITY.

Objects of
civil pow-
er.

When the ideas of the mind are distracted, and thought and reason are confused and destroyed; it is common for the civil power, not only to take cognizance of the unhappy persons subject to such misfortunes, but to deprive them of their estates for a time, and put them under proper confinement. As the consequences are so dreadful, it is necessary then that the decision be established upon the firmest and most satisfactory proof.

How dis-
tinguished.

Idiotism and insanity, though punished in the same manner, seem to vary from each other. It may be necessary then to specify the proper distinctions of each.

Idiotism
natural.

I. Idiotism is 1st, either born with the subject of it, or appears as soon as the reasoning faculties should begin to expand.

Depends
on defects
in memory
and judg-
ment.

2d. It is established upon great defects of the memory, and much greater of the judgment, though this is not much attended to.

3d. Idiots, are in general prone to mischief, or to actions over which reason seems to have very little command. Prone to mischief.

4th. Sometimes they have not a proper command over the evacuations of fæces and urine, and drive at the mouth. In sensible to evacuations.

5th. They have generally strong and hearty constitutions. Health.

6th. They have a peculiar aspect, which describes a vacancy of thought and inattention to any engagement. Aspect peculiar.

7th. They have little use of speech, and articulate very incoherently. Inarticulation.

II. Insane persons are either furious or melancholic; both of which indicate great imbecility of the mental faculties; and which are derived from hereditary constitutions, attention of mind, violent passions, the terrors of a false religion, immoderate use of venery, poisons of the narcotic kind, some preceding disorders, the suppression of evacuations, indigestible aliments, a sedentary life, &c. But they differ in the following particulars. Insanity cause of.

1st. The furiously insane are naturally of angry and violent dispositions, in the prime of youth, and of a plethoric constitution, and tense fibre. Furious signs of violent disposition.

2d. They lose all their natural delicacy of manners, and become furious, ungovernable, and are particularly affected by pride, anger, hatred, and revenge, and very often intemperate lust. Subject to passions.

3d. They refuse their food, and yet preserve their strength; they scarcely ever sleep, are continually Refusal of food.

shifting their ideas from one thing to another, bear the cold with incredible patience, and are not easily affected by medicines.

Peculiar
look.

4th. They have a peculiar look with their eyes, descriptive of violent anger mixed with a glariness like that of drunken persons, their eye-lids are constantly vibrating, and their hands, and sometimes the whole body, they keep in motion.

Melan-
cholic.

Melancholy persons are,

Phlegma-
tic.

1st. Naturally dull, slowly learning, and easily forgetting, and are sad and melancholy, of a phlegmatic temperament, and relaxed fibre.

Fearful,
&c.

2d. When the disorder seizes them they become abject, fearful, fond of solitude, prone to anger, changeable in their opinions and desires, but fixing their attention upon a single object.

Construc-
ted in
bowels,
&c.

3d. The belly is constipated, the urine is made in small quantities; the abdomen is distended with wind; a sharp acrid matter is discharged by vomiting; the pulse moves very slowly; the aliment is devoured with greediness; the imagination is perverted so, as that they are persuaded that they are made of glass, china, &c. and lastly, and worst of all, they are induced to put a period to their existence.

Aspect
dull.

4th. Their eyes have a dull, heavy, and stupid look; they seldom move, but continue in one posture a very long time.

CHAPTER VIII.

OF IMPOSTORS.

THERE are various causes which induce men to feign disorders to which the human body is subject, and with such fictions to impose often upon a court of judicature, or at least a civil magistrate. To this they are induced from fear, from bashfulness, or from lucre. Should they be submitted to a physician upon such an occasion, he can only judge from the symptoms of the disease, and determine by their presence and absence. But there are many cases where artful people, by a specious tale, and by feigning disorders where much is to be known from their own confession, may cause a good deal of difficulty to discover the truth. Let him then attend to the following circumstances.

1st. All the phænomena which evidently appear in the subject at the time of examination, together with such as may be related by the sick person, or the standers by, are to be carefully and maturely weighed.

Various causes of imposition.

Physician should consider the phænomena.

Take account of natural appearances. 2d. An account is to be taken of the urine, age, pulse, hereditary disposition, way of living, condition of the person, and the disorders to which he has been subject.

Confound the subject. 3d. The questions which are to be put to the sick person, or the by-standers are to be so framed as to confound them.

Frequently visited. 4th. The pretended sick person is to be visited frequently, and when he least expects it.

Enquire into causes. 5th. Enquiry is to be made whether such causes as generally produce the feigned disease have previously presented themselves.

Diseases feigned. There are many diseases which may be feigned, particularly by a person who has before suffered from them, and especially if they be devoid of fever, and depend upon his own relation; yet there are but a few which are generally objects of imposition. These are epilepsy, melancholy, foolishness, possession by evil spirits, and fascinations.

Epilepsy, I. A feigned epilepsy may be known from a real one,

1st. When the sick person does not fall to the ground very suddenly.

2d. When the face is not livid, nor the lips pale, nor is there any change made in the colour and real form of the face.

3d. When the patient is soon roused by sternutatories or burning coals applied to the hands.

4th. When the nails do not appear livid.

5th. When the pulse is not altered.

6th. When at the end of the paroxysm the patient does not fall into a profound sleep.

7th. When he does not complain of a dullness of sensation, forgetfulness, a swimming of the head, great weakness, and thirst.

II. A melancholy that is feigned may be known by the absence of those symptoms mentioned in the last chapter. Melancholy.

III. We may conclude that foolishness is fictitious, when the person at any time appears rational; for persons afflicted in this manner are not furious as madmen, nor thoughtful as the melancholy; but speak confusedly, neglect themselves, and sing and talk like children. Foolishness.

IV. Possessions by evil spirits, as they constitute no real disorder, can never be feigned; the pretences therefore of such persons, will not be detected by physicians. Possessions.

V. The same may be said of incantations, fascinations, &c. Fascinations.

CHAPTER IX.

ON THE MEANS OF PRESERVING THE PUBLIC HEALTH.

An object
of consi-
deration.

How best
executed.

THE general health of the public, which is of so much consequence, especially in large towns, calls loudly for the attention of the magistrate, who should exert every nerve to preserve and support it. This is best done by frequently consulting physicians of the first eminence, concerning the proper means to be embraced, and it would be highly useful if they were to be vested with proper authorities, and put in practice any scheme of this sort which they might think advantageous to the general service.

The health of the community seems in the best way of being preserved, when the following particulars are observed, and it is no small matter to see them regularly put in execution.

1st. When every thing which may tend to injure the public health is properly prevented or averted.

2d. When care is taken that the sick have every

assistance to remove the disease with which they are afflicted, or at least, to mitigate its rage.

3d. When contagious and epidemical disorders are guarded against, and the spread of them, when they do prevail, prevented.

I. The causes which are injurious to the health of the community may be averted,

By averting the causes of disease.

1st. By preserving the air, as much as possible, from the effects of putrefaction, which must be done by removing all kinds of putrid bodies, both animal and vegetable, for vegetables in this corrupt state are more offensive, or at least as much so, and consequently, equally pernicious with animals. The lay-stalls of butchers should always be situated so as to be easily washed and cleaned. Butchers likewise should be punished for keeping their meat till it be too stale for use, or vending unwholesome meat. It is not only improper upon account of the smell, but poor people, by reason of the reduced price, are induced to purchase it, and thus contribute to unwholesome diseases.

By purifying the air.

The water also of towns should be carried off, and not suffered to stagnate in the streets. It is generally putrid in itself, but much more so when it becomes a receptacle for all kinds of filth. Hence we see that most towns which are not accommodated with common sewers, are very unhealthy. The last thing to be considered under this head are the burying grounds, which should always be removed to some distance from a town.

By whole-
some pro-
visions. 2d. The next means for removing the causes of injuries to towns, &c. is, by taking care that the grain be not of an unwholesome and putrid nature; that the flesh of animals be not diseased; that the fruits be properly ripened; that the wine be not poisoned nor the beer foul and vapid; and that all vegetables of a deleterious quality, be not admitted to be sold.

By good
water. 3d. By taking care that the water which is drank be tolerably pure, or free from any mineral substances, which may be prejudicial to health. This is not always easily ascertained, and will require a chemical analysis.

By regula-
ting the
use of spi-
rits. 4th. By regulating the use of fermented liquors.

By quanti-
ty of food. 5th. By providing a sufficient quantity of wholesome food for the use of the poor.

Suppres-
sing stews. 6th. By suppressing the common stews, or at least regulating them in such a manner, as that the disorders now peculiar to such places, and the common effects of riot and drunkenness, be as much as possible prevented. In a moral light, no vice can be tolerated by the civil power; but in a physical view, we should certainly prevent many of the deleterious effects of the venereal disease, if not in time eradicate it, by having the brothels under the eye of the magistrate, who could appoint inspectors under a license, who should regularly make their report, and confine the subjects of it in some well regulated hospital. If any way then could be thought of, which should avoid the encouragement of vice and yet admit of such an inspection, it would no doubt be of very great benefit to society.

7th. By insane persons being properly confined and provided for. Confining the insane.

8th. By destroying mad animals, and when such are roving about, taking care that others are not suffered to go loose, but confining them in yards, or other places within walls, &c. I do not think it proper to tie them up, as by their uneasiness and watchfulness, they may bring on them the disorders we would wish to prevent. Destroying mad animals.

9th. By suppressing as much as possible all mountebanks and quacks, and other pretenders to the practice of physic. No one can tell how much they injure society, by violent medicines, the effects of which they do not see, they may introduce some fatal disease, and by inefficacious ones they prevent the effects of those which are proper. Suppressing quacks.

10th. By preventing apothecaries, midwives, &c. from practice, unless properly recommended, and after examination licensed. Preventing irregular practitioners.

11th. By taking care that foundling infants, or others who may be deserted by their parents, be taken care of, and educated at the public expense. Preserving foundlings.

12th. By preventing any persons from selling drugs, who are not bred to the business of an apothecary or druggist, or do not understand the nature of medicines. Regulating the sale of drugs.

13th. By regulating the shops of those who sell drugs, so that the more active medicines, such as vomits and purges, emmenagogues, and the mineral acid spirits, be not promiscuously arranged with the rest, but be kept in some private drawers, or in an inner And shops.

room, to which no one should have access but the master. At the same time, particular care should be taken of the labels, so that they make distinct marks, &c.

Promoting
consultations.

14th. That it be enjoined midwives and surgeons to call to their assistance the most able physicians, in cases of danger, and that for this purpose, physicians accommodate their fees to the abilities of the patient, so that all may receive the benefit of their advice.

Cæsarian
operation.

15th. By midwives preserving the live child by a dissection, should the mother unfortunately die during the pains of labour.

Prevent-
ing disea-
ses of cat-
tle.

16th. By guarding against the contagious disorders which often arise among the horned and other cattle.

Diseases
are remo-
ved.

II. The best care is taken that the diseases of the sick be as speedily as possible removed.

By provid-
ing proper
physicians.

1st. When physicians of great knowledge and the most liberal education are provided to order medicines, and illiterate and immoral men be not suffered to obtrude themselves on the public.

Public
hospitals.

2d. When public hospitals are established, and so conducted as to accommodate all the sick poor who may offer.

Surgeons
and apoth-
ecaries.

3d. When surgeons and apothecaries, and midwives who are skillful in this business, are constituted by the public to execute their part of the business, which they undertake with carefulness and assiduity.

Visiting
shops.

4th. When the apothecaries shops are occasionally visited by the physicians, to see that their drugs are of the best quality, and provided in sufficient

quantity for the exigencies of the sick : that their bottles and other vessels be preserved clean, and fit to contain the ingredients deposited in them : that poisonous remedies be properly labelled, and not promiscuously sold to any one who may ask for them : that the medicines be preserved in a proper place to preserve them from injury, and that the shopmen or apprentices be industrious, sober, and fitted for their business.

III. The next thing to be attended to is, by what means contagious and epidemic diseases are to be prevented and removed. These are of two kinds, what is called the plague, or any other disease of the same nature, though less deleterious. Contagious disorders remedied.

I. The plague is a disease of so alarming a nature, that every precaution should be taken by magistrates to prevent its access. Of the plague ; rules for regulating it.

The following seem to comprehend the principal regulations necessary to be observed.

1st. The purification of the air is to be studied, and every thing put in execution that can promote this end. By purification of air. Some have proposed, for this purpose, the explosion of great guns, the lighting up of fires, &c. These can only have effect in rarefying the air, as heat is found to contribute to promote this disease, as described by Doctor Mead. The church bells, for the same purpose, are frequently to be rung, and the greatest cleanliness in the streets, and all public places, is to be observed. Besides this, sulphur and pitch, &c. may be burnt in the open places, and vinegar may be evapo-

rated in the chambers and insides of houses, as well as the fumigation of juniper and other woods be kept up.

Forming
lines.

2d. Lines are to be formed which are not to be transgressed by the infected, nor by the healthy; at the same time, proper houses are to be allotted for those who are taken down in the disease, and others for the healthy part of the family, where the disorder prevails.

Commerce
forbidden.

3d. All commerce with countries where the disease is prevalent, is to be avoided; nay some punishment should be inflicted on those who transgress this rule. It is an object of too much consequence, to be neglected, the lives of so many thousands depending on it.

Vessels
not to en-
ter har-
bour.

4th. Vessels which come from such countries are to be driven from the harbour where they attempt to enter, and be obliged to unlade their goods, and properly ventilate them in some uninhabited island. I do not think the usual manner in which quarantines are performed by ships in harbour, are by any means adequate to the purpose. Were the plague really on board any such ships, forty or sixty days, no nor any time would be sufficient to prevent the disease, unless the goods were properly ventilated; bale goods being known to preserve the infection for many years: But besides this, it is impossible to keep the superior officers of a ship from leaving it, and flying to their domestic mansions, to repose themselves after a long and tedious voyage. The only remedy is, to appoint a place for unloading and ventilating.

5th. Physicians and surgeons, and ministers, are to be appropriated to visit the sick in the plague, and no others; lest the infection may be conveyed by them to sound persons. The same rule is to be observed with regard to midwives. Appropriating physicians, &c.

6th. Hospitals are to be provided for the poor who may be sick of this disease, but every connection between them and their friends should be prevented. Providing hospitals.

7th. The dead bodies are to be buried as soon as possible, and here a suspension should be made of the law against burying in any thing but woollen :* nay that should be forbidden, as it is a powerful retainer of infection. Linen here should be preferred. Burying the bodies.

8th. Every thing which is capable of retaining infection, as the cloaths of the deceased, and the furniture of the room should be buried. This is preferable to burning. Those things which retain infection the most, are all sorts of woollen cloths, silks, cottons, linens, the skins of animals, hemp and flax, &c. Cloths, &c. burying.

9th. The food of those who are not infected at such a time should be principally of vegetables and of those which contain the acid salt pretty strongly, together with all sorts of fruits. The chewing and smoaking of tobacco may also be recommended. But the best preservative is a mind free from care and anxiety. Regulating food of healthy.

II. In diseases which are less extensive than the plague, but still highly infectious, and sometimes dangerous, the following should be regarded. Similar disease.

1st. Physicians should study the nature of these remedies appropriated to them, and consider with care what are most likely to remove them.

* This is the law of England.

2d. The poor are to be moved into hospitals, and placed in wards by themselves.

3d. The sick, even in private families, should be separated from those who are healthy.

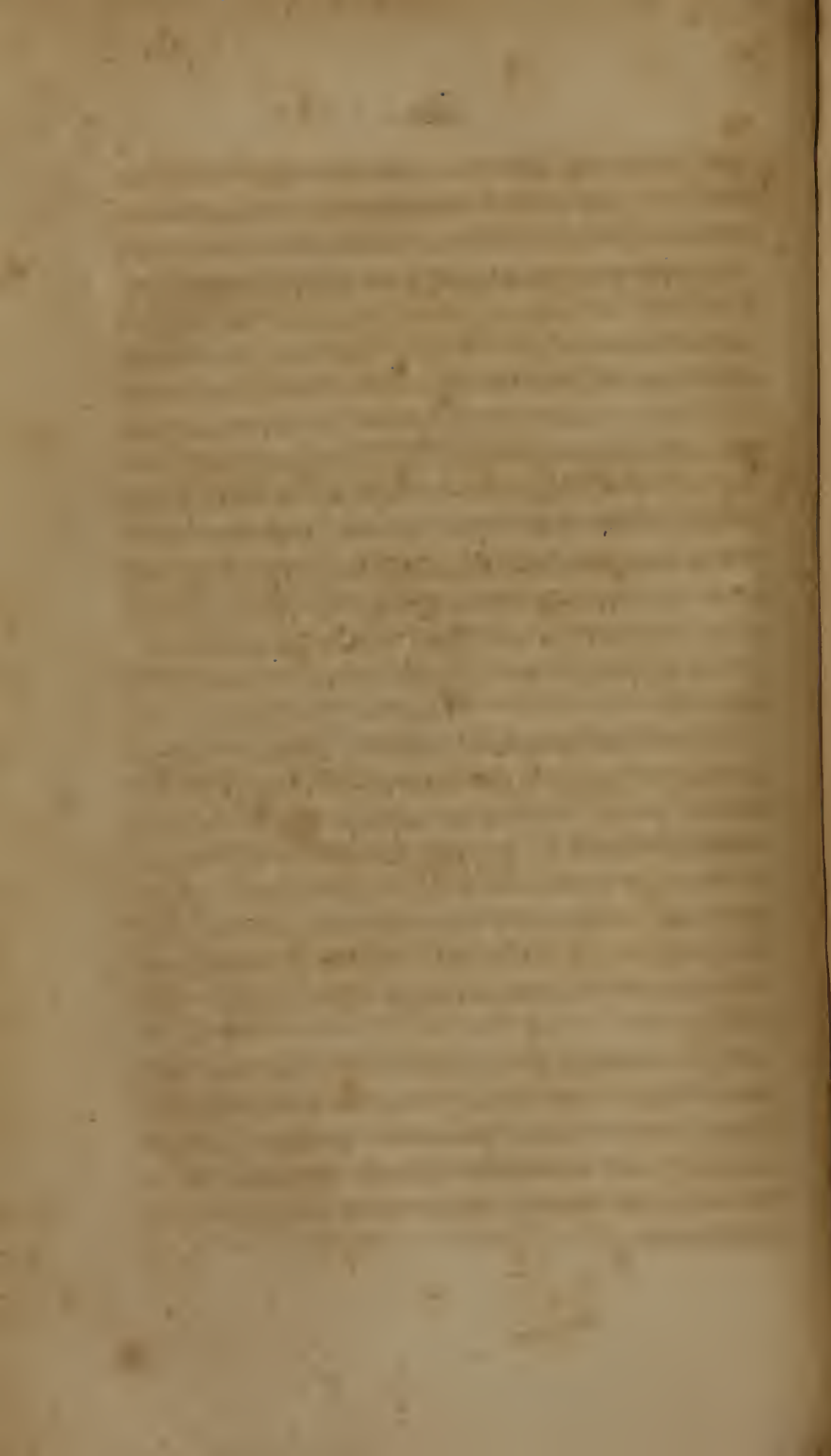
4th. The healthy should live upon a spare diet, nor indulge to excess either in wine or venereal pleasures: the air they breathe should, if possible, be purified.

5th. Chewing tobacco and other herbs, and other preservatory medicines should be used.

6th. Flowers growing in pots should be introduced into sick rooms, as well as aromatic herbs. This should be done likewise in courts of judicature, where it is feared that the gaol distemper prevails.

REMARKS
ON
MEDICAL JURISPRUDENCE ;
INTENDED FOR THE
GENERAL INFORMATION
OF
JURIES AND YOUNG SURGEONS.

BY WILLIAM DEASE, SURGEON.



TO THE

RIGHT HONORABLE

JOHN LORD VISCOUNT CLONMEL,

CHIEF JUSTICE OF IRELAND.

MY LORD,

The propriety of addressing the subsequent Remarks on Medical Jurisprudence to you, appeared obvious—and I am convinced, if they are deemed important by your Lordship, will not be considered as intrusive.

To point out how far in cases of supposed murder anatomical inspection can ascertain the cause of death ; to direct young surgeons in the more material processes of such enquiry, and to enable them to distinguish the effects of injuries, from those spontaneous changes dead bodies necessarily undergo ; and to excite some attention to the present state of Medical Jurisprudence in this country, are the principal objects of this publication.

If, to be arraigned for murder strikes the most hardened villain with horror, what must the innocent culprit suffer?—who, prosecuted perhaps through malignity, and impeached through ignorance, finds his conviction from mistaken prejudice, become a public wish.

How often in those cases do we find a slight hint clear up a doubt that might otherwise have the most fatal tendency?—And it is in those moments of terror and suspense, that a discriminating and humane Judge may, by presenting the case in a proper point of view to the Jury, rescue the unfortunate accused from an impending ignominious death—where the loss of life may be considered as the lesser forfeit.

It has been frequently regretted, that, in the exertion of great professional talents, the milder virtues seem suspended. In your Lordship's official capacity, this never can happen; for while you decide as a lawyer, you always feel as a man.

I am,

MY LORD,

with great respect,

your humble Servant,

THE AUTHOR.

REMARKS

ON

MEDICAL JURISPRUDENCE.

THERE are three important cases in which Surgeons are particularly called upon to ascertain by dissection the cause of death. First, where external injury has been suffered. Secondly, where it is suspected poison has been administered. Thirdly, where a woman is accused of having murdered her child. These are occasions which require in the surgeon a practical knowledge of anatomy, without which he can never accurately distinguish appearances that may arise from injury or disease, from those spontaneous changes all dead bodies necessarily undergo. A good practical anatomist is rare among surgeons even in a great city, and seldom or never to be met with in the country; from this defect many dreadful mistakes have been committed, to the scandal of the profession, and irretrievable injury of the person accused.

There are no situations in which the general malignity of popular clamour is more conspicuous than in those of supposed murder: no sooner is a person suspected, than the rumour of it rapidly spreads, and as it flies exaggerates every circumstance that may tend to criminate the unhappy culprit. To young practitioners those are esteemed favourable occasions for displaying their medical discrimination and attracting public attention: Opinions are hastily promulgated, generally contradictory, often absurd, and frequently grounded on suppositious facts. The consequence is, that the accused is publicly condemned before he is juridically tried, and falls at last, perhaps an innocent victim to popular prejudice. I have on many occasions been present at inquests where the attending surgeon, unused to dissection, did not even know the method of exposing to view the different cavities of the body; and it may readily be conceived how little capable he must have been to decide on so important a point. Yet in those cases, the surgeon, when called on, has no alternative; he must either avow his ignorance, or deliver his opinion; and in the struggle between conscience and pride, I very much fear the former is often sacrificed to the latter.

There is not (I will affirm) on record a more melancholy and striking instance of the unhappy effects of popular prejudice, and the fatal consequences of medical ignorance, than the case of captain Donnellan, who was executed in England about ten years ago, for the murder of Sir Theodosius Boughton: it appears that

eight or nine days after Theodosius was buried, a surgeon had the body raised, although it was in the month of June, and proceeded to the dissection, notwithstanding a physician and another surgeon present declared that, from the putrid state of the body, no information could be obtained on which any opinion could be grounded, respecting the cause of death; and that such an investigation was even attended with much personal danger: yet regardless of this joint opinion and advice, the first surgeon proceeded in the dissection, saying, that to him such a subject was rather a *posy*; and decidedly gave his opinion, that Sir Theodosius died of poison, nor could the testimony of the celebrated John Hunter, who swore that it was impossible to investigate the cause of death in such a state of general putrefaction, do away the impression of the first evidence, on either the mind of the judge* or jury; for the first, in his charge, opposes to the opinion of Hunter, which he says, he can call but a doubt, the positive declaration of the first surgeon who opened the body and of some physicians, that the deceased died of poison. Now Hunter's opinion was positive as to the physical impossibility of deciding on the cause of death, and only doubtful, when interrogated as to the administration of poison. In this country, a case not long since happened, where the medical men concerned, decided that a man died

* The judge is always considered as the advocate of the prisoner;—in Capt. Donnellan's case, he seems to have acted as lawyer for the crown. [The bar was of this opinion. The judge was Buller. T. C.]

of poison ; and I have very good reason to believe his death happened in consequence of a rupture.—The unfortunate accused in both cases were convicted, and suffered an ignominious death, for crimes they both, at their dying moments, in the most solemn manner denied.

No stronger instances can be adduced of the fatal and melancholy effects of popular prejudice, when joined with medical ignorance. From this it appears how necessary it is for surgeons to avail themselves of every opportunity that may tend to improve them in practical anatomy, by which they will acquire a knowledge of the natural appearance of the contents of the different cavities, and when called on, be able to discriminate with accuracy between a sound and diseased state of the parts, and not mistake those changes which take place after death for morbid appearances, a circumstance that I have known sometimes to have happened to experienced surgeons not used to dissection.

When it is necessary to inspect a body, in order to ascertain the cause of death, the sooner after death the inspection takes place, the more accurate the investigation will prove. As these remarks are particularly addressed to the younger part of the profession, it is necessary to point out the most material circumstances that should be attended to in the general order of the dissection.

The first object of enquiry should be into the principal circumstances that attended, and have been deemed to have occasioned the person's death; for

those, when known, will direct the surgeon's attention in opening the body, to many important points that otherwise might possibly (in the hurry of dissection) escape him.* Fully informed as to all those circumstances, the body should be cleaned and placed on a table, in clear day-light; candle-light, for obvious reasons, is extremely improper on such occasions. The external appearances should be first carefully examined, and we should distinguish between those bloody suffusions and putrid distensions which always rapidly take place after sudden death, in full habits, from those that may arise from contusion or disease. Those are circumstances that require the utmost caution in the surgeon, for people not used to inspect dead bodies are very apt to be struck by such appearances, and instantly decide that the person's death was caused by some injury. After a careful examination of the external surface of the body, we begin to open the different cavities, but first the one in which we may expect to find the cause of death; if it proceeded from external injury, we cannot be at a loss where to begin; but if from poison, the state of the alimentary canal should be our principal object.

And here I must request the young practitioner studiously to avoid all hasty opinions, or making any remarks on the case as he proceeds in the dissection, for the attendants are attentive and will recollect; and I have known some instances where the occasional re-

* The surgeon should have paper, pen and ink, by him on a table, to take short notes of the more remarkable appearances while the body is before him. T. C.

marks of the surgeon and his ultimate decision did not correspond.

The three great cavities are those we generally expose. I will begin with the head.

I need not remind the young surgeon, that before he proceeds to open the head, he should have it clean shaved. In short, I cannot too strongly recommend in dissection, the utmost attention to cleanliness and a decorum that should prohibit the exposing unnecessarily any parts that may hurt the feelings of the lookers on, or cast an injurious reflection on those of the profession.

The scalp ought to be first carefully examined. If there appears any contusion, wound, or spontaneous separation of the pericranium from the skull, the extent of those different injuries should attentively be traced.— We should next proceed to examine the cranium, and let the young operator be careful not to fall into the error of Hippocrates, who mistook a future or natural sulcus for a fracture, all injuries of the bone should be traced and carefully attended to. The upper part of the cranium being removed, the dura mater becomes exposed; this membrane in its natural state has a firm, vascular, and filamentous connexion to the whole inside of the skull, its detachment therefore in any part must be the effect of violence or consequence of disease. In large extensive fractures and depressions where death has suddenly followed, we frequently find a considerable detachment of the dura mater under the part injured, and more or less extravasated blood on its surface; in other injuries of the cranium,

it becomes subsequently detached by inflaming and suppurating; but let me caution the surgeon to proceed farther in his dissection, before he pronounces on the cause of death. Before we have done with the dura mater, the state of the sinuses should be remarked, as they are frequently found in many injuries of the brain unnaturally distended with blood. We should then expose the pia mater to view; it is a vascular web, and the connecting medium between the various vessels that pervade the brain. When death is the consequence of concussions of the brain or injuries of the cranium, we will find the cause of death either in extravasation, suppuration, or a general collapsion of the brain, so that it does not fill the cavity of the cranium. If death immediately succeeds the injury, we must look for extravasation either on the surfaces of the pia mater, corpus collosum, in the ventricles or about the basis of the brain; for all shocks which the head receives are readily communicated to the pia mater, and either produce a temporary suspension of the circulation through it (as happens when a man is knocked down or stunned) or else some of the the fine vessels are ruptured, and a fatal extravasation of blood ensues. In the various injuries of the cranium which after some time cause death, we always find the suppuration formed in the pia mater; for the effect of all concussions are instantaneously propogated throughout this vascular membrane; and although a rupture of some of the finer vessels may not be produced, still the temporary derangement in the general circulation through the brain. particularly

when combined with local injury, must ever be looked on as a strong exciting cause to future inflammation and suppuration; and this is every day confirmed by experience; for in more than five-and-twenty years extensive practice, in which time I have opened more heads than, I believe, most other practitioners, I never, in a single instance, found the contrary.

Should our inspection have for its object the ascertaining the cause of disease, our enquiry must be directed by the leading symptoms that attended it; apoplexy or hydrocephalus are the two most frequent occasions for such examination: in the first extravasations of blood are frequently found in the ventricles from a rupture of some of the vessels in the plexus choroides, or in the folds of the pia mater; in the second, we should take care not to mistake the water, that is generally found in the ventricles, for a morbid accumulation.

As to other diseased appearances that may occur in in dissections of the brain, such as steatoma and fungous tumors of the dura mater, those enquiries do not admit of any particular direction.

We now proceed to the examination of the thorax; and, first, we should carefully examine any wound that may externally appear, and trace its traject: Observe whether the ribs, sternum, or dorsal vertebræ, be fractured. After this is done, the cavity of the thorax should be exposed. We should examine the different cavities, right and left, the duplicature of the pleura or mediastinum, the pericardium, and see whether there be extravasation of blood, water or mat-

ter, in any of those different cavities. We should observe whether the lungs fill the cavity of the thorax, or are in a collapsed state, and perhaps wounded : It is often difficult to trace a wound through the lungs. I have more than once been embarrassed on such occasions, and but for the extravasation in the cavities would have found it difficult to determine whether the sword passed through the lungs or heart, for by the collapsion of the parts the traject of the wound became effaced. Our next object should be to examine whether the lungs are inflamed, gangrened, tubercular or any part of them in a state of suppuration : on those points we may decide from their appearance, weight and density, or by cutting into them; the large blood-vessels, and the thoracic duct should next be inspected; and we should carefully look whether aneurism, polypi, or wound has taken place in them. Having satisfied ourselves as to those different points, we proceed to open the abdomen.

The external appearances as to wounds, contusions and fractures of the vertebræ should be first enquired after ; then the different parts of the abdomen, where ruptures usually appear, should be carefully examined. In cases of suspected poison, great attention should be paid to this enquiry, for the symptoms of a rupture under the circumstances of stricture may, by the ignorant, be imputed to the administration of poison, as, in both cases, the patients are harrassed with incessant vomitings, &c. Satisfied as to all those points, we proceed to expose the cavity of the abdomen, and examine if it contains extravasations of wa-

ter, matter or blood : the first will be at once obvious ; the second may be in the cellular membrane that envelopes the psoas muscles, or lines the pelvis. Blood will generally decend and be found about Poupart's ligament. The different viscera next should be accurately inspected, lest any of them should be wounded, or in a diseased state. I need not surely remark, that the urinary passages, and organs of generation lie outside the abdomen ; and if there appears any necessity for it, they may be separately examined.

We next proceed to open the alimentary canal ; and abstracted from wounds, our enquiry will be directed in general to ascertain whether poison had been administered ; this we do by an accurate examination of the stomach and intestinal canal and a chemical analysis of their contents ; but it will be first necessary minutely to enquire into the leading circumstances and symptoms that preceded the person's death. Poison is a very relative term. It is an old adage, that what is one man's meat is another man's poison. It depends not only on the quality, but the quantity, of the substance given, and its activity on the vehicle in which it is mixed or suspended. There are but few poisons that have not been medicinally administered from time to time, without producing any dangerous complaints ; nay, Morgagni affirms that mountebanks have been known to swallow arsenic rolled up in suet, or lard, and retain it for some time in their stomachs ; then vomit it up, without sustaining the least injury.

Although it is difficult to define poison medically, yet mankind judge rationally, and consider *that* as

poison, which given in a certain quantity, induces sudden death, and which is administered in such quantity for such purpose.

Poison may be drawn from the mineral, vegetable and animal kingdoms. The two first will form the only objects of our present enquiry, being the substances usually given for the purpose of poisoning. Of the mineral poisons arsenic is most frequently administered; the action of all mineral poisons is immediately on the stomach; which it throws into violent spasms, induces incessant vomiting, pain, hiccough, distention of the abdomen, and in some cases which I have seen it appeared as if drawn in towards the back, frequent deliquium, cold sweats, convulsions and death; the body turns suddenly putrid, becomes horridly inflated; the head, tongue, fauces, monstrously swelled and black; the whole carcase emits the most putrid stench, and the scarf-skin peels off on touching it. On viewing the stomach, it appears inflated, often inflamed with gangrenous spots, or rather suffusions, here and there spread over its surface and the blood vessels distended. When opened, the villous coat has all the appearance of having suffered great inflammation: often an eschar is observed, encircled by an inflammatory ring: this has been deemed characteristic of the action of arsenic; but I know to a certainty, that it is not. An inversion of the intestinal canal is also frequently seen. Having finished the anatomical inspection of those parts, we next proceed chemically to examine the contents of the stomach.

[A NOTE. As juries are summoned to decide *super visum corporis*, with the dead body before them, they ought to have the stomach opened and the contents taken out in their presence. If it be necessary to have the contents examined by a professed chemist, he should be specially appointed by the jury for the purpose; and called before them, before the contents of the stomach are taken away. The inquest should be adjourned to receive his report. T. C.]

I am convinced that many erroneous and fatal opinions have been drawn in those cases from the most bungling and inaccurate processes: the most decisive method of ascertaining the existence of arsenic in the contents, is by exposing the detached substance we deem to be arsenic to the effects of fire, when an aliaceous smell will be emitted; to make the experiment usually tried on copper, which it turns white; or to precipitate it by a preparation of sulphur.*

If we but for a moment consider the circumstances that happen previous to death, the incessant vomitings, constant dilution and often small quantity of the poison taken in, it will not be surprising that it should elude all chemical investigation, and that the whole of the poison may be frequently ejected soon after it has been received, although its deleterious effects continue. Besides, few bodies are opened until twelve or twenty-four hours after death; and at those periods very important changes rapidly take

* On this subject see the appendix to the present volume; the directions now given are insufficient. T. C.

place ; so that to detach arsenic from all adventitious substances (under those circumstances) is more to be wished for than expected, and all mineral poisons, as to their immediate action, if given in such quantity as to produce sudden death, are similar in their effects and local appearances.

I attended two healthy men that were poisoned by drinking claret made up with sugar of lead—a frequent practice in correcting sour wine ; they both died in the course of forty eight hours after ; and it was impossible, either from the the symptoms that preceded death, or the appearances found on dissection, to determine what kind of mineral poison had been administered.*

Vegetable poisons, particularly the laurel, may be ranked among the most powerful ; their action seems more immediately to engage the nervous system, than locally to affect the stomach ; therefore convulsions, epilepsy, apoplexy, and death, soon succeed : nor can the effects, particularly of the laurel, be observed, on inspecting the stomach and alimentary canal. Any opinion founded on the smell of the contents, or giving them to a dog, disguised in food, I consider of no weight in deciding on so important a question. I will just remark that where death has in a few hours followed the administration of poison, if mineral, the excitement is first local ; soon after the nervous system becomes affected : if vegetable, the nervous system be-

* Lead thus held in solution can be precipitated white, by sulphuric acid ; and turns black by sulphuretted hydrogen. T. C.

comes at once engaged, and no characteristic local effect can be perceived on dissection. In either case death seems to me to be more immediately produced by pain, the fatigue of vomiting, convulsions, and, in short, general sympathy, than from any organic injury.

I have been frequently called on in cases of death, where poison was supposed to have been given; and after the most accurate anatomical investigation, I never could decide, the appearances were so ambiguous. Should this appear extraordinary, it ought to be remembered that in all cases of sudden death, (particularly if the deceased was of a full habit), the body swells, and suddenly turns putrid: although this event may in a shorter time take place, and in a more extensive way, where poison has been administered; yet this is a matter involved in so much doubt, and depends so much on contingency, arising from season, situation, and various other circumstances, as to render it of little weight in deciding on so important a point.

Poisons of all kinds induce sudden putrefaction, and so do spirits, when drank to such excess as to cause death. I remember the case of a woman accustomed to drink spirits in such quantities as to be almost continually drunk: this woman was found dead in her room; I was called a few hours after; she was then so putrid that I smelt her from below stairs. On examining the body, it was horridly inflated, bursting with putrefaction, the scarf skin peeled off with the slightest touch. On opening the stomach, an aliaceous smell, or that of garlic, was extremely perceptible; this con-

vinced a gentleman present, that arsenic had been administered. It was in vain I informed him that arsenic unless exposed to the action of fire, was inodorous : the family became alarmed, doubt and terror seized them ; Providence directed me to a closer examination, and I found a box of asafœtida pills (which she usually took from time to time) in the window. This immediately so struck me, that I turned out the contents of the stomach into a bason, and found a pill undissolved, I need not mention from what impending misery a husband (who was the person suspected of having poisoned her) was saved.

As to the appearances of inflammation and gangrene, all who are conversant in dissections, know that they indicate the commencement of putrefaction as frequently as the effects of disease. There is hardly a stomach of those who die of short illness, that does not present suffused spots, the gastric juice often acts on the stomach as a solvent after death, and from this cause the stomach has been found eroded in different parts, as if acted on by some of the mineral poisons, which by the ignorant may be taken for morbid appearances ; I therefore am decidedly of opinion, that unless arsenic is found actually in the stomach, all the other marks of its having been administered, are extremely equivocal, and should be of no weight in determining on a point of so much consequence, and where (should any mistake arise) the accused person may suffer an ignominious death.

Juries therefore in all cases of suspected poison, in forming their opinion, should attend more to the other

circumstances that may occur in the course of the trial, than to the report of the surgeon; all medical opinions in those cases being more frequently founded on mere conjectures, than real facts, are little to be relied on.*

The next circumstance in which the opinion of a surgeon is usually demanded, is, the case of supposed infanticide.

I honour the memory of the late Doctor Hunter, for a paper which he published in the sixth volume of the London Medical Observations, on this subject; it is replete with anatomical discrimination, directed to the most humane purposes. He is of opinion (and that founded on long experience and an intimate knowledge of the feelings of the sex, in the most critical and trying moments) that infanticide is rarely a premeditated act. In fact, women who are pregnant, without daring to avow their situation, are generally poor, deluded, credulous creatures, abandoned by the objects of their affection and cause of their misfortune, often left to struggle with neglect, poverty, and disease. Under the pressure of those circumstances, they retire to some solitary place when in labour, and abandon themselves, in despair to the event, without seeking any assistance. Delivery in those circumstances is frequently attended with hæmorrhage either during the time, or immediately after; the placenta is detached, it frequently lies half in the vagina and os uteri, for want of assis-

* No appearances whatever amount to proof of poison, but the exhibition of it in substance, or the *decided* appearances produced by chemical tests. A physician who is not a chemist, deserves to be reprimanded for ignorance.

tance, a deliquium is frequently induced, from terror and loss of blood; and when the unfortunate woman recovers, perhaps she finds the child dead; and in this situation, surely her concealing the cause of her shame is an impulse of nature, and should not be adduced as a proof of guilt: Yet this very circumstance, (without making any allowance for the state of mind in those moments of terror and shame) gives rise to suspicion, and often leads to an enquiry, that in the event, has consigned many an innocent woman to an ignominious death. If the appearances of poison are found extremely equivocal on dissection, those of infanticide are still more so; no judgment, abstracted from evident external injury, ought to have the least weight; the suffused and bloated look of a child in those cases, is rather characteristic of its being still-born, particularly if occurring after a tedious or difficult labour. The experiments generally tried on those occasions, in order to ascertain whether the child was born alive or not, are all made on the lungs, it is concluded, if they float on being thrown into water, that the child came into the world alive; if they sink, that it was born dead; no appearances are less to be relied on. Putrefaction will occasion the lungs to be specifically lighter than water, and cause them to swim on the surface although they had been never inflated, and by inflammation they may become dense, and sink to the bottom, although the child had breathed; besides, the child may have partially or just breathed, and expired on being born. In short, all such appearances so much depend on a variety of con-

tingent circumstances, as render them of little importance in determining in cases of suspected infanticide.

Having anatomically inspected the body, the young surgeon should retire, and reconsider the case before he makes his report: his character is at stake, as well as the accused person's life; both, by imprudence, may be irretrievably lost. In delivering his opinion, or explaining the cause of death, the surgeon's narrative should be simple and candid; let him use as few technical terms as possible, both for the better information of the jury, and to avoid giving a lawyer an opportunity of embarrassing him.

As, abstracted from wounds, fractures, and other external injuries, the causes of death are generally equivocal; wherever the surgeon cannot ascertain them beyond the possibility of a doubt, he should decide in favour of the accused: better ninety and nine guilty should escape punishment than one innocent person suffer.

The remaining points to be considered are the manner of making reports, and the attendance on inquests.

No people suffer more from malicious prosecutions than those of the lower order in Ireland; every dispute is with them generally terminated *fustibus et gladiis*; and he who has got the worst of the battle, swears against the victorious party: two motives seem principally to induce them so uniformly to have recourse to law for redress; the first is resentment, the next money; and in the pursuit of both, it is impossible to describe the flagrant instances of perjury every

day exhibited in our crown offices.—I never attended a trial of this kind, that I was not shocked at the contradictory assertions of both parties, many of which I knew, at the instant, to have no foundation in truth: the witnesses are generally tutored for the evident purpose of perjury previous to the trial, and, in the common language, are ready to *swear any thing* that may be deemed conducive to gaining their suit. The mode of prosecution is simply as follows:—When a man has received a wound, or any other injury, he immediately goes to a magistrate and lodges examinations against the person from whom he received it, and swears he is under the care of a surgeon, and his life is in danger; the magistrate grants a warrant for apprehending the offending party, and, if taken, he is immediately committed to goal.—Now, all this is generally done without much enquiry whether the allegations are well-founded or not.

To be committed to gaol is, in itself, I conceive, a very great punishment, and I am convinced has been the means of corrupting many an innocent man; for shame and character, those barriers against vice, are at once lost: the accused must lie in prison until bailed out, on the surgeon's report of the person injured being out of danger. How many honest, innocent men, have I known ruined before this report was obtained, their families in supporting them in prison, reduced to beggary, and themselves, by wicked association, the effects of despair, the loss of character, become drunken, idle, and profligate, during the remainder of their lives.

There is hardly a man in society that may not innocently become the unfortunate victim of a malicious prosecution. To convince the most incredulous, and to shew to what extent such things are sometimes carried, I will, out of many instances, produce one.

A clergyman of the established church, hearing his wife and servant maid disputing in the kitchen about some trivial matter, went down and only interfered so far as to repel some rudeness offered by the girl to her mistress, by pushing the servant one side.— She either accidentally, or on purpose, fell against the dresser, and received a slight contusion over the eye, of no sort of consequence; she immediately went up stairs, stood at the street door, told the people passing by, she had been almost murdered by her master; and to confirm this assertion, she immediately dropped into an apparently strong epileptic fit.— She was then carried as one expiring to an hospital, and without farther inquiry, the unfortunate clergyman and his wife, were both dragged to Newgate.— The indignation of the populace was at such an height, that the windows of his house were broken, and the furniture thrown out into the street. In the evening the account of this dreadful murder was cried about the streets by the news-hawkers. The next day, this woman was removed out of the hospital to private lodgings, where she continued to be attended by some of the faculty for ten or twelve days, during which time she never could be got to show the least signs of sense or recollection, but seemed to be (particularly when examined) violently agitated and con-

vulsed. I was at this time called into consultation, and on examining her rather unexpectedly, I was at once convinced she laboured under no real complaint, and that she was a vile impostor: there are two objects a medical man should have in view in those inquiries—to alarm the party by fear of operation, or to rouse them into sudden passion by abuse: I took the latter method, and with some harsh expressions, told her I would instantly send her to Channel-row; she, as one electrified, bounced up, and swore I dare not: my business was now effected; I immediately went to the late Sir Samuel Bradstreet, related the whole transaction, and had the clergyman and his wife liberated. On coming back I called to see in what situation my patient was, but she, as soon as I had left the house, put on her clothes, and decamped without leave.—It is needless to comment on this case; I will only add, that the terror and shame, of being so publicly exposed, made such impression on this poor man's mind, as brought his life into the most imminent danger; and the expenses attending his confinement, &c. surrounded as he was with a large family, considerably injured his circumstances.

In order to obviate those abuses in our medical jurisprudence, magistrates should not grant a warrant for committing a man to goal on the mere oath of the injured person, and unless the attending surgeon certifies his life to be in danger. When a person is once committed to goal for an offence of this nature, without a surgeon's report, that the injured party is not in danger of his life, he cannot be admitted to bail.

Formerly, giving certificates of this kind formed a very lucrative part of the practice of surgeons, for they often, in those cases, withheld making any report until paid their demand for their whole attendance. I have known thirty, forty, nay, eighty guineas given, before a report could be obtained. In short, if the accused was rich, or if they thought they could get much money, all parties must be satisfied before a report would be thought of.—It is impossible to conceive the distress that this iniquitous practice has reduced whole families to. I have known the poorer people in such circumstances, sell or pawn every necessary they possessed, in order to get as much money as would satisfy the surgeon, who was generally the principal object, and release, perhaps, a husband or brother from prison. During this negotiation, it was always thought necessary that the injured persons should keep in bed, and appear extremely ill; and they were generally so well instructed, and such good actors, that it required no small share of discrimination to detect them, for they would suffer even severe operations, or any thing that was thought necessary to the carrying on the deception. I have in many of those cases, unexpectedly visited a fellow, and found him eating heartily of beef-steaks, who, perhaps, two hours before, appeared with all the symptoms of a fractured skull. Out of many instances, I will produce one :—A man deemed to be rich, gave another a blow with a stick on the head, and cut him : he was the next day sworn against, and lodged in goal ; the man was attended by a surgeon long

since dead : another was called : no report could be made, as no terms were offered by the man in goal, that would be accepted. Days and weeks passed in this kind of negociation ; for although the man was wealthy, he was tenacious : At length a third surgeon was called ; he found that the man had originally but a slight cut : but that it had been thought necessary (on account of irregular shiverings which the man said he had) to scalp him : (an operation as then performed attended with the most exquisite pain, and by which the skull was laid bare to near the breadth of half a crown.) No other dangerous circumstance appearing, the consulted surgeon, fully convinced of the imposition, in order to terrify the man proposed that he should be immediately trepaned ; the patient enquired the nature of that operation ; the other coolly replied, it was only to bore a hole through his skull with an instrument much like a large augre. This was going too far ;—terms were immediately proposed, and accepted : the shivering ceased, and the man in goal (after a confinement of six weeks) was released, at the expense of near five hundred pounds.

The Royal College of Surgeons, early saw those flagrant abuses, and have done every thing in their power to counteract them ; for by one of their by-laws, no member of the college can demand more than two guineas for a report to a magistrate ; and should he be convicted of making a false and corrupt one, he is publicly expelled the college.

The only point that remains for consideration, is, the attendance on inquests. This has always been

deemed a professional duty which surgeons owe to public justice; and undoubtedly, in most cases, it really is so; however, public motives alone will seldom induce men to act contrary to their private interests. To attend an inquest is, to the surgeon, unprofitable, the loss of time highly inconvenient, and in the event may be productive of very disagreeable consequences; for he is bound to appear at the trial, whence, should he be absent, even on the most pressing professional occasion, he may be heavily fined. Those are very strong motives for surgeons to endeavour, as much as possible, to avoid being engaged on such occasions. I was myself fined fifty pounds by the late Judge Robinson, although he had been previously informed that I had only just quitted the court, on being sent for to a man whose thigh I had amputated in the morning, and who was said to have had a bleeding from the stump: to this excuse the judge paid not the least attention, as, I believe, he supposed it to be ill-founded; so imposed the fine. It is true, I got it taken off next day. But there is something extremely humiliating and vexatious in the various applications necessary to be made on those occasions.

A surgeon not long since had a keeper put on his house, in consequence of a green-wax process, for non-attendance, although he had not been half an hour absent from court; but unfortunately the trial commenced in the interim. This case was extremely distressing, for he was a man surrounded with a small family, and could not possibly command half the sum. The consequence was, the keeper remained on his

house for eight weeks, as the judge who imposed the fine was absent on circuit, and nothing could be done in the affair until he came back. So, after suffering this disgrace, and being at more than ten pounds expense, at length the fine was remitted.

When those different circumstances are duly considered, no reflection can justly fall on gentlemen of the profession, for endeavouring to avoid an attendance that must so materially interfere with their other duties. However, there can be no doubt that it is extremely necessary that inquests should be properly attended, and that the worst consequences may arise, and frequently do, from the want of a good anatomist and experienced surgeon to assist on those occasions. It is absolutely shameful, that in cases where life and death are at issue, the jury, in the more important point of the trial, should have no better direction to form their opinion by, than (perhaps) the evidence of an apprentice, so that justice may be evaded, or innocence condemned.

The business of attending inquests should be therefore made a distinct appointment, or annexed to some of the present professional establishments: so that in all cases of supposed murder, the inspection of a good anatomist and experienced surgeon, may no longer be a matter of mere contingency.*

Before I conclude those general remarks, I request the reader will consider that it never was my intention to go much into detail. The subject undoubtedly

* It is the legal duty of a medical man, to attend on inquests when duly summoned.
T. C.

is important, and required more time and attention than I was able to give it; but, if what I have advanced, will lead to any useful enquiry, or be the means of detecting ignorance or defeating malice, my views are fully completed.

AN

EPITOME

OF

JURIDICAL OR FORENSIC MEDICINE;

FOR THE USE OF

MEDICAL MEN, CORONERS, AND BARRISTERS.

BY GEORGE EDWARD MALE, M. D.

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PREFACE.

THE object proposed by publishing these pages is, to put into the hands of medical men a concise **Essay** on poisons and their **Remedies**, with a collection of those tests which are most to be relied upon for ascertaining their presence: also to point out what is necessary to be attended to in cases of sudden or violent death, that they may be prepared to state their evidence before a **Coroner**, or in a **Court of Justice**, in a manner reputable to themselves and satisfactory to the public. I am not acquainted with any work in the **English language** which treats fully on this subject: to one written in **Latin** by **Professor Plenck**, of **Vienna**, I am indebted for many valuable remarks; but that is in the possession only of a few, and is not a work of hasty reference.

I have divided the subject into different heads, and inserted from the best legal authorities what is directed by the law to be done in each case, the degree of criminality, and the punishment awaiting the offence

committed. In offering this book for the perusal of Barristers, I presume not to interfere in their professional avocations, but to afford them an opportunity of knowing what ought to be done by medical men, in cases of violent death; the antidotes that should be employed when poison has been taken, the tests necessary for its manifestation, and the degree of confidence that is to be placed in them; the external marks occasioned on the body by the different means which cause death, and the usual internal appearances observed on dissection.

A general acquaintance with this subject will enable them to examine medical witnesses more minutely, and detect ignorance or omission on their part, which may have stood in the way of their patient's recovery, or prevented the cause of his death being made apparent.

“Some acquaintance with this part of medical science must be useful at least, and sometimes necessary, to Judges and Lawyers. They will thus be enabled to estimate how much they may depend on the opinion of any physician, and will know how to direct their questions so as to arrive at the truth, and avoid being misled by his partiality or favourite opinions. To the lawyer, who conducts the defence of an accused person in a criminal case, it is almost indispensable; without it, he cannot do justice to the cause of his client: and the duty of a Coroner in England consists almost entirely in deciding questions of juridical medicine.”*

* See review of Foderé's work in *Edinburgh Medical and Surgical Journal*, vol. i.

To Professor Duncan, I acknowledge my obligation for the advantages I derived from his Lectures on Medical Jurisprudence, and have availed myself of my recollection of them, by introducing several of his valuable remarks in this work. There are many voluminous and elaborate systems on juridical medicine by very eminent authors, as Metzger, Zacchius, Mahon, Foderé, Schraud, &c. It has been noticed by Frank, Haller, Percival, and many others, whose works may be consulted with advantage by those who wish further information on the subject. Many good observations are also scattered in various periodical publications. My object has been, not to write a system, but to extract from the best authorities those remarks which appear to be worthy the attention of my readers, and compress them into a form most convenient for speedy consultation. A great part of these pages has been written some years, but, from consciousness of their deficiency, withheld from the press; the indignation however, which has been excited by the perusal of the medical evidence adduced in some recent trials, has induced me to offer them to the public. I shall be happy, if they shall be found in any degree to prevent “those laws which were established by the integrity and wisdom of our ancestors, being injured by our folly, or perverted to an evil by our remissness.”

Juridical medicine has attracted but little interest in this country, although in Germany and France it has occupied the attention, and called forth the labour, of several of their most eminent medical philosophers.

It consists in giving decisions on medical questions in Courts of Justice, and has therefore, in Germany, received a new and appropriate name, that of State Medicine. Distinct notice is taken of juridical medicine in the books of the law of Moses, in which it is commanded that the priests shall be desired to visit houses infected with the plague, or any contagious disease; the inhabitants are to be examined, quarantine established, the walls to be scraped and whitewashed, and the houses shut up, or, in bad cases, pulled down.* The elders are to be consulted in cases of doubtful virginity,† &c. It is noticed also by the Roman law. But the first modern code in which it is mentioned, was made about the year 1545, by Charles the Fifth, Emperor of Germany, called “*Constitutio Criminalis Carolina*;” in which it is enacted, that medical men shall be consulted when death has been occasioned by violent means, whether criminal or accidental, by wounds, poisons, hanging, or the like; and in cases of concealed pregnancy, procured abortion, child-murder, &c.

As early as the year 1650, physicians were consulted in the same cases in Italy.‡ Their opinions are now required by the legislature of all civilized countries in these cases, and bear authority commensurate to the knowledge and respectability of the individuals by whom they are delivered. Professorships on this subject are established in many universities, and its importance is more generally acknowledged; for, on

* Leviticus, chap. xiii. xiv.

† Deut. chap. xxii.

‡ See Commentary on Beccaria's Essay on Crimes and Punishments

the professional evidence of medical men, the fortune, honour, reputation, and lives of our fellow-citizens often depend. It is now considered a necessary part of medical education, and every practitioner of any branch of medicine or surgery should make himself acquainted with it, for his testimony may be required both in civil and criminal cases, and in consistorial courts, and will generally direct the jury in convicting or acquitting prisoners, in establishing the inheritance of property, and in confirming or annulling matrimonial contracts. When the services of a medical man are required in cases of this kind, he should note down correctly every circumstance that appears to be of the least importance. In cases of supposed murder, his evidence will be first required before the Coroner, who cannot act unless the body can be viewed, as it has formerly happened in several instances, that innocent persons have been convicted for supposed murders, committed on the bodies of those who have afterwards made their appearance.* When a dead body is discovered in the fields, streets, or in the water, it must be removed to the nearest and most convenient house, but should not be taken out of the parish in which it is found. We should first ascertain, whether the body is really dead, and, if any spark of life remains, endeavour to call it into action. The situation in which the body lies, should be accu-

* Three persons were hanged at Gloucester, in the year 1661, for the supposed murder of a man who was missing, but who afterwards returned. A similar circumstance happened at Warwick assizes, in the reign of James the First.

rately observed. The first question which arises is, whether the deceased died a natural or a violent death; if a natural death, what was the cause of it; if a violent death, was the violence committed on the spot where the body was found, or elsewhere, and the body carried there afterwards? Secondly, was it committed by himself or another? Thirdly, by what means was the violence committed? If the Coroner is at a distance, and cannot immediately attend, his consent should be obtained for immediate anatomical examination of the body, before putrefaction takes place; and from the state of it we should endeavour to ascertain how long the deceased has been dead; we should also inquire by whom he was last seen, and whether he has lately complained of, or was known to labour under any disease. The inspection of the external parts of the body should be first entered upon, to ascertain whether there are any wounds, bruises, fractures, dislocations, or marks of violence of any kind; and if there is no evident cause of death, the internal parts should next be searched into; the integuments of the head should be carefully examined—the state of the cranium and sutures, and the colour and consistence of the brain observed, and the ventricles opened, to ascertain whether there is any serious or sanguineous effusions: the base of the cranium should be examined minutely, as a fracture sometimes exists there which may be easily overlooked. The mouth and throat should next be inspected; we should observe, whether there is any thing thrust into them, or if there are any appearances of inflamma-

tion or suppuration ; for the bursting of an imposthume in the throat may have caused suffocation. When the thorax is opened, we should observe whether there is any kind of effusion in its cavity, and whether the lungs are sound, as the bursting of a blood-vessel or vomica is frequently the cause of sudden death. The heart and large arteries should be minutely scrutinized ; ossification of its valves or arteries, rupture or enlargement of its substance, or water in the pericardium, may destroy life suddenly. The stomach should be next opened, and its structure examined ; and if there is reason to suspect that the deceased has been poisoned, not only its contents, but the matter which he has vomited, if any, should be collected, and chemically analysed. The other abdominal viscera, and the whole length of the intestinal canal, should be traced, and as it is possible that hernia, intromission or inflammation, may have been the cause of death ; an empoisoned clyster may have been administered, or (as in the case of king Edward the second) a hot poker or other instrument thrust up the rectum. The body should be inspected in the presence of other surgeons, and the appearances noted down on the spot ; and however suspicious they may be, we should bear in mind the possibility of the same effects being produced by very different causes, and, where there is the least doubt, be careful that our evidence does not tend to attach suspicion to an innocent person. We ought to bear in our minds the maxim, that it is better that

many guilty escape, than one innocent man suffer;* and when the evidence is not satisfactory and conclusive, we should deliver our testimony in favor of the suspected person. A medical man should found his evidence solely on *demonstrative* proof; for his declaration, whether founded on experiment or not, is assumed by the jury as fact, merely on his authority as a professional man.† The taste or smell alone, ought to be cautiously admitted as evidence of the presence of poison; though, where vegetable poisons have been employed, it is sometimes difficult to adduce any other.‡ The attitude and marks on the body should be accurately noticed. There is recorded§ the case of a woman who was found with her throat cut, and a knife sticking in the floor near her: three of her relations were in an adjoining room, through which it was necessary to pass to the apartment of the deceased; the neighbours were alarmed, and the body was viewed: these relations declared she must have destroyed herself; but from a particular circumstance,

* I am aware that this maxim is objected to by the late celebrated Archdeacon Paley: let, however, the reader refer to a work, entitled, "Considerations on the criminal Proceedings of this Country," and he will there see a dismal catalogue of innocent victims to circumstantial evidence, and allow, I think, that the maxim is not a bad one.

† It is a legal maxim, *cuique in sua arte credendum est*: hence the credit given to the evidence of an *expert*, or professional person: every professional man, is liable to be called on for his testimony in court, on points appertaining to his profession. T. C.

‡ See medical evidence on the trial of Mr. (commonly called Captain) Donnellan, for the murder of Sir Theodosius Boughton. [They are very ambiguous. T. C.]

§ Hargrave's State Trials.

they were suspected, and found guilty of murder ; for on the *left* hand, was observed the bloody mark of a *left* hand, which, of course, could not be that of the deceased.

Death is sometimes occasioned by causes which anatomy will not discover to us, as concussion of the brain, violent affections of the nerves through the medium of the mind, aerial poisons, or extreme cold.

Sudden death unoccasioned by the action of poisons or external violence, may arise from a variety of internal causes, affecting the different viscera and the sanguiferous system, as apoplexy, aneurismus ossification, syncope, anginosa, ruptures of viscera, most of which may be discovered by dissection : there is, however, a disease called by Mr. Chevalier* idiopathic asphixia, where the person without previous illness, faints and dies ; no diseased appearances are observed on dissection, but the heart is found unusually flaccid, and its cavities entirely empty.

* Med. Chirug. Transact, vol. i.

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AN

EPITOME

OF

JURIDICAL OR FORENSIC MEDICINE.

ON POISONS.

POISONS may be given feloniously, or taken accidentally : in the first case it is an offence of the deepest dye, and a most base and cowardly crime ; it is not so frequently committed in this as in some other countries, where poisoning is a trade. Lord Bacon says, “ Non est nostri generis nec sanguinis.”

By our laws it was formerly considered more heinous than any other murder, and by a statute of Henry VIII. was deemed high treason ; and the punishment provided was, that the guilty person should be boiled to death, and put into the water toes downwards. A cook suffered this punishment for putting poison into food provided for the bishop of Rochester's family, and the poor of the parish.* This law, however, was repealed in the next reign. The art of poisoning has never been carried so far in this country as in Italy,

* Hargrave's State Trials

or has been deservedly forgotten. The *Acqua Toffana*, or *Acquetta* and *Pulvis successionis*, with the composition of which we are in this country fortunately unacquainted, are said to destroy life in any given time, a week, month, or year afterwards, according to the manner and quantity in which it is administered. Many have fallen sacrifices to this insidious treachery, when least expecting it. The Emperor Henry, of Luxembourg received poison in the sacrament, and Pope Victor in the chalice. Pope Clement VII. is said to have been poisoned by the fume of a taper.* Dr. Mead says he was possessed of a poison, the vapour of which was so thin, that it was drawn by the current made by a burning candle, and would poison a person who sat that way, but nobody else; its composition he has not thought proper to mention. Respecting the subtile action of poisons, many wonderful and incredible stories have been told. A priest is said to have offered to destroy Queen Elizabeth by poisoning her saddle.†‡

Poisons may be administered by the mouth; by the lungs through the medium of the air; by the anus, in form of clyster; and by the skin, by means of ointments, [or by simple application, as in the case of the prussic acid, when concentrated. T. C.]

We derive poison from the animal, vegetable, and mineral kingdoms. Mineral poisons are most commonly employed in Europe: they may act chemi-

* Zacchius, *Quæstiones Medico-legales*.

† Sir Edward Coke, in the Trial of Sir John Hollis.

‡ But these subtile methods of exhibiting poison, lack confirmation. T. C.

cally or mechanically; most of them have a chemical action; but there are some, as diamond powder, cut hair, pounded glass, &c. which act mechanically. I shall not enter into a discussion respecting their *modus operandi*, as it is foreign to the plan of this work; it has long been a subject of dispute, and has been very ably treated by a variety of authors, and lately by Mr. Brodie. The aerial poisons* are frequently the cause of death, but more commonly by accident than design.

Poisons have been arranged in two classes, quick and slow, according to the rapidity with which they produce their peculiar effects, and are divided into two orders; *first*, stimulant and inflammatory; *secondly*, narcotic and stupifying: these again have been formed into many subdivisions, which I shall not notice, as they are of no practical importance.

When we are called to a person who is *suspected* to have taken poison, the first question which arises is, has he been poisoned? the second, by what particular poison? We should examine the food he has last taken, if any of it remain; and if no mineral or vegetable poison can be detected in it, we should observe whether it has any peculiar smell or taste, and ascertain its effects, by giving a portion of it to a dog;† but this is not to be depended upon, as what is poisonous to one animal is not to another: aloes is said to be poisonous to dogs and foxes, and sweet almonds to cats.‡

* As carbonic acid gas, and carburetted hydrogen from burning charcoal. T. C.

† Rather to fowls. T. C.

‡ See Mahon, vol. ii, p. 502.

Corrosive sublimate, of which a few grains are a strong poison to man, may be given to horses to the quantity of an ounce, without occasioning death.* Dogs can bear with impunity a much larger dose of this substance than man.† Many vegetables, which constitute the natural food of some animals, are destructive to others. We should examine whether the matters composing the food are wholesome within themselves. Grain, particularly rye, affected with a disease called by the French *ergot*, produces symptoms very similar to those occasioned by poison; viz. vomiting, purging, swelling of the body, and gangrene of the extremities.‡ Fresh wheat, affected with mildew, produces also baneful effects; and when the flour is very bad, it is said to excite pustules and boils on the hands of those who work the dough.§ The seeds of the *lolium temulentum*, mixed with wheat, are productive of similar consequence, and if given to hogs, fowls or other animals, prove destructive to them.

But we should distinguish from poisons those things which, from a peculiar idiosyncrasy of constitution, produce on some persons violent effects, as

* See a paper in the fifth volume of Edin. Med. and Surg. Journal, by Dr. Reeve, on the Effect of Oxymuriate of Mercury on Horses.

† Within fifty hours Doctor Nancrede and I, gave to a young dog of about 20 lbs. weight, 16: then 22: then 52: then 150 grains of powdered white arsenic: the three first doses within 35 hours: Then after three days 12 grs. of corrosive sublimate: then 30 in 24 hours after the 12. Each dose was fairly and fully taken. They were mostly vomited up: at the end of a fortnight the dog was well. T. C.

‡ Hoffman, Mat. Med. vol. 2, chap. 9.

§ M. Sage, Moyens de remédier aux Poisons, &c

strawberries, honey, salmon, shell fish,* and a variety of other things, which occasion eruptions, vomiting, purging, and symptoms of actual poison. The food may have consisted of deleterious vegetables, as different kinds of fungus, hemlock, &c. which are often mistaken for mushrooms, hedge-parsley, chervil, or other innocent herbs.

We should inquire whether the patient has been subject to periodical colic, or bilious vomiting or purging.

If a person has been poisoned by vegetable substances, we may often discover them in the stomach, or among the matter vomited. Seeds, half-digested fungi, leaves, &c. are sometimes found. We should be careful not to mistake the green produced by copperas, or bile, [turned green by morbid acid, T. C.] for vegetable green. Persons eating the same kind of food, in the same quantity, may be differently affected: if the stomach is nearly full when it is taken, it is much less likely to cause death; for, being mixed with the food, it is thrown up by vomiting. The matter vomited should be collected in a china basin or clean earthen vessel, and examined; as, when a dissolved poison, or one easily soluble, has been taken, it is there that we are to expect to find it, and not in the stomach. † ‡

* Once on eating muscles for supper, tho' I had eaten them frequently with impunity, a violent itching broke out over my whole body; my eyes swelled and were closed up for about 24 hours. A cathartic and diluting drinks overcame the disorder. T. C.

† See a paper on this subject, by Dr. Bostock, in the fifth vol. of Edin. Med. and Sur. Journal.

‡ But the stomach should likewise be examined for particles of arsenic or other poison, detained in the villous coat. T. C.

We should inquire into the previous state of the person's health, both bodily and mental; whether he has been taking medicines, and of what kind. In all cases of dubious or criminal poisoning, the body should be opened and examined in the presence of medical witnesses; the stomach should be tied at each orifice, and removed, that its contents may be subjected to chemical analysis: if sufficient cause of death does not appear in this organ, other parts of the body, particularly the brain, heart, and whole length of the intestinal canal, should be examined. Apoplexy, and other diseases of the brain, frequently affect the stomach and occasion vomiting; and the peculiar sympathy between the uterus and the stomach is well known.* Introsusception of an intestine may exist, and have been the cause of death. Children sometimes die from the effects of this disease in a few hours: they are afflicted with colicky pains, violent irritation, vomiting, bloody stools, and convulsions.† Worms found alive in the stomachs of those supposed to have been poisoned, may perhaps be admitted a presumption to the contrary.

Unless all the different viscera are examined, it is doubtful how far surgical evidence is admissible in a court of justice. We should be careful not to give an opinion that a person has been poisoned, without being able to produce irrefragable proof of the fact.

Froth issuing from the mouth, soon after death, is not peculiar to those dying by poison, but is often ob-

* Vomiting may also be occasioned by affectation of the kidneys. T. C.

† See Hamilton's Hints.

served, particularly in cases of sudden death, and always in drowned persons.

The symptoms produced by poison are by no means uniform: convulsions, extreme pain, and other effects, which are mentioned as consequences, do not always exist; and, in forming an opinion, these facts should be taken into consideration.

It often happens, that, when called to a person who has taken poison, we are unable to procure those remedies which are usually recommended in such cases: it should be remembered, that the great object is to dilute the poison, and remove it from the stomach as quickly as possible: this is to be effected by drinking plentifully of warm water or gruel, with which oil, soap, or mutton suet is mixed—tickling the throat with a feather, or the finger, so as to produce vomiting, or taking a quantity of mustard, which operates as a speedy emetic: if strong acids have been taken to the above remedies should be added chalk, magnesia, or common potash, properly diluted.

ANIMAL POISONS.

THE animal poisons of this country are few: those of hot climates not coming within the design of this work, I shall not speak of. The venom instilled into a wound, by the teeth of a mad dog, adder, or the stings of hornets, &c. produces its effects by external application.

Hydrophobia is a disease of the most dreadful description; anxiety, uneasiness, languor, spasms, hor-

ror, disturbed sleep, difficult respiration, and loss of appetite, are the first symptoms, which gradually increase; violent convulsions and spasms of the whole body follow, hideously affecting the muscles of the face; sobbing, redness and protrusion of the eyes; the tongue is swelled, and sometimes hanging out; bilious vomiting, a viscid saliva flowing from the mouth, perpetual spitting, pain in the stomach, great impatience, a horror of fluids, and impossibility of drinking them, characterize this terrible disease. The unfortunate person often endeavours to spit upon and bite those about him. It is now believed that, were he able to do so, he would not communicate the disease to the person bitten.

The remedies best adapted to prevent the bad effects which may arise from the bite of a mad dog, or the stings of venomous animals, are, washing the parts, and sucking out the poison;* afterwards the application of the actual cautery, caustic, or (what is most to be relied upon) extirpating the parts with the knife. The wounded part should be made to bleed freely, and a purulent discharge kept up by means of stimulating ointments.

Hydrophobia is more easily prevented than cured. Mercury, arsenic, internally and externally applied. opium, musk, camphor, acids, wine, vegetable and mineral alkali, oil, various herbs, and many other reme-

* For a person bitten: apply a ligature if possible above the wound: pour warm water into the wound (after enlarging it,) from the spout of a teakettle for an hour: adding to the water volatile alkali. For the stings of venomous animals do the same; that is, apply volatile alkali externally, and exhibit it internally. T. C.

dies, whose effects are quite opposite, have been employed, and, though each has been supposed to be useful in particular cases, no one is to be relied upon.— Large and repeated bloodletting, formerly recommended by Tissot, has lately been again brought into practice; and there are several cases recorded in the eighth volume of the Edinburgh Medical and Surgical Journal, where it has been productive of beneficial effects. The blood should be drawn from a large orifice, and suffered to flow ad deliquium animi. The people of Tunis, when bitten by any venomous animal, after scarifying the wound, rub it with olive-oil, which they believe arrests the progress of the poison.*

The cantharides, *Lytta vesicatoria* is sometimes administered as a medicine; but, when taken internally, either in substance, infusion, or tincture (except in very small quantity,) it occasions the most violent effects, as tenesmus, priapism, furor uterinus, involuntary pollution, bloody urine, strangury, violent pain, inflammation and ulceration of the stomach, bowels, bladder, and urethra; delirium, convulsions, and death. If the fly has been given in powder, it may probably be discovered, mixed with the ejected matter, or, after death, adhering to the coats of the stomach, and may be known by its peculiar green and gold colour; but, if given in form of tincture or infusion, we have no means of discovering it.

I know only of one case where the *Lytta* has been given with a felonious intention, viz. that of Sir Thomas Overbury, who (on the confession of the person who

* See Jackson, on the Commerce of the Mediterranean.

administered it to him) is said to have taken it, mixed with his sauces. It has however, been occasionally taken to goad the exertions of exhausted nature ; and when in too large quantity, has produced the effects already mentioned. [Dr. Graham, of London, a noted empiric, gave it to a gentleman lately from the East Indies, but it produced death by over-stimulus.

[T. C.

Remedies.

The remedies to be applied are oil, milk, emollient drinks, as gruel, linsced-tea, drank plentifully, and thrown up by clyster ; they may also be injected into the bladder, with probable advantage. The specific antidotal effects of camphor are not now credited.

Dissection.

On opening the body of a person who has died of hydrophobia, the tongue and fauces are sometimes found inflamed and swelled ; and inflammatory appearances are observed in the brain, with serious effusion on its surface.* The stomach is also inflamed, and there is an accumulation of blood in the lungs : but

* Erysepelalous spots thickly strewed all down the course of the Oesophagus into the stomach. I have seen this on the dissection of a man, and also of two dogs who died of hydrophobia. T. C.

To the animal poisons, we may add the concentrated prussic acid, of which we have little knowledge yet. T. C.

in some cases no morbid appearances whatever have been discovered.

VEGETABLE POISONS.

VEGETABLE poisons are divided into two classes, the *acrid* and the *narcotic*. The first occasion pain, inflammation, and erosion; the latter, sleep, stupor, and death; sometimes producing purging, vomiting, and convulsions. Several of them are, however, employed in medicine.

The effects of mineral are less simple than those of the generality of vegetable poisons; and when once an animal is affected by the former, there is much less chance of recovery than when he is affected by the latter.*

The poisonous vegetables found in this country are fortunately but few: those most commonly met with are *Hyoscyamus* (henbane,) *Cicuta virosa* (water-hemlock,) *Atropa bella-donna* (deadly night-shade,) *Aconitum neomontanum* (wolfsbane,) *Datura stramonium* (thorn-apple,) *Digitalis purpurea* (foxglove,) *Lauro-cerasus* (common laurel,) several of the tribe of fungi, or mushrooms, and the juice of the poppy or opium.—The effect of most of these, is an impression on the nervous system, which, if considerable, frequently produces death.

Henbane is a most valuable medicine; but, when

* See Experiments and Observations on the Action of Poisons, by Mr. Brodie.

given in two large quantity, becomes a very dangerous poison, occasioning stupor, symptoms of intoxication, apoplexy, or furious mania, extreme agitation, convulsions, sometimes vomiting, and remarkable dilation of the pupils of the eyes, which become insensible to the stimulus of light.

Water-hemlock is one of the most deleterious plants Great-Britain produces; it occasions convulsions and sudden death, but does not cause sickness, or any complaint in the stomach or bowels. The smell of it in a close room occasions giddiness and head-ache. The conium, or common hemlock, is by no means so poisonous as water-hemlock.

Wolfsbane or *monkshood*. The leaves and root of this plant are violently poisonous when fresh, but not so much so when dried. They produce heat in the mouth, throat, and tongue, which gradually affects the whole body, occasioning spasm of the muscles, great debility, and giddiness; sometimes purging and vomiting succeed, followed by delirium and insensibility.

Deadly-nightshade. This is a most violent poison, the berries of which, having a beautiful and tempting appearance, are often eaten by children, and occasion the most fatal consequences. The effects produced by this plant are giddiness, difficulty of breathing, pain and tightness of the breast, distressing thirst, and dreadful ravings, fatuity, but not stupor; the jaws are frequently firmly closed, the eyes staring, the pupils dilated and insensible to light; universal agitation and trembling, particularly of the tongue, difficulty of

swallowing, and unavailing efforts to vomit. “The body soon putrefies, swells remarkably, and is covered with livid spots—blood flows from the mouth, nose, and eyes, and the stench is insufferable.”*

Thorn-apple. The effects produced by this plant are giddiness, great terror, delirium, debility, stupor, and death.

Foxglove, administered in proper doses, is an excellent medicine: it is frequently taken by the lower class of society as a remedy for dropsical complaints, in form of infusion, without proportioning the dose to the activity of the medicine: when taken to the quantity of a few grains, it produces violent vomiting and purging, giddiness, delirium, hiccup, convulsion, and death. Every part of the above mentioned plant is poisonous.

Different species of the order of fungi, particularly the *agaricus muscarius*, or bug-agaric, and the *fungus piperatus albus*, or pepper-agaric, have a deleterious effect, and produce swelling of the body, delirium, sickness, and great pain, succeeded by vomiting, purging, cramps, and convulsions. When eaten in small quantity they have an inebriating effect. We are informed by Haller, that the Russians eat almost every species, even those which other nations esteem the most dangerous.†

The leaves of *Laurel*, distilled with water, become a very quick poison. A tincture or decoction would probably have the same effect. This poison was not

* See Edinburgh New Dispensatory, by Dr. Duncan, jun.

† Haller, Helvet. Hist.

known till the year 1728, when it was accidentally discovered in Ireland, and an account of it published in the *Philosophical Transactions*.* When two or three times distilled with fresh leaves, a heavy essential oil comes over, which, by shaking, becomes incorporated with the water. Two ounces of this killed a middle-sized dog in less than half a minute, even while it was passing down the throat.† The smell of laurel-water is similar to that of bitter almonds, from which, when distilled, a poison is extracted, similar to the laurel in its effects. When laurel-water is given in smaller quantity, it produces sudden and violent convulsions resembling epilepsy, paralysis, and death.

From the experiments of Dr. Browne Languish, it appears that, if laurel-water be given to a dog, in gradually increased doses, mixed with his food, he will be enabled to bear as much as four or five ounces, without sustaining injury; but, if one ounce, undiluted, be poured upon an empty stomach, it will occasion violent convulsions and death.‡ By the same authority, it appears that laurel-leaves, beaten into a pulp, have a deleterious effect upon animals.

The only instance on record of a person being tried on suspicion of having unlawfully administered this poison, is that of Mr. Donnellan, at Warwick, in the year 1781.||

* Vid. *Philosophical Transactions*, vol. xxxvii.

† See Fontana on Poisons.

‡ Experiments on Brutes.

|| Judge Buller, presided. Donnellan was condemned and executed on circumstantial evidence only, greatly to the disapprobation of the Bar, as well as of the public generally. T. C.

The essential oil of bitter almonds is the most speedily fatal of any poison we have : the smallest quantity inserted in a wound causes death. Opium is injurious to some constitutions in very small doses ; others, from habit, are enabled to bear considerable quantities, without sustaining inconvenience from it. When administered in a large dose, to a person not accustomed to it, it generally produces vomiting, whereby its fatal effects are often counteracted ; but, if this does not take place, giddiness, nausea, intoxication, delirium, and stupor succeed, terminating in death.

A case is recorded by Dr. Marcet, in the first volume of the Medico-chirurgical Transactions, where six ounces of laudanum were taken by a man, and remained in his stomach five hours before any remedies were applied for its removal : he, however, by perseverance in judicious treatment, eventually recovered.

Opium and laudanum are not unfrequently sold by druggists, by mistake, for other substances of similar appearance.

Remedies.

The remedies for henbane, hemlock, nightshade, wolfsbane, thorn-apple, poisonous mushrooms, and opium, are active emetics, as sulphate of zinc or copper, purgatives, strong infusion of mustard, clysters, alkaline salts, oil or milk drank plentifully, blisters to the stomach, and strong vinegar in large quantities, particularly when thorn-apple or opium have been taken : to counteract the effect of the latter, strong cof-

fee has been recommended, and the person should be moved about and agitated, to prevent his sleeping.* Bleeding has been advised, but should never be resorted to till the pulse becomes full, and there is danger of fever supervening. Blisters applied to the stomach will probably be useful in all cases of vegetable poison. As the effects of very large doses of opium are decidedly sedative, brandy and water, and other stimulants, should be given after the poison has been removed from the stomach. When *Foxglove* has been taken in too large a quantity, brandy and water, to which some spirit of horseradish, or ammonia, or other stimulating cordials are added, should be administered, and blisters applied to the stomach. The antidotes to *Laurel-water*, are, alkaline salts, and other stimulants. The spirit of ammonia well diluted with water should be forced down the throat to the extent of two or three drachms. [Of prussic acid we know as yet very little. Though an animal acid, it seems allied to Laurel-water. T. C.]

Dissection.

The bodies of those who have been destroyed by vegetable poisons, generally swell prodigiously, soon become offensive, and covered with livid gangrenous spots.

On opening the body, the viscera are usually found in a sound state, but the veins are full and distended,

* May not warm water be thrown into the stomach through a caoutchouc or even leather tube, and then pumped up? T. C.

the blood remarkably fluid, and the arteries empty ;* but when the deadly nightshade has been the cause of death, the intestines are inflated and inflamed, or corroded and gangrenous.†

To the above catalogue of poisons may be added the aroma of certain plants and flowers, as the lily, mignonet, saffron, &c. which are said to have produced asphyxia, and even death.

A strong infusion of tobacco, given as a clyster, is poisonous, and occasions speedy death.

There are other plants, as the arum, the yellow lily, the squill, meadow saffron, &c. which, when taken in considerable quantity, cause vomiting and other severe effects. The juice of the veratrum album, applied to a wound, is said to occasion convulsion and death ; and the powder of it, so applied, violently affects the stomach and bowels : taken internally, it proves a strong emetic, occasioning severe convulsions and other bad effects.

There are a vast number of animal and vegetable substances, the product of India and America, which are highly deleterious, to treat of which, would be foreign to the object of this work. Some are of so poisonous a nature that the smallest quantity will occasion death, as the Ticunas, the Accawaw, and the Caruna,‡ the hundredth part of a grain of which, infused into a wound, will kill a small animal. A maggot bred in the putrid milk of the *Jatropha Ma-*

* See Fontana on Poisons.

† Edin. Dispensary, by Dr. Duncan, junr.

‡ Bancroft's Guiana, p. 98, 266, 288.

nihot, is so potent, that the smallest quantity infused in drink is sufficient to destroy life, and is said to be occasionally employed for that purpose by Africans and Negroes.*†

OF MINERAL POISONS.

The metallic and mineral poisons are lead, copper, arsenic, and orpiment, mercury, antimony, silver, barytes, metallic fumes, and the mineral acids. These substances are not poisonous in their metallic state, but become so when united with acids.

LEAD.

Lead is found in the shops, in the state of red and white oxyde and litharge, and its action is greatly increased by union with acids: it is used in medicine both externally and internally. As external remedies in cases of inflammation, sprains, contusions, &c. the preparations of lead are very valuable! but their application is not altogether unattended with danger, particularly when applied in the form of poultice to ulcers and open wounds: there are several cases recorded, in which colic, and slight paralytic affection, have been occasioned by their use‡. Dr. Percival

* See Long's Hist. of Jamaica, vol. iii. p. 781.

† The general practice for vegetable poisons, seems to be repeated vomits with much diluting liquor where the patient is sensible and can take it. If not, throw in the emetic and the warm water by tubes; or if the emetic will not act, pump up the water. T. C.

‡ Med. Essays.

says, he has been assured from undoubted authority, that a gentleman had a slight paralytic affection from putting his feet every evening on a piece of lead near the fire, and that his dog lost the use of his limbs by lying on it.

Preparations of lead have been given internally in small doses, in cases of ulcer of the bladder, vomiting of blood, and other diseases, in which astringent and styptic remedies are required; but they should be administered with great caution, as the most dangerous effects may result from their use. Lead is classed among the slow poisons: it is seldom or never given with the intention of poisoning, but is received into the body mixed with our aliment, or dissolved in wines. Any acids or fermenting substance, kept in vessels lined or glazed with lead, will dissolve a portion of it; and thus we may be taking in a slow but certain poison, and experience all its dreadful effects without suspecting the cause. Delicate people and children are effected by the smell of paint, and there are instances of their having the colic from sleeping in a recently painted room.

Lead is destructive to animal and vegetable life. Plants set in pots of this metal do not thrive, and poultry fed in troughs lined with it, pine and die. It was formerly a common custom to sweeten cider and acid wines, by suspending a ball of lead in the centre of the cask; and to such a pitch had this dangerous art arrived in France, that its practice was made a capital offence. As lead unites very readily with oils, the acetate of sugar of lead has been much

used in Holland, to correct the more offensive expressed oils, and make them resemble oil of olives or almonds. The fumes of lead are equally deleterious; plumbers and painters exposed to them, have a pallid countenance, and often experience their baneful effects.

Lead sometimes produces only a slow lingering indisposition, which at length terminates, fatally; and it is probable some of the slow poisons used by the ancients, and by the Italians, were composed of some preparation of this metal. Lead is often taken into the body in considerable quantity dissolved in water, which has run through leaden pipes, or stood in cisterns of that metal. A portion of the cylinder of the pump* may be dissolved in it, particularly where the water is hard, and contains neutral salts, which are occasionally present in it: lead is soluble even in distilled water, if it contains air;† but sulphuric acid has no action on it. Perry, cider, wines, or rum, made in leaden vessels, dissolve a large quantity of it and occasion the disease called the colic of Poictou and Devonshire, and the dry belly ache of the West Indies. Some of our older cookery-books direct lead to be put into wines, to prevent their turning sour; but as its pernicious effects in the present age are better known than formerly, it is to be hoped this is now never practised. Wafers are often coloured with red lead, and if picked up by birds prove poisonous to them. A case occurred lately in London, where, in a family con-

* See Fothergill on the Poison of Lead, and Dr. Lambe.

† Henry's Elements of Chemistry.

sisting of nine persons, four died from using sugar kept in a cask which had formerly contained white lead, and not been properly cleaned.

Effects.

The effects produced by lead are, colic, tremors, languor, asthma, palsy, convulsion, and death.

Remedies.

The remedies to be applied are, opium, when there is much pain or spasm, the warm bath, laxatives, as castor oil, salts, purgative clysters, &c. and gentle emetics; when the body is open, the hydrosulphuret of potash or ammonia, or the sulphuret of potash, should be given diluted with barley-water or water gruel; or common flowers of sulphur may be taken in any agreeable form, followed by as large a quantity of a diluted alkali as the stomach can bear. According to the observations of Dr. Heberden, the poison of lead seems to affect the nerves, yet is seldom or never found to impair the understanding, or make the patient delirious; it is certain, that cats become delirious by swallowing it.* On opening the body of a person who has died from taking this metal, no morbid appearances whatever are discovered which can be supposed to arise from its action.†

* See Percival's Essays.

† Transact. of Med. Society of London.

Tests.

The best tests of lead are sulphuretted hydrogen and alkaline hydrosulphurets : these are very delicate tests, and, added to liquor containing lead, give a blackish precipitate. Sulphuret of ammonia, or potash produced a similar effect. Dr. Lambe, however, has discovered lead in water by other methods of operating where these have failed.* Dr. Hahnman's test for discovering lead in wines is a very good one ; it consists in putting into a phial sixteen grains of sulphuret of lime, prepared in the dry way, and twenty grains of acidulous tartrite of potash or cream of tartar ; the phial is to be filled with distilled water and shaken for ten minutes, the clear liquor decanted and kept in a well stopped-bottle for use : this, when fresh prepared, gives a dark brown coloured precipitate if lead is present. If, on the addition of a solution of the sulphate of soda, to suspected wines, a precipitate occurs, we may conclude they contain lead ; but the most satisfactory method where the precipitate is in sufficient quantity, is, to collect and submit it to the action of heat, in a crucible, or by means of a blow-pipe, when it will be reduced to its metallic state.†

* See his Researches into the properties of Spring Water. [Preparations of Lead dissolved in water can be precipitated either by Seltzer water which forms a white carbonate of lead or by chromat of potash, which forms a yellow chromat of Lead. Chromat of potash also turns white lead yellow, It produces also a dense white precipitate with sulphuric acid or glaubers, or epsom salt. T. C.]

† Moisten the dry suspected powder with oil, and form it into a round mass the size of a pea, make a hollow in a piece of charcoal ; put the substance into it : cover it with charcoal dust, and cautiously apply the flame of a candle by means of a blow pipe. T. C.

COPPER.

The preparations of this metal, most commonly used, are the subacetite, or verdigris ; the rust, or green oxide ; the sulphate, or blue vitriol ; and the ammoniate of copper. Their effects, though different, are when improperly taken, not less deleterious than those of lead, yet, when judiciously prescribed, they are valuable, both as external and internal remedies. The metal itself, when swallowed, is poisonous ; and several persons have died from swallowing a button or a halfpenny. When received internally in considerable quantities, it produces thirst, pain in the stomach and sides, restlessness sometimes a rash on the surface of the body,* frequent and small pulse, violent purging, vomiting and retching, hiccup, delerium, fainting, convulsions, inflammation of the stomach and death. The nitrated copper is more violent in its action than any other preparation of this metal. Copper is seldom wilfully administered as a poison, as its taste is so styptic and disagreeable, that, unless mixed with some savoury viand, or its stronger salts given in the form of pills, it could scarcely be swallowed in large quantities : there are many instances of persons having taken it in their food ; and that which happened

* See Percival's Essay's.

many years ago at Salt Hill is still well remembered. The poisonous fish caught in the West Indies are supposed to derive this quality from copper obtained from the ore of that metal existing in the banks on which they feed. It does not kill so speedily as arsenic or corrosive sublimate. Pickles, and other vegetables are sometimes prepared in copper vessels, to give them a fine green colour. Cider, wines, vinegar, &c. are often impregnated with this metal by running through brass cocks. The acetate of copper, or verdigris, is the form in which it is most commonly received into the body.

Remedies.

When this poison has been taken, if it does not produce speedy vomiting (which a very small quantity in any state generally will,) twenty grains of sulphate of zinc, or white vitriol, should be given immediately in warm water, and as a quantity of diluents drank as milk, linseed-tea, &c. as the stomach will contain.

Calcined magnesia in considerable doses, a diluted alkaline salt, as potash or ammonia, mixed with water gruel, &c. should be administered. Mutton suet, dissolved in gruel, being often more easily procured than oil, and less nauseous and more inviscating, should be taken in large quantities. It may also be thrown up in the form of clyster. In case the best remedies can-

not be procured, which often happens, a quantity of* soap, pearl-ashes, chalk, or common wood ashes, strained through linen, may be dissolved in water and taken: the same may be administered in form of clyster. When halfpence or buttons have been swallowed, large doses of castor-oil should be given, and all acids carefully avoided.†

Sugar and syrups are now found to be the best antidotes to verdigris.

Appearances on Dissection.

When the body of a person who has been poisoned by copper is submitted to dissection, inflammation will sometimes be observed in the brain: but this is not an universal effect. The stomach and intestines will be found inflamed and corroded, and the same appearance exhibited as is produced by other acrid poisons.

Tests.

If it be a liquor that is suspected to contain copper, the addition of a solution of pure ammonia, in quantity more than sufficient to saturate the acid, will strike a beautiful blue colour. Infusion of nutgalls precipitates it of a green colour, afterwards becomes red. If the quantity contained in the fluid be very small, it may

* Lives of Sulphur. τ. c.

† If they do not come away on the first exhibition of a strong cathartic, wait for about three days, and then repeat the dose. τ. c.

be concentrated by evaporation. If made dishes are suspected to contain this metal, a part should be mixed with pure water and well agitated, and the water decanted off, and treated in the same manner; but the test most to be relied upon, is a piece of well-polished iron, as the blade of a knife, immersed for a short time in the liquid, which, if copper be present, will receive a cupreous crust.*

ARSENIC.

The sale of arsenic is restricted in France, and should be subject to similar prescription in this country. The different forms in which this metal is found in the shops, are those of white oxide, orpiment, and realgar: the two latter are combinations of the metal with sulphur. In whatever form it is taken into the body, it is extremely deleterious. The white oxide is most commonly employed as a poison: it is a brittle substance, easily reducible to a powder. It is not very soluble in water, which, at the ordinary temperature, takes up only one eighteenth; but according to La Grange, it is soluble in one twenty-fourth of cold water and one fifteenth of hot.

Arsenic, in solution, is frequently prescribed by physicians for the cure of diseases, with manifest advantages, as intermittent fevers, periodical head ache,

* The liquid should be slightly acidulated for this purpose: A solution of copper is precipitated of a green colour by Fowler's mineral solution (arseniat of potash). Chromat of potash turns sulphate of copper of an orange brown. .T C.

cancers, leprous diseases, &c. and has often proved serviceable when every other medicine has failed. It has lately been considered a specific against the effects of the bites of venomous snakes in the East Indies.* In the solid state it is seldom administered medicinally, as a very small quantity is productive of dangerous consequences. It is a quick poison to plants, and has generally been considered poisonous to all animals; but according to Dr. Par, a horse will take a drachm without injury, and his coat and condition be improved by it.† It occasions a sense of heat in the tongue and throat, nausea, and sickness, followed in about half an hour by violent vomiting and purging of watery viscid matter, sometimes of blood, generally pain in the stomach and bowels, hiccup, spasms, thirst, cold sweats, extreme coldness of the whole body, particularly the extremities, fainting and death. Delerium, or loss of reason, is seldom a consequence of it; and the unfortunate person is conscious till a few moments before the termination of his existence. After some time, these symptoms cease, the abdomen becomes tender to the touch, the pulse imperceptible; and with the sensation of faintness, exhaustion, and tendency to sleep, which may continue many hours, he expires: these symptoms took place in a case I attended, where a teaspoonful of allum and arsenic had been taken, in the proportions of one third of the former to two of the latter, which by the negligence of

* See Med. Chirug. Transact. vol. ii.

† See Med. Dictionary. [Vide ante on Poisons, my experiments with Dr. Nancrede, on a dog. p. 126. T. C.]

a druggist's servant, had been sold for magnesia. If the patient recovers, he is often affected with epileptic fits for some time afterwards.

There are on record, cases where nausea and faintness, followed by speedy dissolution, have been the only symptoms; others, where only vomiting and purging* have been observed; and where there are no proofs or suspicion of arsenic having been taken, it would be very difficult to distinguish the case from cholera morbus.

These are the general symptoms produced by arsenic, but they are by no means uniform; and even although they should all take place, a medical man is not authorised to declare, that death has been occasioned by poison, unless he can actually discover it in the body, or among the matter ejected, which should always be carefully examined. Arsenic applied externally to sores, or bleeding wounds, in form of ointment, will occasion death.† A paste made of arsenic is sometimes used by the French surgeons for the cure of cancers and obstinate sores. One of them mentions an instance of its application proving fatal; the day after it was applied, the patient complained of cholic and severe vomiting, and in two days died in painful convulsions;‡ the body quickly putrefied; the internal coat of the stomach, and great part of the intestinal canal, were inflamed, and marked with dark spots.

* Case by Dr. Yellowly, in the 5th vol. of Edin. Med. and Surg. Journal; and M. Renault, sur les Contre-poisons.

† See review of Dr. Jaeger's Thesis de Effectibus Arsenici, in the 7th vol. Edin. Med. Journal, and 5th vol. London Journal.

‡ Roux, Nouveaux Elemens de Médecine opératoire, tome i. p. 62.

The quantity of arsenic necessary to destroy life, depends upon the form in which it is given, and the state of the health of the person to whom it is administered. A larger quantity may be given chemically dissolved, than in the solid state; but a very few grains are in general sufficient to have a fatal effect. It is probable that some persons are able to bear a much larger quantity than others. That the stomach will sustain greater injury than is generally believed, is proved by the fact of a man having lived, several days after swallowing a quantity of melted lead; and, from experiments made on dogs and fowls by Mr. Spry, it appears that, after having melted lead, to the quantity of several ounces, poured down their throats, they survived, and did not appear to be materially injured. The result of the above experiments, though almost incredible, is confirmed by Dr. Huxham.*

The time that is required to kill by arsenic, also varies. I have seen a case, which terminated fatally in four hours; and another, where the person lived seventy-eight hours after taking it. Arsenic does not act chemically, as a caustic, either on living or dead animal matter.

Remedies.

There is no antidote, properly so called, which can be at all depended upon, to counteract the effects of

* See Philosophical Transactions, vol. xlix.

arsenic. The sulphuret of potash was first recommended about thirty years ago, by M. Navier, physician to the King of France, and has been frequently employed; but it is a very doubtful remedy. It has no action on arsenic in the solid form, in which it is generally taken; and though frequently recommended, is probably inefficacious; it has at least been found so by M. Renault, a French physician, who has made many experiments on this subject. Water, impregnated with sulphurated hydrogen,* is a better remedy, and when the arsenic is taken in solution, or in form of arsenious acid, has considerable efficacy.* Alkaline salts are still more efficacious; they act upon the oxide of arsenic much more speedily than acids. An ounce of subcarbonate of potash, or prepared kali, dissolved in three or four quarts of warm water or water gruel, should be speedily taken, or the liquor potassæ or armoniæ, mixed with gruel or linseed-tea, should be taken in the same manner.† These, as chemical remedies, are the most likely to afford relief; if they cannot be had, sulphur, wood-ashes, or soap dissolved in water, or lime-water, should be taken in large quantities. Acids have generally been considered as injurious; but they are recommended by M. Sage as useful against mineral poisons, though they have very little action on arsenic, except when assisted by heat.§

* Or a solution of Heparsulphuris, that is sulphuret of potash or Soda. T. C.

† Vide Nouvelles Expériences sur les Contre-poisons de l'Arсениc, par M. Renault.

‡ But alkalies do not destroy the action of arsenic, on the body: witness Fowler's, drop. Hence, emetics should be given in half an hour after the alkaline solution. T. C.

§ M. Sage is dubious authority. T. C.

M. Bertrand, a French physician, recommends charcoal as a powerful antidote to the poisonous effects of arsenic and oxymuriate of mercury, or corrosive sublimate. He gave six grains of these poisons to several dogs, mixed with charcoal, and no injury was sustained by them; to others he gave the poison alone, and when violent vomiting, and other deleterious effects had taken place, he arrested their progress by giving charcoal, suspended in some fluid.* He himself even swallowed, at one time, four grains of corrosive sublimate, and at another five grains of arsenic, mixed with charcoal, without sustaining any injury.† This, however, is by no means to be depended upon, and its antidotal effects are very doubtful.

The plan of treatment on which we are most to depend, is the administration of those remedies best calculated to remove the poison from the stomach. If vomiting has not taken place, an emetic of sulphate of zinc or copper should be given, and as large a quantity of milk, water, gruel, or other diluents, drank as can be got down. Oil, and mutton suet mixed with gruel or water, have been recommended.‡ Oily substances are however, objected to by M. Sage; and it is the opinion of Fourcroy and Rault, that arsenic, mixed with oil, butter, or fat, will kill sooner than when given in an aqueous vehicle. [It is not likely. T. C.]

* These experiments prove nothing: see my note, p. 126. T. C.

† See Journal de Medecine, Dec. 1813.

‡ As an enveloping substance, solution of gum arabic, or any solution of gums such as Tragacanth, will probably answer better. T. C.

Milk has been supposed, by M. Navier, to have a peculiar efficacy in dissolving arsenic. As the only well founded hope of saving the patient depends on the evacuation of the poison, proper means must be persisted in, till there is reason to believe that this object has been effected. A sponge, attached to a flexible catheter, and introduced into the stomach, would probably bring up a quantity of the arsenic, which adheres to the superabundant mucus lining the stomach. When it appears that the poison has been removed, mild nutritive fluids should be given, and a blister applied to the region of the stomach; and, if the *pulse and other symptoms will admit of it*, blood may be taken from the arm, and the case treated as idiopathic gastritis;* but where the debility is great, it will require the treatment proper for cholera morbus. The body should be kept open by castor-oil and clysters.

Tests.

There are a variety of means of ascertaining the presence of arsenic, some of which may be depended upon, others are uncertain in their results.

1. Hot and fresh-made lime-water, added to a fluid containing arsenic, will precipitate $\frac{1}{30}$ th of a grain of the metal, dissolved in 100 grains of water.†

* See a case in the *Medico-chirurg. Transactions* so treated by Dr. Roget, vol. ii.

† See the review of Dr. Jaeger's Thesis in the *Edin. Med. and Physical Journal*, vol. vii.

2. Water, saturated with sulphuretted hydrogen, formed by the action of diluted muriatic acid on sulphuretted iron* is a delicate test, and produces an orange-yellow precipitate. The same effect is occasioned by the addition of sulphuret of ammonia, or hydrosulphuret of potash.

3. Arsenic, thrown on a burning coal, gives white fumes, and a garlic odour; but if thrown on hot iron, without being mixed with some combustible substance to reduce it to the metallic state, *it will not* give out this odour. This test is not to be depended upon, as phosphorus and zinc emit the same smell.†

4. Arsenic mixed with half its weight of powdered charcoal, moistened with oil, placed between two polished copper plates, bound together with wire, and submitted to a red heat, leaves a white silvery stain on the copper, which will not be removed by rubbing; but this test sometimes fails; and mercury leaves a similar stain, though *not indelible*.

5. Boil a small portion of suspected powder with a dilute solution of potash, in a few ounces of distilled water, in a clean Florence flask, and filter the solution; to which add a few drops of the solution of sulphate of copper: if arsenic is present, it will be strongly manifested by a yellowish green precipitate, which is the pigment called Sheele's green.

6. To a grain of the suspected powder, add the same

* Sulphuretted iron is made by rubbing a roll of sulphur on a piece of iron heated to a *white* heat. T. C.

† Dr. Jaeger's Thesis. [I could never perceive the similarity. T. C.]

quantity of charcoal, and one or two drops of oil* ; put them into a glass tube, hermetically sealed at one end, which end must be coated with pipe-clay and sand, and gently dried : in that end, place the mixture, and close the other loosely with paper ; place the coated end in a chafing-dish of burning charcoal : † if arsenic be present, it will rise, and line the inner surface of the tube with a black brilliant coating ; break the tube, and lay a little of the reduced metal on hot charcoal, and the smell of garlic will be perceived ; or place it between plates of copper, and a white stain will be produced, as in the above mentioned experiments. This is the most decisive, though not a very minute test. [Less than a grain in weight will answer. T. C.]

7. Another test, lately discovered, and extremely delicate, is applied, by adding to the suspected powder a few ounces of distilled water, and boiling it in a flask ; to this when boiled, add a few grains of subcarbonate of potash or soda, agitating it with a glass rod. Touch the surface of this fluid with a stick of dry nitrate of silver or lunar caustic ; if arsenic be present, a beautiful yellow precipitate will instantly appear at the point of contact, and sink to the bottom. ‡

* Having thus done, dry it gradually by a moderate heat, else the vapour from the oil will be apt to obscure the upper part of the glass tube. T. C.

† The glass tube should be about eight inches long and about half or three eighths of an inch wide. T. C.

‡ For excellent observations on this subject, see a paper in the Edinburgh Medical and Surgical Journal, by Dr. Bostock ; vol. ii. of Dr. Henry's Elements of Chemistry : vol. xxxiii. of Philosophical Magazine, by Mr. Hume ; vol. ii. of Med. Chirurg. Transactions, by Dr. Roget.

If, instead of potash or soda, a few drops of a solution of pure ammonia be added, a yellow precipitate is formed, but does not sink so rapidly as when the experiment is made with the other salts. Arsenic, dissolved in milk, is difficult to detect, but, by evaporating it to dryness, and redissolving it in distilled water, its presence may be indicated by the above-mentioned tests.

In all experiments of this kind, distilled water should be employed; and in making trials on suspected substances, it would be advisable to make corresponding trials with arsenic itself, that the comparison may be accurate.

Arsenic does not (as has been recently asserted) blacken a knife, by which it is cut; nor does it when mixed with dough, prevent its rising.* The colour of bile is not changed by admixture with arsenic in solution.†

Dissection.

On examining the bodies of persons who have been destroyed by arsenic, the appearances will not be found uniform, but vary very much in different cases. The body is sometimes swelled and livid, but more frequently natural; swelling is more commonly the effect of vegetable poisons; blotches have been seen on the surface, but this is the effect of re-action, and probably, never the case when death has taken

* See the extraordinary medical evidence in the trial of Eliza Fenning.

† See my paper in the appendix on the tests of arsenic. T. C.

place within a few hours after the poison has been taken; nor is putrefaction hastened or retarded by it, although both accelerated and retarded putrefaction have been enumerated among the proofs of death by arsenic. The vessels of the brain are sometimes found distended with blood. The pharynx and œsophagus are generally in the natural state, but the stomach and intestines are almost always inflamed, abraded, or eroded. The action of the arsenic produces a remarkable secretion of glairy mucus from the mucous membrane of the stomach, to which (if it has been taken in the solid form) small pieces will be found adhering. The inflammation produced on this organ by arsenic, is greater than by any other poison;* it has an ecchymosed appearance, often of a dark red colour, in spots or streaks, somewhat resembling the sides of a boiled lobster. Erosion of the stomach from this cause is seldom seen: but “there are few stomachs,” says Mr. J. Hunter, “which are not at the great end, in some degree, digested after death;” but these instances have occurred almost only in those persons who, while in good health, have died suddenly from accident, apoplexy, hanging, or the like. It is possible a case of this kind might be mistaken for the effect of poison.†

I have been present at the dissection of a woman, who took a quarter of a pound of arsenic in coarse powder, which killed her in four hours; but there was no erosion; nor should erosion alone, if discovered,

* Mr. Brodie's Experiments on the Action of Poisons.

† See Baillie's Morbid Anatomy.

he deemed a proof of poison having been taken : it may be the effect of suppuration. There are several cases on record, where this organ exhibited extensive erosions and ulcerations, when it was certain that they could not be the effect of poison. A case of this kind occurred to me about twelve years ago, and is published, with a drawing, in the thirteenth volume of the London Medical and Physical Journal. The preparation is in the possession of Mr. G. Freer. Dr. Baillie, M. Renault, and others, have recorded similar cases. The latter author mentions a case, where the arsenic was swallowed in large pieces, which produced no other effect than slight syncope on the approach of death. On opening the body, the arsenic was found in the state it was swallowed ; but there was neither inflammation nor erosion of the stomach. The stomach is generally found nearly empty ; its contents consisting only of mucus and extravasated blood, to which the solid arsenic, as before mentioned, is found adhering ; but if the poison has been taken in the fluid state, no evidence of its existence will be found in the stomach ; this must be sought for by chemical tests among the matter ejected by vomiting, which should be always carefully preserved. The blood is usually found fluid in the heart and blood-vessels.* Mortification of the pudenda is said to be an effect peculiar to the action of arsenic : † and Dr. Baillie observes that, in several instances, a mortification

† Brodie's Experiments.

‡ Prestwich on Poisons.

of the rectum has been observed as a consequence of this poison.*

Mr. Brodie in his *Experiments on Animals*, found the inflammation greatest in the stomach and rectum, but has never seen ulceration in either.

MERCURY.

Most of the preparations of mercury are active medicines, and several of them violent poisons, as the *nitrous oxide of mercury*, or red precipitate (Hydrarg. nitrico-oxydum, the *red oxide of mercury* (Hydrarg. oxydirubrum,) and the *oxymuriate of mercury*, or *corrosive sublimate* (Hydrarg. oxymurias,) the last of which is one of the most violent poisons with which we are acquainted: this substance, taken internally, even in very small quantity, produces sickness, severe griping, pain in the stomach and bowels, excessive vomiting and purging of frothy mucus, sometimes of blood, distension of the belly, suppression of urine, heat in the mouth and throat, great thirst, cold sweats, anxiety, universal pains, convulsions, and death.— This preparation of mercury acts instantaneously, corroding and destroying the parts to which it is applied.†

* Morbid Anatomy.

† Monsieur Pouqueville, physician to the French army in Egypt, who was a prisoner at Constantinople in the year 1798, speaks of a man, who had, from habit, enabled his stomach to bear large doses of corrosive sublimate. "This man," says he, "was well known all over Constantinople in the year 1800, by the name of *Suleymen Yeyen*, or *Suleyman the taker of corrosive sublimate*. At the epoch when I was there, he was supposed to be nearly a hundred years old, having lived under the Sultans Achmet. III; Abdul Hamet, and Selim III: he had early in life habituated himself to taking opium; but notwithstanding that he constantly increased the dose, he ceas-

It is poisonous to all animals, but does not act on all with equal violence : from some experiments made by the late Dr. Reeve, of Norwich, it appears that a horse recovered, after having taken an ounce of it, and was not very violently affected, even by that quantity. It has produced bad effects when applied externally, in form of lotion or plaster ; but in the experiments made by Mr. Brodie on animals, he did not find it poisonous when so applied.

The red precipitate, and red oxide of mercury, produce violent purging and vomiting, pains in the stomach and bowels, and other distressing effects.

Remedies.

The antidotes to corrosive sublimate, or either of the other mercurial salts, have usually been considered the same as those mentioned as remedies for the poison of arsenic ; but from the experiment of M. Orfila, a French physician, albumen, or the white of eggs, is the only counter-poison to corrosive sublimate : intimately mixed with it, it decomposes it, forming a triple compound, consisting of albumen, muriatic acid,

ed to feel from it the desired effect, and then tried sublimate, the effects of which he had heard highly spoken of : for thirty-years this old man never ceased to take it daily ; and the quantity he could now bear, exceeded a drachm. It is said, at this epoch he came into the shop of a Jewish apothecary, and asked for a drachm of sublimate, which he swallowed immediately, having first mixed it in a glass of water. The apothecary, terrified, and fearing that he should be accused of poisoning a Turk, immediately shut up his shop, reproaching himself bitterly with what he had done : but his surprise was very great, when, the next day, the Turk came again, and asked for a like dose of sublimate." See M. Pouqueville's Travels, p. 299. See also Mr. Thornton's Travels ; and notes to Lord Byron's Childe Harold's Pilgrimage.

and calomel, which may be taken in considerable doses with impunity.* *Large quantities*, therefore, of whites of eggs, well mixed with water, should be immediately administered in all cases of poison by this salt. Whether or not, on repeated trials, albumen (white of egg) shall be found to be really an *antidote* to corrosive sublimate, its use† will always be proper: in general, more reliance is to be placed on plentiful dilution, by mild and mucilaginous fluids, and the evacuation of the poison by vomiting, than on chemical remedies. [Alkalies are clearly indicated. So is hepar sulphuris, and sulphurated hydrogen. T. C.]

Dissection.

The œsophagus, particularly the lower part, is generally inflamed; the stomach is sometimes eroded, and its villous coat covered with dark-coloured spots, indicating inflammation, which extends to the intestines; it generally contains a small quantity of mucous fluid mixed with blood. The liver is often found inflamed, and in females the uterus is frequently similarly affected.

* In the trials which I have made on dogs with this poison so mixed, I have found, that even a few grains, well rubbed down with albumen, cause violent sickness, and exert considerable activity. I have not tried the œsophagus to prevent the animal from vomiting, as I confess I have no taste for such cruel experiments. [I suspect Mr. Orfila is not in all cases good authority; there are many counterpoisons for sublimate, if given quickly after the poison is taken. If it has time to act, it produces gastritis. T. C.]

† Beat up in milk warm water. T. C.

Tests.

The matter vomited, and the contents of the stomach, should be collected and examined, as is directed for the discovery of arsenic. Corrosive sublimate is white, and may be known by its metallic and peculiarly styptic disagreeable taste;* it is soluble in about twenty times its weight of water.

1. Expose a small quantity of it, without any admixture, in a coated glass tube (as directed for the treatment of arsenic,) to a strong heat; the sublimate will rise to the top of the tube, lining its surface in the form of a shining white coat; if it is in a dissolved state, the solution may be evaporated, and the residuum treated in the same way.

2. To a solution in distilled water, add a small quantity of a dilute solution of subcarbonate of potash, and a copious precipitate of a red orange colour will be formed. The carbonate of soda produces similar effects.†

3. ‡ Sulphuretted water throws down a dark-coloured sediment, which, when dried and strongly heated, is wholly volatilized, without any odour of garlic.†

4. A piece of copper, exposed to the fumes of corro-

* By its solubility in alcohol: and by the red-orange coloured precipitate with chromate of potash. T. C.

† Do not these remarks as well as numbers 6 and 7, point out potash and soda in carbonate, or in sulphuret, as decided remedies? T. C.

‡ Henry's Elements of Experimental Chemistry.

sive sublimate, becomes whitened ; and if rubbed with the hand, acquires a silvery hue.

5. *Nitrate of tin is a very delicate test : one drop only, produces an immediate and copious dark-brown precipitation.

6. If to a very dilute solution of carbonate of ammonia, a few drops of solution of corrosive sublimate in water be added, the whole acquires a milky colour, and a white substance is precipitated, which in a few hours acquires a slate colour.

7. If to a very dilute solution of pure ammonia a few drops of watery solution of corrosive sublimate be added, an instant and copious precipitation takes place, of a white flocculent matter resembling curds, which falls to the bottom.

8. When corrosive sublimate is in very small quantity, it may be detected by placing in the solution a piece of gold clasped with zinc or iron wire, and submitting it to the action of galvanism ; when, after some time, the gold will be whitened by the precipitation of the mercury upon it.†

9. Lime water causes a precipitate of an orange-yellow colour.

10. A solution of corrosive sublimate, even though very weak, instantly tarnishes polished silver immersed in it, and gives it a dull pewter colour, not easily removed.

* This test, Dr. Bostock says, is capable of detecting the three millionth part of a grain in solution. See Edin. Journal, fifth vol.

† See Dr. Bostock's paper in the fifth vol. of the Edin. Med. and Phys. Journal, [and Art. Mercury in Rees's Encyclopedia. T. C.]

11. Human bile, added to a solution of this salt, is said to precipitate it of a reddish yellow colour;* but this is very uncertain, as it frequently affords no precipitate or change of colour, which probably depends on the quantity of the bile. Ox bile gives the solution a dark green colour, and pig's a dirty red.

12. Albumen, or the white of eggs, well mixed with water, is a delicate test. A small quantity added to a solution of this salt causes an immediate milky turbidness; and a copious white flocculent precipitate gradually falls to the bottom, which by chemical analysis is found to consist of submuriate of mercury and animal matter. The experiment should be made with *cold water*, as albumen is coagulated by heat.

The nitrous oxide of mercury, or red precipitate, and the red oxide, are not very soluble in water, and may be known by their bright shining red colour.

ANTIMONY.

Most of the preparations of antimony act very powerfully on the human body, and, when given in large doses, produce violent vomiting and purging.

The *muriate*, commonly called *butter of antimony*, is a strong escharotic.

Tartarised antimony, taken in large doses, sometimes occasions death, and appears to act as a direct sedative.

I was sometime since called to a child who had taken a large dose of it, in whom no vomiting had ta-

* Orfila, *Traite des Poisons*, tom. i. p. 54.

ken place ; he lay in a state of insensibility, the extremities were cold, and the pulse languid and almost imperceptible ; but by taking some strong brandy and water, these effects were removed, violent vomiting succeeded, and the child recovered. Tartar emetic inserted into a wound produces the same effects as arsenic.*

In the only case of poisoning by tartar emetic which I have seen, the person was affected with violent convulsions, which returned at intervals for several weeks after recovery from the immediate effects of the poison.

Remedies.

Decoction of oak-bark, of cinchona, or strong tea, and other astringents, are supposed by M. Orfila to counteract the effects of tartar emetic ; but the chief dependence is to be placed on mucilaginous and diluent drinks,† and speedily removing the poison from the stomach ; when that is done, opium and blisters might be serviceable.

Test.

The tincture of galls is the most delicate test of the presence of tartarised antimony, with which it affords a copious curdy precipitate of a dirty yellow colour.

* See Mr. Brodie's Experiments.

† With common potash or soda, in the proportion of about ten grains to a pint of weak solution of gum arabic or linseed tea, given warm. T. C.

The *nitrate of silver*, though the strongest caustic we possess, is often used with great advantage as a collyrium, in a largely diluted state, and has been given internally in doses of one quarter of a grain in cases of dropsy, epilepsy, and angina pectoris; if taken in larger quantity, it excites vomiting and purging, heat in the mouth, throat, and stomach, which are injured and corroded by it: it speedily decomposes and destroys animal substances, and stains them of an indelible black colour.

I believe there is no case recorded of a person having been killed by it, though solutions of it have been accidentally taken; in which case, *common salt* dissolved in water is the best remedy.

The *carbonate* of barytes is a violent corrosive poison. In Lancashire and Cumberland, where it is found, it is employed to destroy vermin.

The *muriate* of barytes, though frequently used in medicine,* is poisonous. If given in large doses, these earths produce symptoms similar to those occasioned by arsenic, but not so violent.

The *remedies* for these poisons are the same as have been recommended for arsenic; but the sulphates of soda and magnesia are considered their chief antidotes.

Tests.

The carbonate of barytes is tasteless, and nearly insoluble in water; it may be discovered by dissol-

* For scrophula: but it does not preserve its character. T. C.

ving a portion of it in muriatic acid, and pouring some of the solution into distilled water, to which, on the addition of a few drops of sulphuric acid, a copious *white* precipitate will fall, which is *insoluble*.

The *muriate*, or any other barytic salt, may be discovered by the same test, which will give a similar precipitate.

The *muriate of tin*, taken internally, excites violent vomiting, great depression, and death, without convulsions.

Its antidote is milk, which it speedily coagulates; and by chemical combination with it, the poison is rendered inert.

On *dissection*, the stomach is found to be corrugated and indurated, and has been compared to tanned skin, but its colour is not altered.

There are some other metallic salts, as those of gold, bismuth, &c. which are poisonous; but as it is not probable that they will ever be the subject of judicial inquiry, I shall not speak of them here.

Phosphorus dissolved in oil is an active poison; it corrodes the stomach, and causes exquisite torture.*

Hair cut very fine, and pounded *glass*, are supposed, by the irritation they occasion, to be capable of exciting inflammation in the stomach and bowels; but, from some late experiments on animals, they have not been found to produce this effect. In such cases, the remedies are, fat, oily and mucilaginous drinks, &c. and gentle laxatives. If inflammation has taken place,

* Sweet oil in large quantities with emetics seems to be the appropriate remedy. T. C.

bleeding, blistering, and other remedies adapted to the cure of idiopathic inflammation, should be resorted to.

[*Nitre* is sometimes given in mistake for cathartic salts: it produces torpor, numbness, and a pricking sensation in the extremities. The remedy is a glass of brandy, then warm water. T. C.]

MINERAL ACIDS.

The *mineral acids* are much used in medicine, and not unfrequently taken by mistake in an undiluted state, particularly by children.

They are so strong and caustic, that, unless forcibly poured down the throat, or swallowed in the rapid manner in which we take a nauseous medicine, it is not probable that they could be introduced into the stomach in large quantity, except by a person willing to destroy himself. When mineral acids are taken in large doses, they occasion instant and most violent pains in the mouth, throat, and stomach, accompanied with great agitation and excessive vomiting of a yellow matter; purging soon follows, attended with painful tenesmus, colic, and strangury; the surface of the body is cold, and covered with moisture; the thirst is urgent, the pulse imperceptible, but the faculties are not impaired.

These symptoms, like those succeeding the exhibition of arsenic, are not uniform, instances being recorded, of persons having died without experiencing any

violent pain, whose stomachs after death have been found completely eroded.

Death is often a speedy, but never a sudden consequence of these poisons. If the unfortunate person does not soon fall a sacrifice to their violent action, his future life is generally miserable; frequent vomiting, emaciation, excessive costiveness, fetid salivation, exfoliation of the membrane lining the mouth, œsophagus, and stomach, universal pains and premature old age, hurry him to an early grave. These are the effects produced by the nitric acid;* those occasioned by other strong mineral acids are nearly the same.—The nitric acid is frequently taken as a poison in France, by those who are driven to commit suicide.

Remedies.

The bad effects which arise from this class of poisons are to be prevented by neutralizing them, through the agency of chemical substances;† weakening them by plentiful dilution, and defending the parts from their action by sheathing and mucilaginous fluids.

The first is to be effected by pouring into the stomach as quickly as possible (for, on the early and almost instant administration of anti-acids, the only probability of recovery depends,) large quantities of dissolved soap, magnesia, or chalk, mixed with water, and diluted alkalies.‡

* Vide *Traité de l'Empoisonnement par l'Acide Nitrique*, par A. E. Tartra. Paris.

† Such as the alkalies, magnesia, whiting or chalk. T. C.

‡ Vide M. Fourcroy, *Système*, vol. i.

The patient should be made to drink plentifully of diluent and demulcent liquids, as linseed tea, gruel, and particularly *milk*. Injections of the same kind should be frequently administered, and all irritating and stimulating substances carefully avoided.

When the acid is neutralized or discharged, a blister on the stomach would probably be productive of benefit.

Dissection.

When a person dies from the effects of mineral acids, a short time after having taken them, the external parts of the body are, on examination, found in a natural state; but, if any has fallen on the skin, the epidermis will be destroyed, the membrane lining the mouth and œsophagus is burnt, and hangs loose, and the parts beneath inflamed and blood-shot. The teeth are loose, the stomach is generally swelled and eroded, and its texture so much destroyed, that the finger may be easily pushed through it. It contains a bloody fluid, mixed with froth, and a great deal of air. The sides of the stomach are covered with gangrenous spots, and the pylorus is much contracted.—The larger intestines exhibit nearly the same appearances. The viscera are inflamed and sometimes burnt by the acid, which often escapes through the stomach. The bladder is found empty. When the nitric acid has been taken, the skin, and every part that it has touched, is stained of a yellow colour. The teeth are loose and yellow on their crowns; and the air found

in the stomach has a smell resembling that of bitter almonds.*

Tests.

The matter vomited should be collected, filtered, and examined; and if any of the poisonous fluid is left in the phial or vessel from which it has been taken, that should also be subjected to analysis.

Sulphuric acid. If there is reason to suppose that this acid has been taken, filtre a portion of the vomited matter, and add to it a few drops of a solution of barytes; if the smallest portion of the acid be present, a precipitate will fall, which is not soluble in muriatic acid; potash, soda, or chalk added to the acid will cause a considerable effervescence.

The *muriatic acid* may be detected by adding a small quantity of nitrate of silver, or lunar caustic, when a white, flaky precipitate falls, which, on exposure for some time to the light, becomes bluish, and afterwards black.† The nitrate of mercury is also a very delicate test of this acid; and if the smallest quantity be present, a dark-coloured precipitate is deposited.

The *nitric acid* stains all animal substances of a yellow colour; its presence may be ascertained by warming a portion of the suspected fluid, and adding to it some sulphuric acid; if a glass stopper, moistened with a solution of pure ammonia, be held over the

* Tartra.

† Dr. Henry's Elements of Chemistry.

vessel, white clouds will appear rising from the stopper.

AERIAL POISONS.

DEATH occasioned by *carbonic acid gas*, is generally accidental, though a child or drunken person might be wilfully exposed to its action; it is destructive to all animals, though vegetables thrive in it; it is generated largely by burning charcoal and fermenting liquors, and is often produced by nature, and exists in wells, pits, and caves: being heavier than atmospheric air, it is found near the bottom of these places.* Persons sleeping in a room where charcoal is burning, or leaning over vats in which the fermentative process is going on, frequently fall victims to its pernicious effects.

Those who are employed to superintend the burning of lime, often sleep by the side of the kiln; and if the wind happens to change, the carbonic acid gas (which is largely generated by exposing lime to heat) is blown upon, and sometimes destroys them.

This gas produces death, according to Morgagni, Hales, Hoffman, and others, by suffocation, occasioning chilliness, head-ach, sleepiness, giddiness,

* The famous Grotto del Cani, near Naples, is celebrated for the noxious effect which the air lying at its bottom, has upon dogs and other animals, too low to raise their heads above it.

retching, sickness, insensibility, and complete asphyxia. The eyes are often open and staring, the tongue protruded, and the jaws frequently locked upon it; the fists are clenched, and the body convulsed, and apparently in a state of apoplexy. At other times it acts immediately on the nerves and brain, and in a moment arrests the vital functions. Those exposed to the vapours of the fermenting grape, are as instantaneously destroyed, as by the electric shock*.

If during the burning of charcoal, moisture be present, *hydrocarbonous gas* is evolved, which is so peculiarly fatal to life, that Sir Humphry Davy was nearly killed by taking three inspirations of it.

Remedies.

The means of obviating the effects of this gas, are, to remove the body into the open air, dash cold water upon it, and pour through a funnel or flexible catheter, vinegar and water into the stomach†. Air should be blown into the lungs, and the action of breathing imitated: stimulating clysters should be administered, a *small quantity* of blood taken from the arm, and pungent salts applied to the nostrils. Friction with the hand, or warm flannels, is of great service; if these fail, the hot bath should be tried, oxygen gas blown into the lungs, and electric or galvanic shocks passed through the chest. Tobacco, either in

* Dr. Percival on the Poison of Lead.

† Dr. Percival.

form of smoke or infusion, ought on no account to be used. The body should never be left while there is any hope, and hope should not be speedily abandoned. I have seen persons recover after lying in an insensible state several days. During the progress of recovery, the mental powers are greatly impaired, and the body is sometimes slightly paralysed. We are informed by Dr. Guthrie, that in Russia, and other cold climates, where these accidents are common, the body is carried into the open air, and rubbed with snow with the best effects. Fever is apt to supervene on recovery. Pits, wells, deep vaults, &c. should not be entered immediately when they are opened; it is good precaution first to let down a lighted torch or candle; for, where these will not burn, animal life cannot be long sustained.

The *carburetted hydrogen gas* or fire-damp, which is formed, in large quantity, at the bottom of coal-pits, though not properly called a poison, is annually the cause of the death of many of the miners, by unexpected explosion. An apparatus has lately been contrived by Sir Humphry Davy and by Dr. Murray, for preventing these dreadful effects, by gradually consuming the gas*.

Dissection.

The body is sometimes much swelled, and has the appearance of having been strangled†: it is supposed

* See Philosophical Magazine for December, 1815.

† Prestwick on Poisons.

to retain its heat longer than when life has been destroyed by any other means. The ventricles of the brain have in some cases been found a serous fluid, tinged with blood; the lungs collapsed, stuffed with frothy blood, and the abdominal viscera dark coloured and turgid.

The *fumes* arising from many of the metals in a state of fusion, or aerial solution, are extremely pernicious: those from lead occasion asthma, pains in the chest and body, paralysis, &c.

The *fumes of arsenic* cause dryness of the tongue, a sense of suffocation, head-ach, vomiting; and, by long exposure, pulmonary consumption is a frequent consequence. Arsenic, dissolved in hydrogen gas, called arsenitated hydrogen gas, is highly dangerous.

The death of M. Gehlen, the celebrated German chemist, was lately occasioned by repsiring this air which he was preparing for an experiment: he was seized with uninterrupted vomiting, rigors and excessive prostration of strength; these symptoms continued for nine days, when he died; although every effort was made for his relief.

The *fumes arising from mercury* are very deleterious; they occasion salivation, tremor, paralysis, and extreme weakness. Quicksilver being much used in the arts of gilding metals, silvering mirrors, &c. workmen often suffer severely from its pernicious effects, of which frequent instances occur in Birmingham: these effects are probably occasioned by the metal in the state of vapour, and not of oxydation; as by an apparatus, affixed to the chimney of the work-

shop, a considerable portion may be caught in its metallic state, which, as a system of economy, is often practised.

Remedies.

The best means of cure are the frequent repetition of active doses of castor-oil, the use of the warm bath, pure air, and a course of medicines containing sulphur, as the hydrosulphuret of potash or ammonia.

[The concentrated Prussic acid as a poison, is noticed under the section on "Apparent death." T. C.]

WOUNDS AND CONTUSIONS.

SURGEONS are frequently required to pronounce whether certain wounds are, or are not mortal; and, if a wounded person dies, whether his death has been the consequence of those wounds.

Wounds may be properly divided into four classes: first, mortal; secondly, dangerous; thirdly, accidentally mortal; fourthly, certainly not mortal.

The consequences of wounds depend much on the constitution, age, existing diseases, and habits of life of those on whom they are inflicted; for, a wound

which would be fatal to one person, may not be even dangerous to another: they are also more dangerous in some parts of the body than in others. A wound may prove fatal from bad treatment, which might otherwise have been healed, unattended with danger.

It is in some cases difficult to say to what class a wound belongs; for some, which we should suppose to be certainly mortal, often prove otherwise. There have been instances of persons, whose brain has been wounded to a considerable depth, who have recovered: others, shot through the head, have survived. A pauper in Paris, some years ago, used to receive charity in a piece of his skull. Other wounds, which at first sight appear trifling, are occasionally the cause of death. A slight blow may rupture an artery diseased by aneurisms, or burst a vomica in the lungs; or a wound, in the hand or foot, occasion locked jaw.

I shall not specify the wounds that may or may not be deemed mortal; for, as our laws look to the intention with which they were inflicted, rather than their effects, a minute classification of them is not of so much consequence as formerly, when, if the wounded person lived a year and a day, it was not deemed murder; but by the act of the legislature, called the *Ellenborough Act*, wounding, with an intent to kill, is deemed equally criminal, whether death be the result or not. Nor shall I say any thing on the treatment of wounds, for that is the province of surgery; but a barrister should endeavour to discover, whether a wound has been properly treated or not; for, if the patient has died from bad surgery, or want of medical

care, a prisoner may escape by a flaw in the indictment. We should examine wounds carefully, and, if possible, ascertain whether they have been inflicted during life, and been the cause of death; or given afterwards, to conceal the manner in which the deceased has been destroyed. In the reign of Charles II. Sir Edmonsbury Godfrey, who was hanged or strangled, was discovered in a ditch, with his own sword run through his body; but as no blood issued from the wound, which was evidently given after death, an inquiry was instituted, and the means by which he was killed, ascertained; though it is probable that those who suffered for the crime were innocent of it. A wound received during life, will exhibit appearances of inflammations, and cause greater hæmorrhage than one received after death.

A blow, in itself not very violent, may cause death, by its impression on very sensible organs, or, by forcing a person down, cause concussion of the brain. We should be cautious how we conclude, from the appearance of bruises or ecchymosis, that a person has died by the hands of another; they may have been produced by the fall of one who has died of apoplexy, or been struck by lightning; and in some constitutions will be very extensive from a slight cause.

It is necessary to discover by what weapon or instrument a wound has been inflicted; and if the person is dead, or senseless, whether it has been given by himself or by another: if any weapon is found near the deceased, we should ascertain if that could possibly have been the cause of the injury or whether

it has been placed there afterwards. A man was found shot, and his own pistol found lying near him, from which circumstance (and no person having been seen to enter or leave the house of the deceased) it was concluded he had destroyed himself; but, on examining the ball by which he had been killed, it was found to be too large ever to have entered that pistol; in consequence of which discovery, suspicion fell upon the real murderers.

INFANTICIDE.*

NATURE having implanted in the breast of all animals a strong affection for their offspring, and in both sexes of the human species a sympathetic tenderness towards helpless infants, it seems incredible that the crime of child-murder should ever be committed; nor is it often perpetrated without doing violence to the tenderest propensities of our nature, which are stifled by the strong sense of shame and dread of infamy, which an unfortunate woman feels, who is on the eve of becoming the mother of an illegitimate child.

It is the opinion of Dr. Hunter that this crime is not committed near so often as has been supposed.

* On this subject, consult the elaborate dissertation of Dr. J. B. Beck, on Infanticide. New-York 1817, printed by Seymour. T. C.

The laudable wish to preserve her character, frequently induces a woman to conceal her situation, and not being certain how far her pregnancy had advanced, or unacquainted with the symptoms of approaching delivery, she may be seized with pains, which she mistakes for griping in the bowels (which the first pains of labour sometimes greatly resemble,) and going to the privy, be there delivered, either of a dead child, or one which, though born alive, may be killed by falling on the ground, or drowned in the profuse discharges of the mother, who, from fear, pain, or insensibility, is unable to assist it. "In such a case," says the humane Dr. Hunter, "is it to be expected, when it would answer no purpose, that a woman should divulge the secret? Will not the best dispositions of mind urge her to preserve her character? She will, therefore, hide every appearance of what has happened as well as she can, though, if the discovery be made, that conduct will be set down as a proof of her guilt."

It is to be feared, that innocent women have sometimes been victims to vague and inconclusive evidence of their guilt, the ignorance of medical witnesses, or the prejudices of a jury. If linen has been prepared for the reception of the expected infant, it is a fair presumption that the mother did not intend to destroy it, and this circumstance operates strongly in her favour: but, by an act passed in 1803 (commonly called the Ellenborough act,) it is ordained, that "women tried for the murder of bastard children, are to be tried by the same rules of evidence and presumption,

as by law are allowed to take place in other trials for murder : if *acquitted*, and it shall appear on evidence that the prisoner was delivered of a child, which by law would, if born alive, be *bastard*, and that she did by secret burying, or otherwise, endeavour to conceal the birth thereof, thereupon it shall be lawful for such court, before which such prisoner shall have been tried, to adjudge that such person shall be committed to the common goal, or house of correction, for any time not exceeding two years."

This, then, is the punishment for *concealing the birth* of a bastard child, and is the only punishment that ought ever to be inflicted, unless there is a certain and incontrovertible evidence of murder having been committed ; but medical evidence alone can seldom be considered to be of this decisive character.

The above-mentioned act relates only to bastard children ; and a woman who conceals the birth, or privately buries a legitimate child, is not liable to the punishment prescribed by that act.

A medical man should be careful to divest his mind of all prejudice, and not be led to suppose, that because a child is found dead, and the bystanders cry out against the mother, it must necessarily have been murdered. When called upon in a case of this kind, he should make the following enquiries :

When, where, and by what means has the child been brought forth? was the mother standing or reclining?

What persons were present, and what are their

characters, and interests relative to the suspected person?

Was the child abandoned to the cold, famished, or suffocated? was linen prepared for its reception? was the labour difficult? did the fœtus reach its full time? is it perfect? Are there any bruises, punctures, or marks of violence visible on the body of the child? Was there any unusual flooding? In what state is the mother? Was the cord tied on the part of the child? Was the ligature made before or after its death? Does the blood discovered, come from the mother or the child? Are there any swellings or stoppages in the throat or trachea? Has the child died of convulsions, or any other disease? Was the child born alive? Did it ever breathe? Was it capable of living when born? How long did it live after birth? What were the causes of its death? Did they occur before or after birth, or during delivery? Was the placenta healthy?

Observations on the above Questions.

It is possible a woman may bring forth her child in a standing position, and no person being present, it may fall on the ground and be killed, which will account for any bruises which are discovered. A violent contraction of the uterus may have expelled the child whilst the mother was abroad and remote from assistance. Women have brought forth on the night-chair, not aware of their situation.* These instances however are rare in first pregnancies.

* I have heard of several instances. T, C.

It is necessary to enquire the characters of those present, as it is possible that the child may have been strangled, or otherwise destroyed, by a person interested in its death; or marks of violence may have been imprinted on the body after its natural death, by an enemy of its mother.

Though infants may be destroyed by exposure to severe cold, it is probable that this does not happen often, and when it does, the case will scarcely be dubious; nor are they so tender as has been commonly supposed. They are seldom, if ever, famished to death within a few days of their birth, for new-born children require very little nourishment, and it was formerly the custom to keep them some days from the breast: this, however, if suspected, may be ascertained by examining the stomach.

A child may have been drowned in water or in the discharges of the mother (innocent of its death,) or suffocated by thrusting rags or other extraneous substances down its throat. In the first case, the symptoms will be nearly the same as in other cases of drowning,* and will be spoken of in another place: and the latter will be discovered on dissection.

* It is the opinion of the celebrated natural historian Buffon, that it is probable that a new-born child might sustain a privation of air, for a considerable time, without losing its existence. "At least, the possibility of this I once seemingly confirmed, by an experiment on some young dogs. I put a pregnant bitch, just as she was about to litter, into a tub filled with warm water, where, after fastening her in such a manner, that the lower parts were covered with water, she brought forth three puppies, which were accordingly received into a liquid as warm as they had left. After washing them in this water, I removed them, without giving them time to

If linen has been prepared for the reception of the child, we may presume that it was not the intention of the mother to destroy it. It is, however, not uncommon, that a woman is delivered before her time, unprepared for its accommodation, or she may be deceived as to her pregnancy, or mistaken in her reckoning, which is a frequent occurrence. If the labour is difficult, or the presentation unnatural, a child may die during its birth, or immediately after, either from the injury it has received, or from the fatigue and exhaustion it has undergone, during a protracted labour.—Dr. Hunter says, “ a child will commonly breathe as soon as its mouth is born, or protruded from the mother; and in that case may loose its life before the body is born.” It may not have reached its full time; and whether it has or not, is a question not always easy to ascertain, for a child at eight months often closely resembles one at nine; but as a child at eight months

breathe, into a smaller tub filled with warm milk. In this they were kept immersed above half an hour, and when taken out they were all found alive. They began to breathe, and to discharge some moisture by the mouth. Having allowed them to respire for half an hour, I again put them into warm milk, and left them a second half hour; at the expiration of which, two of them were taken out vigorous, and seemingly no wise incommoded, but the third appeared rather in a languishing state. After allowing the other two about an hour to breathe, I put them once more into the warm milk, in which they remained another half hour; whether they swallowed any of this liquor or not is uncertain, but on being taken out they appeared nearly as vigorous as ever. This experiment I never carried farther, but I saw enough to convince me that respiration is less necessary to a new-born, than a grown animal, and that it might be possible, with proper precautions, to keep the foramen ovale from being closed, and thus produce excellent divers, or different kinds of amphibious animals, which might live equally in air or in water.”

generally lives, the question is not of importance, for, if it is much younger, its diminutive size or imperfect formation will be evident: it may, however, though of full growth, be imperfectly formed; the heart, or organs of respiration, may be in an unnatural state, or the urinary passages or anus be imperforated; swellings, or accumulations of mucus, may have closed the trachea, and prevented respiration. Wounds, bruises, and other marks of violence are nearly the same in appearance as in adults; but it should be remembered, that the heads of new-born children are generally swelled after a hard labour. It is possible that a pin, or other sharp instrument may have been thrust in the brain, or heart; it is proper, therefore, that any appearance of puncture should be examined and minutely traced. The state of the mother should be inquired into: if there has been any unnatural flooding, by which it is declared that the child was drowned, or by which she was rendered unable to succour it, or render it the necessary assistance, she will be found pale, weak, and œdematous; the quantity of blood lost should be ascertained, and compared with the discharges usual in parturition. Fainting, convulsions, and delirium, sometimes attend labour, and may take place before it is perfected, which will, of course, render the mother unable to prevent the child from falling, bleeding to death, or being suffocated.

It is very important to ascertain, whether or not the *funis* or *cord* was tied: it should be done immediately the child begins to breathe, and if neglected, it is generally believed that it will bleed to death: if no

ligature be made on the mother's side, it is of no great importance, as but little hæmorrhage will ensue, it has been contended, that it is not necessary, even on the part of the child. Schultzius, professor in the university of Halle, in Saxony, mentions some cases where the cord was not tied, yet no hæmorrhage followed; and it is certain, that many similar cases have occurred, where the vessels have closed by their own contractile power; this question does not, however, appear to have been decided. No ligature is necessary on the *funis* of other animals. If the cord is ruptured instead of being cut, it is not so likely that the child will bleed to death, as the mouths of the vessels will contract.

If, on opening the body of the child, the heart and principal veins contain the usual quantity of blood, we may conclude that its death was not occasioned by hæmorrhage, whether the cord was tied or not. An artful woman may let the child die of hæmorrhage, and then apply the ligature: this may be ascertained by the emptiness of the veins and heart, and the small quantity of blood found on dissection.

These appearances, however, are no proof that the child has been murdered. We may fairly presume, that a very young woman is ignorant of the necessity of a ligature, or she may have swooned, and tied the cord as soon as she was able, though too late to save the life of her infant. Violent hæmorrhage may have taken place from the uterine vessels of the mother *before* the birth of the foetus, which may thereby be exhausted of blood; the vessels of the cord itself are

sometimes burst, and blood found in the uterus.*— The throat and trachea should be examined, as extraneous substances are sometimes thrust into them, or the passages may be stopped by preternatural swellings, adhesions, or collections of mucus. The child may have died of convulsions, epilepsy, or other diseases, the cause of which is not evident. Suddenly bending or turning the neck, sometimes occasions death.† New-born infants are very subject to convulsions, and in children a few months old, they are the frequent consequence of worms, teething, and diseases of the bowels. Introsusception, to which young children are very liable, may be the cause of death, which will be ascertained by dissection.

Whether or not the child was born alive; whether it was alive at the commencement of labour; or whether it ever breathed; are questions of great importance to determine, but of difficult solution.

It may be proper here to give a concise description of the means by which the fœtus is nourished. The circulation of the blood, and the structure of the heart, in the fœtus, is different from the adult, which difference disappears a short time after birth. Not being able to respire, the blood which is conveyed to it through the umbilical cord acquires its oxygen in the lungs of the mother. The cord consists of two arteries and one vein; the latter conveys pure blood from the placenta for the nourishment of the fœtus, and the

* Burns's Principles of Midwifery.

† Mahon.

superabundant part is returned through the arteries to the vessels of the mother.

The usual length of the cord is about two feet, but this frequently varies: when it is too long, it sometimes surrounds the neck of the fœtus, and strangles it. The cord may be knotted, and by that means the circulation through its vessels impeded; this however, is a very rare occurrence; an instance of it is recorded by Smellie.

The presentation of the funis at the commencement of labour, is by no means uncommon; and, being subjected to pressure, the circulation through its cavities is obstructed, and the life of the child destroyed, unless it is speedily assisted.

The fœtus participates in many of the diseases of the mother, and may die unborn, of small-pox, fever, and probably many other complaints. When it dies in the womb before birth, it diminishes in size, loses its sanguineous colour, becomes livid, and putrefaction commences, which is particularly observable about the umbilicus, but does not take place so speedily in the uterus, as out of it.

The premature obliteration of the *foramen ovale* has been supposed to be a frequent cause of the death of the fœtus in utero.

There are many presumptive, but no certain signs that a new born child has breathed. The principal criterion by which this important question has been attempted to be decided, is the floating or sinking of the lungs in water; this, however, is by no means decisive. If the lungs have ever been filled with air,

they are never again entirely free from it, and will swim when thrown into water: it is presumed that, if the child has not breathed, they will sink; but this evidence is not to be depended upon, as putrefaction may have commenced, which, by generating air, will cause them to swim; or a tender mother may have blown into the mouth of her child, with the view of rousing the latent spark of life, and thus have inflated the lungs. Instances have been related, on apparently good authority, of children crying in the womb, which, of course, supposes inspiration to have taken place; and Bohn says he has witnessed an instance of it; but the fact requires better testimony.

The scirrhus, or ulcerated lungs of consumptive persons, and those that have been violently inflated after death,* often sink in water; but healthy lungs, that have been *completely* inflated, always float.—Heister says, he has seen them sink when the child has breathed twenty hours; they may, therefore, be only partially inflated. Haller has observed, that when children had breathed only a short time, their lungs sank in water: one lung sometimes swims, whilst the other sinks. Portal accounts for this, by supposing that air enters the left lung with greater difficulty than the right, owing to the passage to the left lung being somewhat more circuitous than the right; this theory is probable, and seems to have been justified by experiment. It has been supposed impossible to inflate the lungs artificially, till natural respiration has

* Stoll, Ratio Medendi.

taken place : but, though it requires some force, there is no doubt it may be accomplished, if the nostrils are first closed.

The lungs of a fœtus that has never respired may be buoyed in water by the air generated by incipient putrefaction. By some experiments made by Haller and Fabricius, it was proved that lungs, which sank in water, were gradually raised to the surface as putrefaction advanced : but this is not always the case ; as Morgagni, Camper, Zuchmeyer, and others, have found that putrefying lungs sometimes sink. The results, therefore, are not to be considered uniform.— Whole bodies, which sink when drowned, gradually rise to the surface as putrefaction begins ; but when they arrive at a certain state (probably when the solids are sufficiently decayed to let out the air contained in the cavities,) they sink again. When we propose to try if the lungs float in water, we should, as far as possible, ascertain whether or not they are in any degree putrid ; they should be first immersed in the water whole, and afterwards cut into pieces, and thrown in ; we may, perhaps, find that some portions will swim whilst others sink. Putrefaction does not begin so soon in the lungs as in any other part of the body, owing to the firmness of the membranous cells, which constitute the greater part of their substance.

“ If the air which is in them be that of respiration, the air-bubbles will hardly be visible to the naked eye ; but if the air-bubbles be large, or if they run in lines along the fissures, between the component *lobuli* of the

lungs, the air is certainly emphysematous, and not air which had been taken in by breathing.”*

When respiration has taken place, the abdominal viscera are depressed, and the lungs are enlarged; they are also of a brighter pink colour than before they have been in contact with air: but on this criterion we cannot rely.

M. Ploucquet has proposed a method of determining whether or not a child was born alive, by ascertaining the comparative gravity of the lungs: he has found, that when a child has reached its full time, but has not breathed, the weight of the lungs, in proportion to that of the body, is as 1 to 67 or 70; but that, after respiration, the lungs double their weight.

This method of proof must be very fallacious, as the capacity of the thorax, and its proportion to other parts of the body, vary greatly, as every person, who is in the habit of seeing infants, must know.†

We should be careful not to mistake natural and common appearances for marks of violence. The sutures and fontanelle have been mistaken for fractures of the skull; an instance of which occurred a few years ago, and the accused person would probably have fallen a victim to the ignorance and hasty conclusions of the medical evidence, had she not fortunately

* Dr. Hunter.

† Dr. I. B. Beck in his inaugural dissertation on Infanticide, New-York, 1817, which is a valuable collection of facts on the subject, is of a different opinion in this respect from Dr. Melis. He supports Ploucquet's test.— See his dissertation, p. 67. T. C.

been supported by the testimony of a more experienced surgeon.

It is shocking to think how many innocent persons may have been sacrificed by such precipitate and erroneous judgment.

The skull of a young infant is not very easily fractured, as the bones of which it is composed, not being firmly united, yield to pressure. Where fracture is suspected, it should be ascertained by means of the scalpel, and no conclusions drawn on surmise only.

PREGNANCY.

PREGNANCY is sometimes the subject of juridical inquiry: it may either be *pretended* or concealed.

Pregnancy has been pretended from a variety of motives: first, to gratify the wishes of a husband; secondly, with a view of disappointing the legal succession, or keeping possession of property for some months, till its existence is disproved; thirdly, to extort money; fourthly, to delay the execution of punishment. The existence of pregnancy may be ascertained by particular indications, as morning or evening sickness, cessation of the menses, enlargement of the womb and breasts, and, after the fifth month, by the motion of the child, which is frequently strong, and may easily be felt externally by the hand, but this motion is not always perceived; it may also be disco-

vered by the touch : when pregnancy exists, the os uteri will be easily felt, and will be found closed, and to have assumed an annular figure. The enlargement of the abdomen, or even of the womb, are not to be depended upon as certain signs : the first may be occasioned by dropsy, tympanitis, scirrhus of the mesentery, or morbid enlargement of the abdominal viscera. The increased size of the womb may be occasioned by hydatids, or a collection of water in its cavity, or disease of its substance. Dropsy of the ovaria often greatly resembles pregnancy.

Anascarca, or dropsy of the belly, may be distinguished from pregnancy by fluctuation, but not always, as the water may be encysted. When uterogestation really exists, it may generally be ascertained ; but every practitioner knows that, under some circumstances, and particularly where there is much disease, it is impossible to form an accurate opinion : hence, pregnant women have been tapped for the dropsy, and diseased women, not pregnant, have prepared clothes for their expected infant. Milk in the breasts of a woman, who has not lately suckled a child, is, with other concomitant symptoms, a pretty certain indication, though Hebenstreit says he has known a woman, who could bring milk into her breasts by suction, or light and continued rubbing.

Cessation of the menses is not a proof of pregnancy, nor is their flow a certain evidence that a woman has not conceived ; for there are many examples of the continuance of this evacuation for some months after conception.

Pregnancy is often concealed by unmarried women to avoid disgrace, and by those whose husbands have been long absent.

The following indications of conception and of delivery, may be useful. T. C.

[*Conception.*]

[Dr. Denman enumerates not as universal, but as the *usual and general* marks.

1. An areola or *brown* circle round the nipples.
2. Suppression of the menses.
3. Nausea, heart-burn, loathing of food : vomiting in the morning.
4. Feverish heat with debility, emaciation, and costiveness.
5. The eyes enlarged, the mouth wider, the general aspect and features sharper.
6. A greater irritability of temper.
7. Sometimes giddiness of the head, drowsiness, dimness of sight, convulsions, palpitation of the heart, pain in the side.
8. Quickening may happen from the tenth to the twenty-fifth week : usually about the sixteenth after conception.
9. Depravity of appetite : unusual likeings and loathings.
10. Discolouration of the skin, with spots and blotching about the neck and face.

11. As pregnancy advances, there is liability to hæmorrhoids, strangury, fluor albus, pains in the hips, and numbness of the extremities.

12. Erratic pains about the face, ears, and teeth.

13. Varicose veins in the legs, thighs, and abdomen.

14. Anasaruous swellings.

See Denman's Midwifery, 5th edition, 1816, p. 212, et seq.

To the preceding *signs of Conception*, it may be useful to add the following summary from Dr. I. B. Beck's valuable inaugural Dissertation on Infanticide. N. York, 1817.

The practice of causing *abortion* is resorted to by unmarried females, who, through imprudence or misfortune, have become pregnant, to avoid the disgrace which would attach to them from having a living child; and sometimes, it is even employed by married women to obviate a repetition of peculiarly severe labour-pains, which they may have previously suffered. But abortion is not always associated with crime and disgrace; it may arise from causes perfectly natural and altogether beyond the control of the female. The Physician should, therefore, be extremely cautious in his proceedings, even in cases of illegitimate pregnancy, and where the voice of popular prejudice seems to call upon the medical witness merely to confirm its previous, and often false decisions.

Two questions demand the consideration of a physician called to a reputed case of criminal abortion:—
Has the woman had an abortion? By what means

was it brought about? According to the answers given to these inquiries must his testimony be regulated.

Signs of abortion.—In the early months of pregnancy, it is extremely difficult to ascertain whether an abortion has taken place or not. The fœtus has scarcely had time to make those firm attachments which afterwards unite it to the womb; nor has it attained to a sufficient size to effect those general changes in the constitution of the mother; nor those local alterations from the distention of the uterus and abdomen, which are afterwards produced. Its separation is, therefore, unattended by violence, and leaves but faint, if any traces of its previous existence. The hæmorrhage attending it is also of small consequence, as the uterine vessels have not yet sustained any particular enlargement, and therefore, speedily contract.

In abortions at the middle or end of pregnancy, this obscurity does not attend us. The characteristics are then sufficiently evident for our guidance. There is considerable hæmorrhage from the enlarged vessels of the uterus previously to the contraction of the womb;—there is an offensive discharge of blood and mucus from the vagina; distinguished from the menstrual flux by this circumstance, and by its longer continuance: the menses continuing, usually, only three or four days, while the lochia do not cease flowing under seven or eight;—the vagina is considerably dilated, and the os uteri open;—the labia are red, soft, and inflated; the breasts are swollen, and milk flows from them; the areolæ of the nipples are larger and darker

coloured than usual ;—and the abdomen is flaccid, rugous, and pendulous.*

If the abortion ends in the death of the mother, the following appearances will be recognized on dissection ; for it may sometimes be necessary to settle the point after her death, as in cases where another person is accused of having procured it by the administration of medicines, which may have caused not only the death of the child, but also of the mother.

In the early months, no extraordinary appearances are to be detected ; as the foetus was expelled perhaps before the placenta was at all, or very slightly attached to the uterus, so that its separation would leave no visible mark ; and from its smallness, it had caused no distension nor thickening of the uterus. But at a later period, the uterus is found enlarged and thickened—its muscular fibres are more evident, and its blood vessels and lymphatics much augmented in size ;—a rough surface is found where the placenta has been attached ; the cervix uteri is relaxed, and the vagina considerably dilated ;—the ligamenta rotunda are relaxed, and the ligamenta lata nearly effaced, as they furnish the uterus with its external covering. Upon examining the ovaria, if it be done a short time after the ovum has escaped from them, a *corpus luteum* is found, which vanishes, soon after, but leaves a scar for life.

* Vide Zacchæus' Quæst. Med. Leg. Foderé's Med. Leg. Brendelius' Med. Leg. Burns's Midwifery. Males' Med. Jurisprudence, and Dr. Stringham's MS. Notes on Legal Medicine.

Such are the evidences furnished by dissection; [but nothing can be learnt from these marks as to the *cause* of abortion, for the symptoms in natural and unnatural abortion are the same. T. C.]

[The circumstantial evidence, arising from a denial or concealment of pregnancy—from having made no preparation for confinement or delivery—from feigning other maladies, &c. afford of themselves no fair and reasonable conclusions of legal crime; at the very utmost, they amount to no more than room for bare suspicion; and ought not to be admitted in a court of criminal jurisdiction as legal evidence of any thing beyond the direct and naked fact which they prove. They do not appear to me, admissible in the first instance, as proof of alledged crime. T. C.]

The *signs of delivery* as enumerated by Dr. Beck, p. 47, are the following. T. C.]

1. An extraordinary enlargement of the external organs of generation, occasioned by the irritation and distension during labour.

2. A preternatural distention of the vagina, from the same cause.

3. The os uteri, is dilated so as to admit two or more fingers, its shape is nearly circular, and it has a soft and tumid feeling.

4. The flowing of the *lochia*, which are distinguished from the menstrual discharge by their being of a paler colour; having a peculiarly disagreeable smell; and by their duration.

5. An enlargement and hardness of the breasts, accompanied with a secretion of milk.

6. Dark colour of the *areolæ*. Of this sign, Dr. Stringham remarks, "I do not know an instance to invalidate it. It does not take place when milk is secreted from any other cause."* And lastly,

7. The abdomen is prominent, and the integuments flaccid and wrinkled, and marked by whitish lines, called the *lineæ albicantes*. These lines, however, are no evidence of delivery having taken place recently. They sometimes remain, after a first delivery, for life.†

Such is the evidence to be obtained from an examination of the mother. But in cases where the child is not to be found, it is hardly necessary to say how romantic and even criminal it would be in the physician, to give an opinion upon it, which might hazard the life of a human being. Could he attain to certainty concerning her pregnancy and delivery, the very absence of the child might be considered one of the strongest proofs of guilt. But in how many cases is this certainty never to be obtained! So many are the morbid conditions of the body with which they may be confounded, and so indistinct are the signs themselves sometimes, that ingenuity and experience are often baffled, and forced to confess their ignorance.

[*Beck.*]

[1. Whether the child was born alive, should be first examined by means of positive marks, of wound, bruise, puncture, or other violence.

* Dr. Stringham's MS. Notes on Legal Med.

† Farr's Med. Jurisprudence; Foderé's Med. Leg.; Brendelius' Med. Leg.; and Burns's Mid.

2. Circumstantial evidence of violence, by strangling, drowning, smothering: but this can only be admitted, when a foundation has been previously laid, by positive evidence, of violent death or crime actually committed.

3. Evidence of mere omissions of duty on part of the mother, as not tying the umbilical cord, not giving due nourishment, &c. can so readily be explained by the pain and confusion of such a situation, that they afford but very slight presumptions.

4. I (T. C.) agree with Dr. Beck that the floating and the weight of the lungs, are indications of value: therefore I insert his directions on these heads of enquiry.

As to the *floating of the lungs in water*.

1. After having examined the *general shape* of the thorax, and noticed the *position* and *colour* of the lungs in its cavity, they should be taken out, together with the heart. They should then be subjected to a careful inspection, to determine if they are *sound* or *diseased*, or if they are at all affected by *putrefaction*: [in which case they will furnish no satisfactory evidence. T. C.]

2. Particular attention should be paid to the *temperature* of the water, in which the lungs are to be immersed. The reason of this is obvious, when it is recollected, that the specific gravity of water varies with its temperature; thus, for instance, water at 100°, is lighter than water at 60°, and still higher than at 40°.*

* Elements of Natural and Experimental Philosophy, by Tiberius Cavallo, F. R. S. vol. ii. p. 470.

Besides, if the water be too hot, it will have the effect of expanding the lungs, and thus favour their floating, especially when there already exists a slight tendency to putrefaction. If, on the contrary, its temperature be too low, the air cells will be contracted, and much of the air will thus be expelled. The temperature of the water should, therefore, be regulated by that of the surrounding air. Another precaution relative to the water is, that it should not be impregnated with *salt* ;* for in consequence of the greater specific gravity of saline water, a body might float in it which would sink in fresh water.

3. The lungs, together with the heart, should then be placed in the water, and if they both float, it is a proof of complete and effectual respiration.

4. If the lungs sink with the heart, or if the floating is only partial, it is then proper to separate them, and repeat the experiment upon the lungs alone ; observing whether the whole float, or if they sink, whether any part shows a tendency to float ; if so,

5. The two lobes should then be separated, and the experiment repeated upon each, noticing the difference, if any, between them. If only one floats, see if it is the *right* one.†

* Foderé's Med. Leg. tom. iv. p. 470.

† It is a curious fact connected with the history of incipient respiration, that the *right* lung receives air much sooner than the left. M. Portal made several experiments to prove this. In a kitten, which he killed a few minutes after it was born, the *right* lung was of a whitish colour, filled the whole cavity of the chest, and swam in water. The left was of a dark-red colour, in a collapsed state, and sunk in water. He accounts for this interesting phenomenon, by showing that there is a difference in the size and direction

6. If both lobes sink, or float but imperfectly, they should be cut into a number of pieces, taking care not to confound the fragments of one lobe with those of the other; and upon each of these the same experiment should be instituted.

7. While cutting the lungs, it should be marked if there be any crepitation; if the vessels are charged with blood; and if there be any traces of disease.

After having performed these different processes, the conclusion to be drawn from them are evident. If the entire lungs, as well as all the divisions, remain on the surface of the fluid, it is a proof that the infant enjoyed perfect respiration; if only the right lung or its pieces float, the respiration must have been less perfect; if some pieces only float, whilst the greater number sink, it proves that the child lived with pain, or that its lungs were diseased, or that the partial floating was owing to artificial inflation; if all the pieces sink, the inference is decisive, that the child never respired. †

Having thus noticed, at sufficient length, the various circumstances relating to the floating of the lungs, I shall next consider,

of the bronchi leading to the two lobes. Upon examination, he found the right one about one-fourth part thicker, and one-fifth shorter than the left; besides, he found the passage to the right to be more direct, than that to the left.* Whatever may be the method of explaining this peculiarity, it teaches us a practical lesson of the greatest value, which is, not to remain satisfied with an experiment upon one lung only; both should be examined with equal care.

* Medical Commentaries, vol. i. p. 409.

† Foderé's Med. Leg. tom. iv. p. 472.

The test of M. Ploucquet, founded on the absolute weight of the lungs.—From the peculiarity of the vascular system in the fœtus, only a very small portion of the blood goes the round of the pulmonary circulation. As soon as respiration commences, a change is effected, and the whole mass of the blood passes through the lungs, in order to undergo the necessary process of oxygenation. From this, it appears that the fœtal lungs must be considerably inferior in weight, to the same organs after respiration has been established. It is upon this fact that M. Ploucquet founded his celebrated test for determining whether a child had been born *dead* or *alive*, by comparing the weight of the lungs with the weight of the whole body. From the experiments which he made to ascertain their proportional gravity, he drew the general conclusion, that the weight of the lungs previously to respiration, is one seventieth of the weight of the whole body, whilst after that process, it amounts to one thirty-fifth; or in other words, that the blood introduced into the lungs in consequence of respiration, *doubles* their absolute weight.

ABORTION AND CONCEALED BIRTH.

I SHALL treat of *abortion* and *concealed* birth under the same head, as the appearances in both cases are, in many particulars, alike.

Abortion is more common in women than in other animals, in consequence, it has been supposed, of the erect position of their bodies. It may be accidental, and the spontaneous effects of nature—or produced by medicines—or the application of violent means to the body. This crime was practised by the Romans, and is hinted at by Juvenal, Sat. vi. verse 595; and by Ovid, who says—

“ At teneræ faciunt sed non impune puellæ,
Sæpe suos uterò quæ necat ipsa perit;”

and is declaimed against by Tertullian. The Hebrew law punished the perpetration of this offence with heavy exactions, and with death, if the mother lost her life in consequence of it. The Roman Emperor, at a congress held at Constantinople in 692, ordained, that it should be punished with the same rigour as homicide; and severe statutes were enacted against it by the Emperor Antonine, as early as the 161st year of the Christian era. The ancient Greek legislators also prohibited the practice. By the laws of most countries this crime is punished with more severity, if committed after the quickening of the child, than before. The Roman penal code made the same distinction. “Life, in the contemplation of the English law, begins as soon as the child is able to stir in its mother’s womb; for, if a woman be quick with child, and any one, by a potion or otherwise, killeth it in her womb, or beat her, whereby the child dieth in her body, and she is delivered of a dead child, this, though not murder, was, by the ancient law, ho

micide ; but the modern law does not look upon this offence in quite so atrocious a light, but merely a heinous misdemeanor ; but if the child be born alive, and afterwards die in consequence of the potion or beating, it will be murder*.” but since this law was made, another has been framed, which ordains that, “if any person, after the year 1803, shall wilfully and maliciously administer to, or cause to be administered to, or take any medicine, drug, or other substance or thing whatsoever, or use, or cause to be used or employed, any instrument, &c. with intent to procure the miscarriage of any woman, *not being*, or not being proved to be *quick* with child, at the time of committing such thing, or using such means, then, and in every such case, the persons so offending, their counsellors, aiders, and abettors shall be, and are declared guilty of felony, and shall be liable to be fined, imprisoned, set in and upon the pillory, publicly or privately whipped, or transported beyond the seas for any term not exceeding fourteen years.” The same act ordains that administering medicines, drugs, &c. or using means with the *intent* to procure abortion *after quickening*, shall be punishable with death†.

Quickening takes place about the eighteenth week, near which time the motion of the child, but never before : it is probable that the fœtus is animated at the moment of conception, and the crime committed then, is morally as great as at any other period of pregnancy. The law of Scotland considers the fœtus in ute-

* See Blackstone's Commentaries, vol. i. p. 129.

† See Statutes at Large, 43 Geo. III. cap. 28.

ro not quick, as merely “*pars viscerum matris* :” this, however, is a manifest absurdity.

Abortion, or, more properly speaking, premature labour, is sometimes, in cases of malformation of the pelvis, produced by skilful midwives, whereby the life of the mother is saved, and sometimes that of the child. There have been, and still are, different opinions as to the propriety of performing this operation ; but it is surely both legally and morally right, rather to save a certain and valuable life, than risk it for an uncertain one: its propriety is sanctioned by humanity, policy, and justice. A *fœtus*, born before the seventh month, seldom lives ; but Brouzet, quoted by Mahon, says, a child born at the fifth month, and very small, with its eyes shut, could scarcely breathe ; warmth and slight motion only indicated that it lived : it had no evacuations, nor did it cry ; for four months it continued in nearly the same state, and then began to move more strongly, to cry, and have evacuations, take the nipple, and be like other children ; and, when sixteen years old, was stouter than others of its age*.

Spontaneous, or accidental abortion, may be caused by grief, fright, exercise, or peculiarity of constitution. The strongest and the weakest women are most subject to abortion ; the first, because they are the most plethoric ; the latter, because they are the most irritable, and subject to *fluor albus* : it is sometimes occasioned, unintentionally, by bleeding largely, which

* There is another case, recorded by Dr. Rodman in the eleventh volume of the Edinburgh Medical Journal.

frequently makes a women miscarry. A diseased state of the uterus or placenta, or of the child itself, may have the same effect; the fœtus may have the small-pox, dropsy, and probably many other diseases, in the uterus. Women sometimes miscarry from sympathy: if a pregnant woman sees another in labour, her pains sometimes come on, and she is prematurely delivered*.

Abortion may be procured by violent means, as blows on the abdomen, stimulating the uterus into action, or causing inflammation or profuse hæmorrhage, or by the introduction of sharp instruments into the uterus itself,* by means of which, the membranes are ruptured; and if the operator is unskilful, the head of the child is so much wounded as to occasion its death: the mother, also, generally falls a sacrifice, as this crime is usually committed by ignorant people, who, directing the instrument improperly, wound the uterus.

Certain medicines taken into the stomach, will also frequently cause abortion; these are drastic purges, strong emetics, and that class of medicines called *emmenagogues*. [Promoters of menstruation. T.C.]

Electricity will also have the same effect. There is, however, no drug which will produce miscarriage in women not predisposed to it, without acting violently on their system, and probably endangering their lives. Some will bear the full action of these drugs, and bring forth their burden in due time, whilst others have so strong a tendency to abortion, that it is impos-

* Dr. Clarke's Lectures.

† The "acupingere" of the ancients. T. C.

sible to prevent it, even with the utmost care. When abortion takes place in the early months of pregnancy, it is with difficulty discovered after death by dissection; for the traces it leaves are small: neither the uterus nor the abdomen are much distended, and hæmorrhage proceeding from small vessels is seldom very profuse; but, if it takes place in the middle, or towards the latter end of pregnancy, it may be known by the following signs: if the woman survives, the breasts will generally be found to contain milk, are distended or flaccid; the areolæ of the nipples are larger and darker coloured than usual, and the hæmorrhage (coming from large vessels) will be considerable; a fetid discharge, mixed with clots or mucus, is observed to issue from the vagina, which is sufficiently dilated to admit the hand; the os uteri is open, and inclining downwards, and the skin of the abdomen pendulous, wrinkled and flaccid; the labia soft, red and inflated, and a few hours after delivery, pains are felt about the uterus.

The linen should be examined, as there is after abortion or hæmorrhage, (lochia) which is generally paler in colour, more in quantity, and continues longer than the menstrual flux, and leaves the body in a languid, relaxed state, which is not a consequence of the menses. In some strong women these effects are so slight, that their strength does not appear to be diminished, and the parts recover their tone in a very short time. These appearances, however, are not always to be relied upon as evidence; they may arise from external

violence ; and the flaccid state of the skin of the abdomen may be the consequence of dropsy.

Dissection.

If a woman dies in consequence of delivery or miscarriage, in addition to the appearances just mentioned, the uterus will be found thicker and more capacious than is usual when it has not been impregnated; the traces of the adhesion of the placenta to its unequal internal surface, may be distinguished; its neck will be relaxed, and the vagina considerably dilated: these circumstances are more or less apparent, according to the advanced state of the pregnancy, and are the same, whether the abortion has happened spontaneously or has been procured by violent means. It may be supposed that the distention of the uterus might arise from hydatids,* or moles, and the inequality of its internal surface occasioned by their attachment; the relaxation may also have been the consequence of flooding. The appendages of the uterus should be examined, and particularly the ovaria. The ligamenta rotunda are relaxed, and the ligamenta lata are nearly effaced during gestation, as they furnish the uterus with part of its external covering.† But the most certain proof has been supposed to be derived from the examination of the ovaria, where, during

* See a remarkable trial at Lancaster, in Sept. 1808, for the supposed murder of Miss Burns, and the pamphlets which it gave rise to.

† Fyfe's Anatomy.

gestation, and a short time after delivery, a granulous substance will be found, called *corpus luteum*, which vanishes soon after parturition, but leaves a scar for life. Dr. Hooper, however, says, that these marks sometimes exist in virgins; and Dr. Denman thinks they are found in salacious women, who have never been impregnated.

Moles, or disorganized masses of flesh, have been discharged from the uterus, without either embryo or umbilical cord*, during the growth of which, all the symptoms of pregnancy have been experienced. This is, probably, always the effect of impregnation; and were it to occur to an unmarried female, who is suspected of having delivered herself privately, and destroyed her child, her character would be materially affected, but probably her life not endangered; as, by the English law, it is necessary that the body of the child be found before the coroner can hold an inquest. In a case of this kind the placental mark would be discovered after death, which, though no evidence that an organized fœtus has been expelled, may be considered a proof of conception.

It is of consequence to ascertain whether abortion or premature labour has taken place accidentally, or been produced by violent means: if it has been occasioned by blows, or the introduction of sharp instruments into the uterus, unless skilfully performed, the bodies of the woman and child will be found punctured and lacerated: if by taking improper drugs, em-

* See Mr. Lemon's case in the eleventh volume of the Edinburgh Medical Journal.

ploying large bleedings, or other means, which are known to procure abortion, we must depend on circumstantial evidence: this, however, is the province of a jury; but, as laxative medicines and small bleedings are often used with great advantage during pregnancy (though they sometimes occasion abortion), we should be careful how we conclude that it has been caused intentionally.

Miscarriages sometimes arise from a diseased state of the placenta and umbilical cord. Grief and other depressing passions, under which a woman, who is conscious that she is about to give birth to a bastard child, may be presumed to labour, may also be the cause of abortion.

PRETENDED DELIVERY

HAS sometimes been practised, to impose unlawful heirs on families, to displace the lawful ones, or to gratify the desires of a husband who wishes for children; it is to be discovered by the means mentioned under the head of Abortion, and by the evidence of those who pretend to have been present at the birth. An extraordinary circumstance of this kind happened to a surgeon of this town not long since. Being called to a pretended labour, a dead child was presented to him, but there was no placenta: he proceeded immediately to examine the woman, and found the *os tincæ*

in its natural state, nearly closed, and the vagina so much contracted, as not to admit the hand. Astonished at this appearance, he went to consult a medical friend; but before any farther steps were taken, it was discovered that he had been imposed upon. The woman, in fact, had never been pregnant, and the dead child was the borrowed offspring of another: she was induced to practise the artifice, to appease the wrath of her husband, who frequently reproached her for her sterility.

RETARDED DELIVERY.

Aristotle and Pliny suppose a woman may go longer than nine months, but that other animals more regularly observe the natural period. Haller is of the same opinion, and refers to cases where women have gone thirteen or fourteen months. Hippocrates says, pregnancy cannot go beyond the tenth month. Modern physicians entertain different opinions on this subject. It is probable, that a woman never carries her child in the womb many days longer than nine months, but it is well known that extra-uterine gestation may continue for years. It is the opinion of some eminent physicians, that in consequence of pulmonary consumption, or a waste of the body, by which the nutriment of the fœtus is diminished, the birth of a

child may be delayed, and that the same effect may be occasioned by grief: but these causes more commonly produce premature labour.

A want of activity in the male semen, when the father is very old or weakened by disease, has been supposed to have the same effect.* The old government of France allowed ten months. A decision was given in favour of a widow in that country, who pretended she had been with child one year and three days; but her veracity was by most sensible people greatly doubted. In another case (which, for the honour of that country, happened long since,) a child was deemed legitimate, though born of a woman who had been four years separated from her husband, and its generation was attributed to a dream, or the force of the imagination.†

By the laws of most countries, children are deemed legitimate, though born at a longer period than nine months after the death or departure of the husband: the law of England does not prescribe any particular time; there is, however, on record, a case, in which a child born forty weeks and nine days after the death of its father, was adjudged to be legitimate; the mother had been turned out of doors, and abused by her father-in-law, and the physicians declared that by ill usage, grief, and want of nutriment, the birth might be postponed:‡ this decision was given, although

* Without any reason: see also the extract hereafter from a report of Cuvier on M. Tessier's Experiments on Gestation. T. C.

† See Mahon de la Medecine Legale.

‡ Burn's Justice, article Bastards; also Hargrave's State Trials.

the woman was of acknowledged bad character. By the law of Scotland, “a child born after the tenth month, is accounted a bastard.*”

[This question is so important with respect to the doctrine of Inheritance, that I think it right to present fuller information, both of the law and the philosophy of the question. The English law is so much the same with our own, that I shall state it at length.

The following is lord Coke’s note (*f*) to Section 188 of Littleton, being in p. 123, b. of Coke upon Littleton.

(*f*) “It was found by verdict, that *Henry*, the sonne of *Beatrice*, which was the wife of *Robert Radwell*, deceased, was born *per undecim dies post ultimum tempus legitimum mulieribus constitutum*. And thereupon it was adjudged, *quod dictus Henricus dici non debet filius prædicti Roberti secundum legem et consuetudinem Angliæ constitut’*. Now *legitimum tempus* in that case appointed by law at the furthest is nine months, or forty weeks; but she may be delivered before that time; which judgment I thought good to mention. And this agreeth with that in *Esdras*: † *Vade et interroga pregnantem, si quando impleverit novem menses suos, adhuc poterit matrix ejus retinere partum in semetipsa? Et dixi, Non potest, domine.*”

On this Section, Hargrave and Butler’s edition contains the following remarks. Notes 190 and 190.*

* Erskine’s Institutes of the Law of Scotland.

(*f*) Trin. 18. E. 1. rot. 61. Bedf. coram rege. (Cro. Jam. 541. 1. Roll. Abr. 536. Godb. 281. Palm. 9.)

† 4. Esdras 4. 41. Vide Panciroll. Nova Reporta, page 485, &c.

• Lord Hale, in a note on a passage about legitimacy, in fol. 8. a. gives a fuller extract of this case from the record than is here expressed. His words are these: Trin. 18. E. 1. Coram rege, rot. 13. Bedford, et M. 22. 28. E. 1. rot. 2. *In assise by John Radwell against Henry son of Beatrice, who was wife of Robert Radwell, quia compertum est, quod dictus Henricus fuit natus per 11 dies post 40 septimanas, quod tempus est usitatum mulieribus pariendi, ex quo prædictus Robertus non habuit accessum ad prædictam Beatricem per unum mensem ante mortem suam, præsumitur dictum Henricum esse bastardum, ideo judgment for the plaintiff.* Hal. MSS.—If this state of the case is correct, lord Coke's is erroneous in several particulars of consequence. 1. He is short in not expressing that the record mentions *forty weeks*, and so leaving it to be deemed an *inference* of his own, as which it hath been accordingly treated. 2. He exceeds the record, by representing it to style *that time the latest* for a woman's going with child, when the record only calls it the *usual* period. 3. He wholly omits the husband's having had *no access to the wife for one month before his death*; a fact very material, it being very easy to allow *eleven days* after the *usual* time, but requiring a strong case to warrant extending such liberality to nearly *six weeks*. 4. The word *præsumitur*, which lord Coke passes over, is of importance; for it indicates, that, notwithstanding the great excess of time, it was conceived to create only a *presumption* for the bastardy; and consequently, if very cogent circumstances to account for the protract-

legitimacy. So far we had advanced, when, on looking into Rolle's Abridgment, we found the same ancient case of Radwell more at large than either in lord Coke or lord Hale. But Rolle agrees with the former, as well in respect to the record's not mentioning the *forty weeks*, as to its stating the birth to be eleven days after the *latest time in law for a woman's going with child*; and as from Rolle's particularity he seems to have most minutely attended to the record, his authority, till the whole record appears, seems most decisive. However, the two last particulars, in which lord Coke differs from lord Hale, still remain, to which Rolle adds these further circumstances: that the *husband languished of a fever a long time before his death*; that on the taking of an inquisition afterwards in the court of a lord, of whom he held lands by knight's service, *the wife swore she was not pregnant*, and to prove it uncovered herself in open court; and that, in consequence of all this, the lord received a *collateral* relation as heir. The words describing the wife's exposure of her person are remarkable; for the record states, that she, being interrogated, *juramento asserebat, se non esse prægnantem; et, ut hoc omnibus manifeste liqueret, vestes suas ad tunicam exuebat, et in plena curia sic se videri permisit*. 1. Ro. Abr. 356. pl. 3. and 18 E. 1. rot. 13. in B. R. there cited. It reflects great discredit on the lord's court, which permitted such a gross indecency; and still more on the king's judges, who suffered it to be recorded as one of the grounds for a verdict before them. How laudably contrariant is the proceeding on

the writ *de ventre inspiciendo*. This remedy for the heir against the pretence of pregnancy, so well known to be of earlier date than the reign of Edward the first, as it was framed in the times of Bracton, Britton, and Fleta, delicately requires the widow to be inspected by a jury *of her own sex*; and though in subsequent times the sheriff was ordered to summon a jury composed both of men and women, yet still the *search* was to be made by the latter only. Bract. 69. a. Brit. 165. b. Flet. lib. 1. c. 15. Reg. Br. Orig. 227. a. What harsh ideas of the times might we be led to adopt, if the early introduction of the writ *de ventre inspiciendo* did not demonstrate that the unseemly record we are observing upon was a *singularity*, and so many other testimonies of a more advanced refinement in judicial proceedings did not concur to rescue the age of our English Justinian from the suspicion of a *general practice* of such barbarism. Let us then suppose the record to be as it is in Rolle; which is the more probable to be the truth, because a contemporary judge, who reports its having been *produced* on a trial of legitimacy, represents it much in the same way. Cro. Jam. 541. But still it will not warrant lord Coke's inferring from it, that *forty weeks* constitute the latest time our law allows for a woman's going with child. On the contrary, no particular time being mentioned, what period was meant, must be found out through some other *medium*; and as the record states *other* unfavourable circumstances besides the excess of time, and that the *jury presumed* against the child's being the issue of the deceased husband, it seems fair to

suppose, that the law was understood not to be so strict in the time alluded to, whatever that time might be, as indiscriminately to condemn as illegitimate all children not born within it, but rather to consider every excess, unless very extraordinary indeed, as only raising a presumption against them. This construction is clearly most consistent with the terms of the record in question. In the next note we shall attempt to satisfy the reader that the rule resulting from it is most conformable to other precedents and authorities, as well as to the reason of the thing. After the case of Radwell from the record of E. 1. lord Hale gives the four following cases :—Rot. Parl. 9. E. 2. m. 4. Gilbert de Clare comes Clouc. obiit 30 Junii 7 E. 2. in parlamento tent. quindena Hil. 9 E. 2. *the sisters and coheirs pray livery. Matilda, quæ fuit uxor comitis, pretends to be big by the earl, which was accordingly found per inquisitionem. The coheirs reply, that, si comitissa prægnans esset, tantum tempus elapsum est, ut secundum cursum pariendi non potest dici imprægnari a comite. Yet they could not obtain livery till Pasch. 10 E. 2. but the question hung in deliberation.*—Note 18 R. 2. *where a woman in such a case, immediately after the death of the first husband, took a second husband, and had issue born forty weeks and eleven days after the death of the first husband, and it was held to be the issue of the second husband.*—M. 17. Jac. B. R. *Alsop and Stacey. Andrews dies of the plague. His wife, who was a lewd woman, is delivered of a child forty weeks and ten days after the death of the husband. Yet the child was adjudged le-*

gitimate and heir to Andrews, for partus protest protrahi ten days ex accidente.—M. 4. Car. in Cur. Ward, and afterwards P. 5. Car. B. R. *Thecar marries a lewd woman, but she doth not cohabit with him, and is suspected of incontinency with Duncomb; Thecar dies; Duncomb within three weeks after the death of Thecar marries her; two hundred and eighty-one days and sixteen hours after his death she is delivered of a son. Here it was agreed, 1. If she had not married Duncomb, without question the issue should not be a bastard, but should be adjudged the son of Thecar. 2. No averment shall be received that Thecar did not cohabit with his wife. 3. Though it is possible that the son might be begotten after the husband's death, yet, being a question of fact, it was tried by a jury, and the son was found to be the issue of Thecar.*

Hal. MSS.—Lord Hale's case of E. 2. appears very extraordinary, the time from 30 June, 7 E. 2. when the earl of Gloucester died, to the *quindene* of Hilary, or 29 Jan. 9 E. 2. when the livery to his sister was further postponed in parliament, being *within one day of a year and seven months*; which is a much later date for the delivery of a live child than the most liberal in their calculations have hitherto assigned. However, on reading the printed copy of the original record, in the rolls of parliament lately published, we find lord Hale's note quite accurate. See Rot. Parl. v. 1. p. 353. As to the case of R. 2. it confirms the doubt we have elsewhere stated of the opinion, that, if a widow marries again, and has a child within nine months after the death of the first husband, the child may choose

his father ; and is an authority for deciding according to the proof of the woman's condition when her first husband died. Ante fo. 8. a. note 7. Terms of the Law, first edit. tit. *Bastard*, and Cowel, Inst. lib. 1. t. 9. Lord Hale's two other cases are reported in several books, Alsop and Stacey being in Cro. Jam. 541. Godb. 281. Palm. 9. 1 Ro. Abr. 356. and Thecar's in Cro. Jam. 685. Winch. 71. Litt. Rep. 177."

"If our law was really as strict in point of time as is here represented, it would not sufficiently conform to the course of nature. The physicians, it is true, generally call *nine* months, each being of thirty days, the *usual* period for a woman's going with child. But then they allow that, as a delivery may be accelerated by accidental causes, so as it is frequently protracted, not only for *ten days* beyond the nine months, but to the end of the *tenth* month, and sometimes for a considerably longer time. See Zacch. Quæst. Medico-legal. lib. 1. tit. 2. Justice, therefore, requires, that, in the case of posthumous children, an excess of the usual time should not operate further than by raising a proportional *presumption* against the legitimacy. The Roman law was very liberal in this respect ; for the *decemviri* allowed that a child may be born in the tenth month ; and though a law of the Digest excludes the eleventh, yet the emperor Adrian, after consulting with the philosophers and physicians, decreed even for this, where the mother was of good and chaste manners. See Dig. 1. 4. 12. Paul. Sentent. lib. 4. t. 9. s. 5. Nov. 39. c. 2. t. 17. with Gothofred's learned notes on those two texts of the Roman law. Cod. lib.

6. t. 29. leg. 2. Aul. Gell. lib. 3. cap. 16. Huber. Prælect. in Dig. lib. 1. tit. 6. A like liberal discretion probably prevails in most countries in Europe; for an instance of which we appeal to a writer of great authority, who reports a decision by a majority of judges in the supreme court of Friesland, by which a child was admitted to the succession, though not born till three hundred and thirty-three days from the day of the husband's death, which period wants only three days of *twelve lunar* months. Sand. Decis. lib. 4. tit. 8. Definit. 10. Nor will our own law, notwithstanding what lord Coke advances, if the authorities are duly collected and considered, be found deficient on this interesting subject. Indeed there is a passage in Britton, which gives countenance to lord Coke's limitation of forty weeks; for this writer excludes from the inheritance posthumous children not born within forty weeks from the husband's death. Britt. 166. a. However, even this writer seems to extend in some degree beyond the forty weeks; unless he meant to make the wife's conception exactly of equal date with the husband's death, which surely is not a very reasonable construction. But without dwelling upon such a nicety, it is sufficient that the principle of the few other authorities in our books are against so rigid a rule. Bracton is very cautious, illegitimatizing only the issue born so long after the husband's death as to create an improbability of its being his child, without naming any fixed period. Bract. lib. 5. fo. 417. b.—As to the determined cases, the only authorities of this sort we meet with are enumerated in the preceding

annotation; and these, duly weighed, will not be found, it is apprehended, to warrant lord Coke's conclusion. In Radwell's case, the finding against the issue is expressed to have been grounded merely on *presumption*; and besides, if we construe the record properly, the presumption arose from proof of the husband's non-access to the wife for a month before his death. The case of 9 E. 2. is an instance of allowing so much time beyond forty-weeks, that it seems too strong to have much weight; but so far as it can claim any, it counts against lord Coke.—The case of 18 Rich. 2. at first seems full for lord Coke's rule, the child, though born only *eleven* days beyond the *forty weeks*, having been declared not the issue of the deceased husband. But when it is further considered, there will be found nothing to prove a *positive general* rule; for it was very special, the widow having married a second husband the day after the death of the first, so that the question was not of legitimacy, but merely to which husband the issue belonged. One of the two only remaining cases considerably extends the time beyond the forty weeks; for in *Alsop* and *Stacey*, the first of them, the issue was found legitimate, notwithstanding the lapse of forty weeks and *ten days*, and the lewd character of the wife; and even as to *Thecar's* case, which is the other of them, the issue having been born two hundred and eighty-two days, there was an excess of the forty weeks, though but a trifling one. The precedents, therefore, so far from corroborating lord Coke's limitation of the *ultimum tempus pariendi*, do, upon the

whole, rather tend to show that it hath been the practice in our courts to consider forty weeks merely as the more *usual* time, and consequently not to decline exercising a discretion of allowing a longer space, where the opinion of physicians or the circumstances of the case have so required. In the course of our inquiries into the subject of this note, we were curious to know the general sentiments of that eminent anatomist, Dr. Hunter, on three interesting questions. These were, what is the *usual* period for a woman's going with child, what is the *earliest* time for a child's being born alive, and what the *latest*? The answer, which he obligingly returned through a friend, we have liberty to publish; and it was expressed in the words following. 1. *The usual period is nine calendar months; but there is very commonly a difference of one, two or three weeks.* 2. *A child may be born alive at any time from three months; but we see none born with powers of coming to manhood, or of being reared, before seven calendar months, or near that time. At six months it cannot be.* 3. *I have known a woman bear a living child, in a perfectly natural way, fourteen days later than nine calendar months, and believe two women to have been delivered of a child alive, in a natural way, above ten calendar months from the hour of conception."*

[The French Law on the subject, is laid down as follows, in the code Napoleon on paternity and filiation, chap. 1. of title 7. T. C.]

Translated from the Paris Stereotype Edition, 1813,
of the Code Napoleon, Liv. 1. Titre vii. page 57.

Of the filiation of Children born in Wedlock.

312. "An infant, begotten in wedlock, has the husband for its father.

Nevertheless, the husband shall have power to disavow the infant, if he prove that, from the three hundredth to the one hundred and eightieth day preceding the birth of the child, he was prevented, either by absence, or by the effect of some physical accident, from cohabiting with his wife.

313. The husband shall not be permitted to disavow the child, by alledging his natural impotence; nor shall he be allowed to disavow it, on account of adultery, unless the birth of the child be concealed from him; in which case, he shall be admitted to state all the facts proper to prove that he is not the father of the child.

314. An infant born before the one hundred and eightieth day from the time of marriage, cannot be disavowed by the husband, in the following cases:

1. When he had a knowledge of his wife's pregnancy before marriage.

2. When he has assisted in the act of parturition; and the birth has been acknowledged by him.

3. When the infant is declared not to be capable of living.

315. The legitimacy of an infant born three hundred days after the dissolution of the marriage contract, may be contested.

316. In those cases, in which the husband is authorised to call in question the legitimacy of a child; he must do it during the month; if he be at the place where the child is born.

During the two months after his return, if, at the time of birth, he be absent.

During the two months after discovering the fraud, if the birth of the child was concealed from him.

317. If the husband dies before having made his disavowal of the child, and it be still within the time allowed for this purpose, the heirs shall have two months for contesting the legitimacy of the child; counting from the time at which this child shall have taken possession of the husband's property, or from the period when the heirs shall be troubled by the child in this possession.

318. Every extra-judicial act containing the disavowal on the part of the husband or his heirs, shall be void if it be not followed up, during the month prescribed for this purpose, by an action at law directed against the guardian *ad hoc*, given to the child, and in the presence of its mother."

The following extract also bears on the subject.

Extract from a Report of M. Cuvier, cited in the Journal Universel des Sciences Medicales, for March 1818, p. 369 of v. 9.

[“It has long been a problem in Medical Jurisprudence, which has embarrassed Judges as well as Physicians, which codes of law have determined, because it became necessary to determine it, but whereon the law of nature and the laws of men, do not

generally coincide; I mean the duration of pregnancy. So many circumstances, render the moment of conception uncertain, that it is hard to arrive at a conclusion to be depended on.

It has long been proposed to make experiments on animals, for it does not appear that the limits of gestation are more fixed among them, than among females of the human race. *M. Tessier*, has for forty years, been occupied with this question, and has kept a register of the facts he has observed himself, or which have been communicated to him by observers who could be relied on. The latitude that takes place is considerable. Cows, whose period of gestation, is a few days beyond nine months, sometimes do not calve till 10 months and 21 days; at other times they calve at 8 months; the greatest difference amounts to 81 days. Mares commonly go 11 months and a few days; the greatest difference observed among them is 132 days; and the prolongations of the period of gestation are more frequent among them, than among cows. Sheep carry their young five months; they do not vary more than 11 days. The aberrations are on the side of premature births. This latitude diminishes in proportion as the periods of gestation in animals are shorter, but not exactly in that proportion. Bitches bear their young two months; their limits of difference do not exceed four days.— But Rabbits which go with young but one month, have a latitude of eight days. These differences in the time of gestation, do not depend, apparently, either on the age of the male or female parent, on their mode

of living, on the sex of the offspring, but on some interior difference of constitution or disposition which escapes all external observation. M. Tessier is about to publish the results of his observations, in the form of tables; they relate to 577 cows, 447 mares, 912 sheep, 161 rabbits, 25 sows, 8 buffaloes, 4 bitches, and 2 asses, discarding all facts of a suspicious nature." T. C.]

RAPE.

RAPE is considered by the laws of all countries, a crime of a most heinous description, and has in all times been severely punished. The punishment has varied in different ages. In this country, the criminal was formerly adjudged "*amittere oculos quibus virginem concupivit; amittere etiam testiculos qui calorem stupri induxerunt.*" In the early part of the reign of Edward the Third, it was deemed a trespass only, and punished by fine and imprisonment: it was afterwards made a felony, and in the reign of Elizabeth, excluded from benefit of clergy. Aiders and abettors are deemed principals, and amenable as such. By the Roman laws it was regarded as a capital offence, and the effects of the criminal were confiscated. The Mosaic laws punished this crime with death.

The evidence in cases of rape generally rests with the female alone, who is allowed by the laws to be

a competent witness, if she be of good fame—discover the offence soon after commission—and made outcry if it was possible that she could be heard, unless restrained by menaces. By the Scotch law, the complaint must be made in twenty-four hours; in England there is no limited time. It is an accusation difficult to be defended, even though the accused be innocent.

Rape may be attempted; it may be perfected without the consent of the female; or perfected with her consent; or imputed or pretended.

An assault with intent to commit a rape, without having accomplished it, is a heinous misdemeanor, but punishable only as an assault and battery; but if a woman kills him that assaults to ravish her, it is no felony.*

To constitute perfect rape, some degree of penetration and also of emission,† must be proved. If the injured person was a virgin, some injury is usually done to the pudenda, which can only be discovered soon after the commission of the crime. This injury consists in rupture of the hymen, swelling, inflammation, or laceration of the parts, and some discharge of blood: laceration of the perineum is said sometimes to have been occasioned in very young persons.

It is generally agreed, that these effects indicate defloration; but they do not prove rape, as they may occur when the connexion has been with the consent of the

* Hale's Pleas, 37,

† Emission is not considered essential in Pennsylvania: and properly; for it is not of the essence of the crime; and it may happen without being perceived in cases of violence. T. C.

female, or they may have been caused by disease. Dr. Percival mentions a case, where inflammation of the pudenda, and symptoms of defloration, occurred in a child four years old, which caused her death; it was suspected that she was injured by a boy of fourteen, who was accordingly taken into custody: but several other similar cases being received into the hospital soon after, the medical men were induced to change their opinions.

These signs, therefore, must be considered uncertain. The absence of the hymen is no proof of defloration, as this membrane may have been destroyed by disease or acrimonious discharges. Graaf, Pineus, Buffon, and others, even doubt the existence of such membrane, and declare, that by dissection of girls of all ages, they have never been able to discover it. It has been asserted by good authority, that it is not always ruptured in coitu. Ruysch says he was called to a woman who could not be delivered of her child, and on examination found that the hymen was entire, and so strong, that it prevented the descent of the child's head; he divided it with his scissors, and the birth took place. After a hard labour, attended with much inflammation of the parts, a membrane resembling the hymen has been formed by cohesion. The effusion of blood, though required by the Mosaic law as an evidence of virginity, and often believed to be such, certainly is not. Buffon says, "I can with confidence maintain, that when a girl has conversed with a man before puberty, there is no effusion of blood, provided the disproportion of the parts has not

been too great, or the efforts have not been too violent. At full puberty, on the contrary, that effusion often happens even from trifling causes, especially if she is of a full habit, and regular. This sign of virginity is rarely observed in such as are meagre, or subject to the fluor albus; and what evidently proves it to be fallacious, is the frequency of its repetition. In some women, four and even five times has this pretended virginity been renewed in the space of two or three years: this renovation, however, only happens from the fourteenth to the eighteenth year.*

Rape cannot be perfected without the exertion of much violence, unless the woman be subdued by menaces or intoxicated with drugs or spirituous liquors; it is, therefore, proper to examine the state of other parts of the body, and particularly the clothes, where, if the crime has been recently committed, any marks of force that may have been used, will probably be discovered.

If the ravishment be committed on a child under ten years of age, even *with* her consent, it is deemed a rape, and in the eye of the law is equally felonious, as she is supposed to be of insufficient judgment. Sir Matthew Hale is even of opinion, that such profligacy committed on an infant under twelve years, the age of discretion by common law, either

* Buffon's Natural History, chap. 2d.—I need scarcely say, that the marks of newly lost virginity, mentioned by some authors, viz. swelling of the neck, rings round the eyes, the colour of the skin and urine, &c. are absurd, and still more so, the silly story credited by Mahon, of a monk at Prague, who could tell a maid by the smell.

with or without consent, amounts to rape and felony ; but the decisions of the court have generally been founded on the statute of Queen Elizabeth above mentioned. A male infant under the age of fourteen years, is presumed by law incapable of committing a rape, and cannot be found guilty of it ; but there is no doubt it may be committed by boys under this age, without any unnatural precocity.

In cases of *pretended* rape, the proof generally rests more on circumstantial than medical evidence, as the person bringing the charge must be of a bad, abandoned character ; it is, however, felony to force a harlot : there are instances of accusations of this kind, being brought by women, who, to give the appearance of violence having been committed, have used acrid and stimulating substances to produce inflammation : this, however, can seldom deceive a medical man, as the enlarged state of the vagina will sufficiently develope the character of the complainant. Sir Matthew Hale mentions two remarkable instances which occurred within his own observation, of malicious prosecution for this crime.

HANGING AND STRANGULATION.

THE questions which present themselves when a body is found suspended, are, 1st. Whether the person was hanged whilst alive, or after death : 2d. Whe-

ther he hanged himself or was forcibly suspended by another. These questions may sometimes be difficult to determine.

When a person is hanged up alive, the mark of the cord will be evident round the neck, forming a livid, depressed circle. The face, chest, shoulders, arms, and hands, are swelled and livid, and a bloody mucus issues from the mouth and nose : the eyes are red and projecting, the eyelids generally open, the tongue wounded by the convulsive motion of the jaws, and frequently thrust out of the mouth. The shoulders are raised, and ecchymosis is observed upon them, extending upon the breast and down the arms ; the fingers are bent, and the hands nearly closed. The body does not appear so much stretched as when it has expired upon a bed. The cartilages composing the larynx are said to be sometimes broken, and the vertebræ of the neck are often fractured or luxated, or their ligament stretched. Urine and fæces are often involuntarily expelled, and semen sometimes emitted. When the principal indications above mentioned are present, we may conclude that the deceased has been hanged whilst alive. It is possible, that a person who is destroyed by another, may be first strangled and afterwards suspended : if, therefore, two distinct circles formed by a cord or the deeply impressed marks of fingers on the neck, are perceived on the person found hanging, with appearance of resistance having been made, viz. the clothes torn, the hair dishevelled, &c. we may presume he has been hanged by another ;

but if these signs are absent, we should conclude that he has destroyed himself.

In the year 1762, John Calas, an unfortunate old man, was broken upon the wheel at Toulouse, on the supposition of having hanged his son: the young man had for some time appeared melancholy, and was found hanging in his father's house; his linen and clothes were not torn; his hair, which had that day been dressed, was *not dishevelled*; nor did there appear on him any marks of violence. The father was a most respectable man and affectionate parent, and the evidence was greatly in his favour; but being a Protestant, and his son having apostatized from the religion of his family, he fell a sacrifice to the unjust suspicion and prejudice of the populace.

The form and situation of the mark made by the rope, should be ascertained: if it is at the bottom of the neck, it has been supposed that the person has been strangled; for, if suspended, the cord would slip to the superior part of the neck.

Infants are sometimes suffocated between feather beds, or strangled by unnatural parents pressing the trachea with the thumb and finger.

Wounds, effused blood, and marks of violence on the body, are supposed to be unequivocal signs of the deceased having been murdered; but it is possible, that swinging himself off with some violence, with the view of speedily destroying life, the rope may have broken, the body falling to the ground may have been wounded, and the unfortunate person had resolution again to suspend himself. These circumstances.

though they rarely occur, should be taken into consideration, when the life and honour of a suspected person are at stake. Circumstantial evidence will elucidate many facts which may be obscure to the medical observer. The rope should be kept, the situation of the body and surrounding objects accurately observed and noted down. As the medical man is generally among the first called in on these occasions, and his evidence being always required, it is proper that this should be done by him.

It has been supposed by writers on this subject, that when the cord is extremely tight round the neck, it is an evidence of assassination, as the weight of the body will not in general be sufficient to pull it very tight: but this, I think, in a great measure, depends upon the situation of the noose: if placed at the side of the neck, it would be pulled tight by the weight of the body; but if at the back of the neck, it would not.

Death by hanging is generally caused by the pressure of the cord on the trachea producing suffocation; though, in some instances, the vertebræ of the neck are dislocated, particularly by the present method of executing criminals in this country. If a trochar be inserted into the trachea of a dog, and the animal be suspended, during the time usually sufficient to destroy life, he will be found to have sustained no material injury.

We have heard of some unsuccessful attempts of this kind, which have been made to preserve the lives of criminals condemned to suffer the punishment of the law: when the neck is not broken, nor the weight

of the body very great, it is probable that the experiment would be successful.

On opening the body of a person who has been hanged, the appearances resemble those produced by drowning, with the exception of the absence of water in the bronchial cells. The right side of the heart, and the vessels of the lungs, are full of blood, and the lungs themselves do not collapse when the chest is opened. The blood-vessels of the brain are distended, and sometimes ruptured; the tongue is generally wounded; and in all cases a bloody mucus issues from the mouth.

DROWNING.

WHEN a body is found in the water, the following questions present themselves :

First, Was the deceased drowned, or killed by other means, and afterwards thrown into the water. ?

Secondly, If he was drownèd, did he destroy himself, or was he forced into the water by another ?

These questions may sometimes be determined by examining the body. If there are any severe bruises or excoriations on the hands, knees, or other parts, or if the clothes have been recently torn, we may presume that violence has been inflicted, and these marks occasioned by struggling to resist it: but it should be taken into consideration, that the person may have pre-

cipitated himself into the water, and struck against a stone or other hard substance, or been driven against rocks or stakes by the force of the current, and the body been thus wounded.

The presence of frothy mucus in the mouth and nostrils has, from the days of Ambrose Paré to the present time, been considered a proof of the body having been submersed whilst alive, and is always observed in drowned persons. Water in the stomach is not a proof that the deceased was drowned; it is seldom found there: it is, however, generally discovered in the lungs, though in a small quantity, but probably does not enter till animation is nearly extinguished, as the epiglottis, which closes the passage to the lungs, is endued with such extreme irritability, that it closes on the approach of any extraneous matter.—Larrey found water in the bronchiæ of drowned persons, and concludes that it is the cause of death in these cases. When the body is submersed after death, water is never found in the lungs or stomach. De Haen thought that the water flowing into the lungs is the cause of death, and acts by stopping the passage of the blood in the arteries. To disprove this, animals have been submersed in ink, and other coloured fluids, from which experiments it was found that none entered the lungs during drowning. It has been supposed that those who are drowned die apoplectic. Dr. Cullen says, “Water very often does not enter into the lungs, or even in the stomach, in any quantity to do hurt to the system; and in general it is known that, in most cases, no hurt is done to the organiza-

tion of the vital parts ; it is, therefore, probable, that the death which ensues in drowned persons, is owing the stoppage of respiration, and to the ceasing (in consequence) of the circulation of the blood, whereby the body loses its heat, and with that, the activity of the vital principle :* and this is now the generally received opinion, and is sanctioned by the experiments of Dr. Goodwin, from which he concludes that a small quantity of water *usually* passes into the lungs in drowning, which, mixing with the pulmonary mucus, occasions the frothy appearance, but is not sufficient to produce the changes which take place in drowning : “and hence it follows that the water produces all the changes which take place in drowning, *indirectly*, by excluding the atmospheric air from the lungs.” It was formerly thought that if no water was found in the stomach or bronchial cells, death could not have been occasioned by drowning. †

Water is sometimes found in the stomach of drowned persons, and it is probably taken in at the surface when they open their mouths for breath ; and the water which rushes in they are forced to drink, to prevent its falling on the lungs ; but when the head is entirely under water, it is not likely that any can enter the stomach ; for when the breath is stopped, and suffocation *commenced*, I believe a person cannot swallow, and it will not fall into the stomach by its own weight. ‡

* Dr. Cullen's Letter to Lord Cathcart.

† See the Trial of Spencer Cowper, Esq. for murder, Hargrave's State Trials, vol. v.

‡ See the evidence of Sir Hans Sloane, Dr. Garth, and W. Cowper, the anatomist, in the above-mentioned trial.

When the body has been but a very short time in the water, and the speedy application of the proper means fails to restore life, which is not unfrequently the case, it is probable that a larger quantity of water than usual has entered the bronchial cells, and arrested the motion of the lungs.

Blood is often found accumulated in the vessels of the brain, in the jugular veins, the right side of the heart, and in the pulmonary artery; the pulmonary veins, and the left side of the heart being empty; which seems to corroborate the opinion that the true cause of death, by drowning, is the stagnation of the blood, caused by the cessation of respiration.

Even when the body is actually dead, and all hope of resuscitation extinguished, it is sometimes of consequence to ascertain how long it has been in the water—whether in a running stream or stagnant pool—the changes that have taken place by maceration, putrefaction, erosion by fish, &c. It is well known that when dead animal fibre is exposed, for a considerable time, to the action of a current of water, it becomes converted into a fatty substance, resembling spermaceti, called by chemists *adipocire*. The period of time required to effect this change has been the subject of dispute. At the Lent Assises held at Warwick in the year 1805, a cause was tried which is of considerable judicial importance. A gentleman who was insolvent, left his own house with the intention (as was presumed from his recent conduct and conversation) of destroying himself. Five weeks and four days after that period, his body was found float-

ing down a river. The face was disfigured by putrefaction, and the hair separated from the scalp by the slightest pull; but the other parts of the body were firm and white, without any putrefactive appearance. The clothes were unaltered, but the linen was exceedingly rotten. On examining the body, it was found that several parts of it were converted into adipocire.

A commission of bankruptcy having been taken out against the deceased a few days *after* he left home, it became an important question to the interest of his family, to ascertain whether or not he was living at that period. From the changes which the body had sustained, it was presumed that he had drowned himself the day he left home; and, to corroborate this presumption, the evidence of Dr. Gibbs of Bath was required, who, from his experiments on this subject, is better acquainted with it than any other person*. He stated on the trial, that he had procured a small quantity of this fatty substance by immersing the muscular parts of animals in water for a month, and that it requires five or six weeks to make it in any large quantity. Upon this evidence the jury were of opinion that the deceased was not alive at the time the commission was taken out, and the bankruptcy was accordingly superseded.

The appearance of a body that has been drowned is nearly the same as when death has been occasioned by hanging, viz. turgescence of the ves-

* See Experiments by Dr. Gibbs on Adipocire, in the Philosophical Transactions for 1794, Part II. and for 1795.

sels of the brain and eyes, the tongue often wounded, &c.

Insensibility from submersion in water is to be considered as only a suspension of the vital powers, and there are many instances of their resuscitation after the body has been immersed a considerable time. Some, however, who have been only a few minutes under water, cannot be restored even by the immediate application of the proper means. Monsieur d'Egli is said to have reanimated a person who was under water nine hours; there are many incredible stories told on this subject, which I shall not repeat:* the longest period recorded in the Reports of the Humane Society is three quarters of an hour.

Dr. Halley thinks drowning begins in half a minute; this, however, must depend upon the habits of the person. Those who have been accustomed to dive will remain under water much longer than others; and the Indian divers employed in the pearl fisheries in the East Indies are immersed three, four, and in some instances even five minutes, without injury†.

Different methods of restoring suspended animation have been recommended by different writers on the subject.

The body should be carried carefully, with the head a little raised, to the most convenient house, placed in a warm bath, in the sun, or at a proper distance from a fire, and rubbed with hot flannels, flour

* See Kite's Essay on the Means of recovering drowned Persons.

† See Percival's History of Ceylon.

of mustard, or other stimulants : heated bricks wrapped in a cloth, or bottles filled with hot water, should be applied to the hands and feet. Sinapisms, or a hot-water blister, applied to the region of the heart, would, by the stimulus they occasion, probably be of service*. Pungent salts, pepper, or snuff may be rubbed upon the nose. Breathing should be imitated by blowing air gently into the lungs, by the mouth of an other person, or by means of a pair of bellows, if they can be procured, the nozzle of which should be applied to one of the nostrils, the other nostril and the mouth being closed with the hand; and when the lungs are inflated, the chest should be gently pressed to expel the air: this should be repeated for a considerable time, but discontinued immediately there is any appearance of natural breathing. Oxygen gas, collected in a bladder to which a stop-cock is affixed, and blown into the lungs, has been recommended with every probability of success.

Clysters of warm salt and water, or spirits and water, may be injected; but tobacco, either in form of smoke or infusion, should never be used, as it has a narcotic effect, and tends to destroy the irritability of the muscular fibre.

Bleeding has been recommended by physicians of

* To make a hot-water blister, thrust a napkin into a pint cup, so as to fill it, leaving a convex surface, rising a little above the top. Let boiling water be poured on the napkin, till it is thoroughly wetted, then hastily invert it, and hold it about a minute to the part intended to be blistered. I have several times used this when I have wished to produce a speedy blister, and have found it answer the intended purpose.

eminence ; but Mr. John Hunter expressly forbids it, and it is now seldom practised.

When the patient can swallow, small quantities of warm wine, or spirits and water, may be taken ; but till then, nothing should ever be poured down the throat, either by a flexible catheter or otherwise.

Emetics should never be given.

Slight shocks of electricity, or galvanism, passed through the chest, promise to be of great service.

These means should be persisted in for several hours, and till there are evident signs of death, as stiffness of the limbs, dimness of the eyes, &c.

I need scarcely say, that holding the body up by the heels, violently agitating, or rolling it over a barrel, and other methods sometimes practised by the vulgar, are more likely to destroy life than to restore it.

When animation returns, the patient should not be left alone, as some have been lost from want of care, who might otherwise have been saved.

[The following provisions of the French Law (Code Napoleon) are so full of good sense, that I think the reader will be glad to peruse them. T. C.]

From the Paris Stereotype Edition of 1813, chap. 1. liv. iii. des Successions, page 127.

720. "If several persons respectively called to the succession, one after the other, perish in the same event, without it being possible to ascertain which of them perished first ; the presumption of this fact is to be

determined by the circumstances of the occurrence in which they perished; and in the absence of such circumstances, from the power of age, or of sex.

721. If those who perish together, are more or less than 25 years of age, the oldest shall be presumed to have survived the rest.

If, they are all above 60 years of age, the youngest shall be presumed to have survived.

If some have been less than fifteen years, and the others more than sixty, the first shall be presumed to have survived.

722. If those who have perished together, were more than fifteen, and less than sixty, the male is always presumed to have survived, when there is an equality of age, or, if the difference existing do not exceed one year.

If they were of the same sex, that presumption of survivorship which gives an opening to the succession in the order of nature, should be admitted; thus the younger is presumed to have outlived the older."

DANGEROUS INEBRIETY.

A MEDICAL man is sometimes called to a person in a state of excessive intoxication, attended with all the symptoms of apoplexy: it is often difficult to distinguish from which cause they arise, and the only method of making the discovery is by the smell of the

breath, and by ascertaining in what manner the patient has spent the few last hours. Many persons die suddenly from drinking large quantities of spirits, which produce stupor, loss of reason, motion, and sensation; the motion of the heart and lungs is enfeebled and interrupted; the pulse is slow, and often irregular; there is a great determination of blood to the head; and the person either dies apoplectic, or from the sedative effect produced on the nerves of the stomach.

A brisk emetic of sulphate of zinc, or copper, in solution, or tartarised antimony, should be immediately given; and, as the power of swallowing is lost, a flexible catheter may be passed into the stomach, and the medicine by that means poured in. The irritability of the stomach being greatly diminished, the dose should be strong; the liquor in the stomach may be diluted by pouring in vinegar and water, in which any purgative may be dissolved. If these do not act properly, purging clysters may be given. Blood should be taken from the jugular vein, or temporal artery, and the quantity regulated by its effect on the pulse. The head should be washed with cold water, or ether;* and the application of blisters to the head and stomach would probably be attended with benefit.

The body should be placed in an easy reclining posture, and all tight bandages removed. If it is

* Ether is too powerful: plentiful bleeding, purging, and blistering the head, after the application of cold water for half an hour, is generally sufficient. When the patient is about to recover, small doses of laudanum, repeated every two hours, will accelerate the cure. T. C.

cold it should be rubbed with warm flannels, and the lower extremities put into a warm bath.

When the person is recovering, warm gruel, to which some spice is added, may be taken in small quantities.

CIVIL COURTS.

INSANITY.*

INSANITY is such a proteus-like disorder, and exists in such a variety of forms, that it is difficult to give it a precise definition. It may be called a delusion, or an erroneous association of ideas on particular subjects; and under this general character may be comprehended all degrees of aberration of mind, from melancholy hypochondriacism, to the most furious mania. The two principal species into which this disease is divided, are mania and melancholia: the first characterized by uncommon excitement; the latter, by great depression. They are frequently changed from the one to the other, by the casual excitement of some passion. To these may be added, Dementia, or Fatuity, which, though not properly called madness, is often the subject of judicial inquiry, and deprives the unfortunate object of it of the control of his person and property. "From idiocy, madness is readily distinguished. The idiot cannot reason;

* This subject is so important, in commissions of lunacy—in testamentary cases—as a defence to suicide, and to the charge or imputation of crim. s.—in the execution of deeds and contracts, &c.—that I have added an express treatise on this subject. T. C.

the madman reasons falsely. The idiot acts from animal appetency ; he has no will : the madman wills, but his reason being disturbed by his actions, are not suitable to the usual relations of society.”* *Fa-tuity*, instead of being an erroneous association of ideas, consists in a want of them, and a total deficiency of intellectual power. The further subdivision of the species into classes, according to the peculiar hallucination under which the mind labours, is useless, and leads to no variety of treatment.

There are some states of the mind which, though they resemble insanity, cannot be properly so called: these are, extreme absence, and abstraction of thought ; great peculiarity of actions, or opinions ; ungovernable impetuosity of temper, and unreasonable fears and timidity. “ Partial affections of the brain may exist,” says Dr. Ferriar, “ which render the patient liable to imaginary impressions, either of sight or sound, without disordering his judgment or memory: from this peculiar condition of the sensorium, I conceive the best-supported stories of apparitions may be completely accounted for.”†

Sir Matthew Hale says, “ there is a partial insanity and a total insanity : the former is either in respect to things *quoad hoc vel illud insanire*. Some persons that have a competent use of reason in respect to some subjects, are yet under a particular dementia in

* See an Essay on Madness, by Dr. John Johnstone.

† Theory of Apparitions.

respect to some particular discourses, subjects, or applications; or else it is partial in respect of degrees. And this is the condition of very many, especially melancholy persons, who, for the most part, discover their defect in excessive fears and griefs, and yet are not wholly destitute of the use of reason; and this partial insanity seems not to excuse them in the committing of any offence, in its matter capital; for, doubtless, most persons that are felons of themselves and others are under a degree of partial insanity when they commit these offences. *It is very difficult to define the invisible line that divides perfect and partial insanity, but it must rest upon circumstances duly to be weighed and considered, both by the judge and jury, lest on the one side there be a kind of inhumanity towards the defects of human nature, or, on the other side, too great an indulgence given to great crimes.*"

Lord Coke says, "Non compos mentis is of four sorts: first, ideota, which from his nativity, by a perpetual infirmity, is non compos mentis: secondly, he that by sickness, grief, or other accident, wholly loses his memory and understanding: thirdly, a lunatic, that hath sometimes his understanding, and sometimes not; aliquando gaudet lucis intervallis; and, therefore, he is called non compos mentis, so long as he hath not understanding."

"Insanity* is to be considered as it annuls a man's dominion over property; as it involves his contracts and other acts, which otherwise would be binding; and as it takes away his responsibility for crimes.

* Erskine's Speech for Hadfield.

“In cases of atrocity, the relation between the disease and the act should be apparent. When the connection is doubtful, the judgment should certainly be most indulgent, from the great difficulty of diving into the secret sources of a disordered mind ; but still, I think, as a doctrine of law, the delusion and the act should be connected.”

“I cannot allow the protection of insanity to a man, who only exhibits violent passions, and malignant resentments, acting upon real circumstances, who is impelled to evil from no morbid delusions, but who proceeds upon the ordinary perceptions of the mind : I cannot consider such a man as falling within the protection which the law has given, and is bound to give, to those whom it has pleased God, for mysterious causes, to visit with this most afflicting calamity.”

“The attack,” says Mr. Haslam, “is almost imperceptible : some months usually elapse before it becomes the subject of particular notice, and fond relatives are frequently deceived by the hope, that it is only an abatement of excessive vivacity conducing to a prudent reserve, and steadiness of character. A degree of apparent thoughtfulness and inactivity precedes, together with a diminution of the ordinary curiosity concerning that which is passing before them ; and they, therefore, neglect those objects and pursuits which formerly proved sources of delight and instruction. The sensibility appears to be considerably blunted ; they do not bear the same affection towards their parents and relations ; they become unfeeling to kindness, and careless of reproof. If they

read a book, they are unable to give any account of its contents; sometimes, with steadfast eyes, they will dwell for an hour on one page, and then turn over a number in a few minutes. It is very difficult to persuade them to write, which most readily develops their state of mind.”* There are, however, many instances of decided insanity, where the patient can not only write and read, but converse and argue closely and accurately on every subject, except that on which he is insane. Every body knows when a man is stark-mad: it is my object to describe a man in that state of insanity, when a common observer, or even a person accustomed to insane persons, can with difficulty discover that he is not of sound mind. Learned and respectable physicians have themselves been deceived; and, from being unacquainted with the peculiar hallucination of the patient, have pronounced him sane, when it was well known to those acquainted with the subject of his insanity, that he was a proper object for the restraint of a mad-house.

Even the acuteness of Lord Erskine was insufficient (being unacquainted with his peculiar hallucination) to detect the insanity of a lunatic who fancied himself to be the Christ; and he was indebted for the discovery, to the presence of Dr. Sims.†

There is a madness which shows itself in words, and another in actions. A lunatic may be coherent in

* This is the commencement of madness; and for the farther discussion of its gradual advance to decided mania, I refer the reader to Mr. Hallam's excellent book on Madness.

† See Erskine's Speeches, vol. iv.

conversation, but insane in conduct; he may be rational when under the restraint of a mad house; but when released, and at liberty to act according to the impulse of his hallucination, will show, by his conduct, that he is really insane.

Insanity may generally be discovered by a wildness in the eyes, very high or very low spirits, extravagant or inconsistent conversation or action: the eyes are sometimes fixed, for a long time, on one object, and often on vacuity. These first symptoms usually pass unnoticed by inexperienced observers; and it is frequently difficult to convince them that the patient is insane, unless his conversation is absolutely incoherent, or his conduct dangerous. The body is generally costive, and in the night, which is passed with a feverish restlessness, conversation is often held with some supposed companion, with whom the insane person generally quarrels. These symptoms of deranged mind gradually increase, and are followed by decided mania. The debility of mind which is left, after the subsidence of a violent fever, appears rather to resemble ideocy than madness, and is generally removed, as the strength of the patient returns. It is very different from delirium, and succeeds it.

Insanity may arise from various causes, as blows or injuries inflicted on the head* or brain; excessive indulgence of the passions of lust, anger and revenge; intemperance; repelled discharges; fantacism; intense study; mortified pride, and disappointed ambition. Grief and despair, arising from supposed irre-

* This was the cause of Hadfield's madness.

trievable misfortunes, frequently occasion this calamity.*

I believe a frequent cause of madness is suffering the mind to dwell too long on one particular train of thought, whether the subject be real or imaginary.—The ideal lucubrations with which many, particularly young persons, allow their minds to be amused, and stray in the regions of fancy, called castle-building, or day-dreaming, I conceive weakens the mind, and abstracting it from real and useful objects, absorbs its energies in fanciful and futile speculations, which often lead to insanity.

“It may readily be supposed, that a peculiar structure of the brain disposes to madness ; but what that peculiar structure is, has never been demonstrated : it may also be readily presumed, that a peculiar structure of the brain may be generated, as well as of feature and limb.”† “Of all the hereditary diseases, madness is supposed to be the most constant and persevering ; for, even if one generation escape, the taint is presumed to cling to the succeeding branches, till, either by admixture with a purer stock, or by education or management, it is neutralized or drained away.”‡§

An insanity or incapacity of mind, which may be the subject of legal investigation, is occasionally indu-

* The number of insane persons was greatly increased in France by the horrors and misery induced by the revolution.

† Dr. J. Johnstone on Madness.

‡ Ibid.

§ All this is strenuously denied by Mr. George Nesses Hill, in his treatise on Insanity, but I fear the facts are too distinct and numerous to allow us to deny hereditary predisposition. T. C.

ced by bodily diseases. Severe and long-continued epilepsy will so far weaken the mind, as to render a person incapable of right reasoning, and consequently not responsible for his actions. This effect may continue some hours, or even days, after a severe epileptic attack.

It is a false notion, that madmen cannot reason; they often reason with accuracy on many subjects, and carry into execution plans, which require subtlety and long-continued dissimulation to mature:* nay, there are instances of their having composed regular and elegant poetry on the subject of their own infirmity; † but some are in a miserable state of most abject brutality.

Our mild and beneficent laws deem an insane person not accountable for his actions; but it is difficult

* A lunatic having received, or fancied he had received, an injury from his keeper, at the Lunatic Asylum at Manchester, threatened to be revenged, for which he was punished by confinement: he was afterwards a patient in Bethlem Hospital, and gave Mr. Haslam an account of the transaction, of which the following is an abbreviation: "Not liking this situation, I was induced to play the hypoerite: I pretended extreme sorrow for having threatened him, and, by an affectation of repentance, induced him to release me. For several days I paid him great attention, and lent him every assistance: he seemed much pleased with the flattery, and became very friendly in his behaviour towards me. Going one day into the kitchen, where his wife was busied, I saw a knife (this was too great a temptation to be resisted;) I concealed it, and carried it about me. For some time afterwards the same friendly intercourse was maintained between us; but as he was one day unlocking his garden door, I seized the opportunity, and plunged this knife, up to the hilt, in his back."—*Haslam on Insanity.*

† See "Account of the Retreat near York," by Samuel Tuke, who gives a specimen of poetry, addressed to Melancholy, by a patient who, "at the time of its composition, laboured under a considerable degree of active mania."

to determine what is, and what is not, to be considered insanity—

“Such thin partitions do the bounds divide.”

We never so much resemble madmen, as when under the dominion of ungovernable anger ; but crimes committed when the mind is actuated by this passion, subject the perpetrator to the punishment of the law.

It is evidently the opinion of Lord Erskine, that Earl Ferrers (though a strong plea of lunacy was urged in his favour) was instigated to the murder by malignant resentments, and merited the punishment he received.

In my own mind I have no doubt that Bellingham, who shot Mr. Percival, was mad ; and his own account of the transaction warrants that conclusion. I am also of the same opinion respecting Nicholson, who murdered Mr. and Mrs. Bonar at Chiselmurst ; for, it appeared that he was neither instigated by the spirit of revenge, nor the hope of plunder. Several similar atrocities which have lately been committed in this country, are of the same complexion ; but where no insanity is proved, and there has been none previously existing—where the delinquent has acted from “facts and existing circumstances,” I am far from wishing to demand for him the protection which the law gives to insane persons ; its improper extension would become a cloak for crimes, which would ultimately tend to the injury of the community, and the subversion of social order.

Partial insanity, which escapes the observation of the patient's family, is sometimes obvious to strangers. The great difficulty which often exists of discovering this species of the disorder, has led to considerable inconsistency of medical opinion. If patients are aware that they are being questioned for the purpose of proving their insanity, they artfully avoid uttering an absurdity, and have imposed upon the most wary; nay, they sometimes even acknowledge themselves to have been deceived as to the existence of their insanity; but the hallucination soon returns.* It is a common opinion, that maniacs do not suffer from cold; and the manner in which they have been kept in Bethlem, with unglazed windows at all seasons of the year, may have given rise to the opinion: it appears, however, to be erroneous, as they are particularly subject to mortification of the feet, and are always to be found as near the fire as they can get, during the winter season. They sometimes abstain from food for several days, without suffering any apparent injury, and frequently will not eat when any person is present, though, if the food be left, they often devour it when alone. Some eat voraciously.

Excessive enthusiasm sometimes partakes of the character of insanity: of this I shall say nothing, as

* Mr. Matthews, a patient lately confined in Bethlem Hospital, though rational on every other subject, "insists that, in some apartment near London Wall, there is a gang of villains, profoundly skilled in pneumatic chemistry, who work upon him by means of an air-loom, an account of which he is persuaded is to be found in Chambers's Dictionary. The assailing gang consists of seven persons—four men and three women." For a further account of this curious case, see Haslam's *Illustrations of Madness*.

I know not where to draw the line; and if the doctrine is stretched to its utmost limits, who shall escape the imputation of madness on some subject or other?

The prevailing complexion of maniacs is swarthy, with dark or black hair. Out of two hundred and sixty-five, two hundred and five were of this complexion; the remaining sixty were of a fair skin, and light brown, or red-haired.—See Haslam on Insanity.

Maniacs generally sleep but little, and talk much during the night; there is great deficiency of irritability in the stomach and bowels, and large doses of medicine are required to move them.*

A lunatic, though not punishable for criminal offences, is nevertheless compellable in a civil action to give satisfaction for damages. Though he labours under many legal disabilities, he is allowed to act in some things by his committee, and even to sue for a divorce from his wife, by reason of adultery.†

Melancholia is characterized by inactivity of body and mind, inability to attend to the ordinary occupations of life, silence, and a countenance full of anxiety and despair. A person may have perfect possession of reason on every subject, whilst labouring under a considerable degree of melancholy, and suffer-

* Mr. Haslam thinks this notion erroneous; I have, however, seen six grains of tartarised antimony, and large doses of the drastic cathartic medicines taken, without producing any effect: a pint of the strongest infusion of senna, has sometimes given only one or two evacuations.

[This is confirmed by Mr. Hill, in his Treatise on Insanity. T. C.]

† See Courier Newspaper, Jan. 26, 1814, Consistory Court, Doctors' Commons, in the case of Parnel (by his committee) against Parnel.

ing from extreme dejection of spirits, for which he can assign no cause.

A melancholic person may make a will, if it can be proved that he has a "disposing memory, so as to be able to make a disposition of his estate with understanding and reason;" but idiots or insane persons are incapable of devising property.

The range of the human understanding being on a large and comprehensive scale, it is proper to determine what latitude is given to the term idiot. The law defines an "idiot or natural fool to be one who has so little sense, as to be unable to number to twenty, or to tell his age, or to answer any common questions, by which means it may plainly appear that he has not reason to discern what is to his advantage or disadvantage."* "But a man is not an idiot, who has any glimmering of reason, so that he can tell his age, know his parents, or such like common matters."†

Idiotism is most frequently congenital, but sometimes accidental, and may arise from diseased organization of the brain, intense study, intemperance, excessive evacuations, the action of depressing passions, epilepsy, fevers, and other causes occasioning debility. Mania often degenerates into fatuity. The disease arising from some of the above-mentioned causes is sometimes only temporary and curable; but congenital idiotism is beyond the power of medicine, and that consequent to epilepsy is very seldom cured.

A species of fatuity is often the consequence of paralytic affections; and mania occasionally arises from

* Burn's Eccles. Law.

† Fitzh. N. Brev. 233.

the same cause. Idiots have a defective memory, an inarticulate speech, a peculiar expression of countenance, and a drivelling of saliva from the mouth; which latter symptom arises, probably, not from any inordinate secretion of that fluid, but from carelessness in not swallowing it.

When cases of insanity come before courts of justice, the medical practitioner is generally asked :

1. Whether there is a probable chance of recovery ?
2. Whether there has been any lucid interval, and of what duration ?
3. Whether the symptoms are sufficiently mild, to suffer the patient, with propriety, to retain his liberty, and possession of his property ?

4. Whether, in cases of convalescence, the cure is likely to be permanent ?

To determine the probability of recovery, we must take into consideration the nature of the malady; whether it be melancholy, fatuity, or furious madness; its cause and duration, the frequency of its attack, the sex and age of the patient.

“ Patients who are in a furious state, recover in a larger proportion, than those who are depressed and melancholy.”* The alternation of the disease from mania to melancholy, and vice versa, is considered as unfavourable.

Hereditary madness, and that occasioned by fanaticism, is not so soon nor so frequently cured, as that diseased state of the mind which is induced by real

* “ Of one hundred violent cases, sixty-two were discharged well : of the same number of melancholic cases, only twenty-seven.”—Haslam.

misfortunes and difficulties in life, or by debilitating causes.

The protracted duration and frequent recurrence of the disease, diminish the probability of cure; when it has continued upwards of a year, patients at public asylums are put upon the incurable establishment.

Where there is in women an hereditary disposition to madness, it is frequently called into action immediately after parturition. In these cases, the prognosis is always favourable. "In our climate, women are more frequently affected with insanity than men: from whatever cause it may arise, it is considered very unfavourable to recovery, if they should be worse at the period of menstruation, or have their catamenia in very small or immoderate quantities."*

Females recover in larger proportion than males, and their disease is often called into action by peculiarities of their constitution: but when it arises, in either sex, from exciting causes, whether moral or physical, unconnected with peculiarities of sex, the proportion of cures will, probably, be found to be nearly the same.

"Insane persons recover in proportion to their youth;"† but it was the opinion of the late Dr. Willis, that age was of no signification, unless the patient had been afflicted before with the same malady.—Children, and very old persons, are seldom mad; the

* Haslam.

† See a table of ages, and proportionate number of cures, in Haslam's excellent Observations on Madness:

disease most commonly occurs between the ages of thirty and forty, at which period of life we are most exposed to its exciting causes.

A medical man is always asked, whether or not a patient has lucid intervals? By this term is to be understood, not a *remission* of the complaint, but a temporary and total cessation of it, and complete restoration to the perfect enjoyment of reason on every subject. This is a question not very easy to answer, and requires attentive observation and long and repeated examination to determine, by a person acquainted with the subject of the patient's insanity. The occurrence of these intervals of reason is deemed favourable, particularly when they supervene to a night of sound sleep.

It is often difficult to pronounce a convalescent perfectly restored to reason, and fit to be returned to society. It is necessary that he should be able to converse on all subjects rationally; to bear the presence or recital of the exciting causes of his disease, and receive without emotion, the visits of his family and friends. The disease, however, sometimes recurs with all its violence, soon after returning home; and some maniacs, though furious in their own houses, become quiet and tractable when removed.

It is not always necessary to restrain insane persons, or to deprive them of the management of their property. Some who are insane on one subject only, are peaceable, and competent to the proper conduct of their affairs; and instances are not wanting of their having been intrusted in the exercise of their profes-

sion : but this state seldom lasts long, and watchful attention to their actions is always necessary. When the disease has so far advanced, as to be properly called madness, control becomes necessary, and the maniac should be removed from his own house, and those objects to which he has been accustomed.

Confinement, strictly speaking, is never proper, except the conduct of the maniac is furious, or threatens danger to himself or others ; though he should not be allowed to go abroad without being accompanied by a proper attendant.

DISSECTION has thrown but little light on the cause of insanity ; the brain, which always has been supposed to be the seat of his disorder, has seldom evinced those morbid appearances which we should have deemed requisite for the production of such fatal effects.* The skull has sometimes been found thicker, sometimes thinner than usual. The membranes of the brain are occasionally thickened and inflamed, and the vessels distended with blood.

Effusion of coagulable lymph on the surface of the brain, or extravasation of serum in the ventricles, is generally observed. An appearance of air in the vessels of the pia mater has been noticed in several of the dissections recorded by Mr. Haslam.† The medullary substance of the brain, when cut into, seems to contain more blood than usual ; a gritty matter con-

* But the enumeration of appearances on dissection that immediately follow, shows that the brain is really affected morbidly for the most part, in cases of insanity. T. C.

† In the only two dissections of insane persons I have witnessed, the same appearance was observed.

sisting of phosphate of lime, has been found in the pineal gland. The brain is sometimes softer, sometimes harder than usual, possessing a certain degree of firmness and elasticity. The most general appearance which has been observed is a considerable determination of blood to the head, and serous effusion.

In the cure of mania, the remedies should be adapted to the constitution of the patient, the state of the body, and the symptoms and character of the disease.

In plethoric habits, bleeding immediately from the head has been employed with great advantage, both in maniacal and melancholic cases.

Purging is very beneficial, and will sometimes, in the early stages, divert slight attacks of the disease: it in all cases forms an essential part of the plan of cure.

Emetics in the hands of some practitioners have been very serviceable; but the general opinion of medical men is not in their favour. The result of their employment in Bethlem and St. Luke's Hospitals, and in several private establishments, does not justify their frequent or indiscriminate use; they, however, often produce a temporary calm.

Camphor has been employed with advantage in many cases. Dr. Ferriar and Dr. Cox have spoken highly of the benefit they have derived from the employment of large doses of digitalis. Hyoscyamus, hemlock, and other narcotics, have been recommended, but I cannot find much testimony in their favour. Opium has not been productive of permanent benefit. Blisters to the head and neck are occasionally ser-

viceable, but are sometimes supposed to be injurious, from the irritation they occasion; their application to the inside of the legs has often mitigated the violence of the disorder.* Warm bathing is likely to be of great service in this disease; but the cold bath has not afforded any decisive advantage, and is, in some cases, supposed to have caused paralytic affections, which in a short time have supervened on its administration; but I have frequently seen benefit result from washing the head with cold water. The rotatory swing has been suggested by Dr. Cox, as a means of curing maniacal affections, and (notwithstanding the ridicule with which some writers have treated the proposals) has in many cases contributed in a great degree to allay the violence of furious paroxysms.

Respecting the curative means to be employed in this most dreadful of all human calamities, but little has hitherto been attempted. It is to be lamented, that, in general, madhouses have been considered as prisons (some of them, unhappily, worse than prisons) for the safe custody of patients, rather than as hospitals for the treatment of their maniacal disorder. It is the opinion of some, that more is to be expected from the judicious management of lunatics, than from medicine. But as a diseased state of mind often proceeds from corporal irritation, we may, I think, expect much from the proper and *well-timed* administration of medicine, aided by exercise, employment, suitable occupation, and amusement of the mind, removing at the same time all causes of mental and corporeal excitement.

* Haslam on Madness.

In cases of dangerous and furious mania, close confinement, and sometimes coercion, by means proportioned to the violence of the complaint is proper and necessary, but in no others.

Of corporal chastisement I shall say nothing, as I trust the whip is banished from every madhouse in the kingdom. A keeper should on no account be allowed to strike an insane person, or to keep him in restraint longer than is absolutely necessary. There are other more mild and effectual means of punishment, which may be employed when the patient has reason enough to be sensible of their application; when he has not, all chastisement is wanton and unnecessary cruelty, and is better calculated to destroy reason than to restore it.

It is to be hoped, that, in consequence of the late judicial investigation into the state of madhouses in England, their unfortunate tenants will henceforth be treated with greater humanity, and though unhappily deprived of reason, the noblest attribute of man, by the fiat of their Maker, not be degraded below the state of beasts, by the inhuman barbarity of their fellow-creatures.

Fatuity, as I have before mentioned, is seldom curable; when it arises from debilitating causes, exercise, sea-bathing, bark, change of air, and nutritious aliment, are the remedies to be employed for its removal.

PRETENDED DISEASES.

DISEASES are frequently feigned for the purpose of exciting commiseration, or escaping punishment or military duty.

Insanity was feigned by David, Ulysses, and Lucius Brutus, and has been by others in later times.— It may, however, generally be soon detected, as it is difficult, for any length of time, to imitate the manner of a lunatic, and to bear the privation of sleep. An insane person generally sleeps little, and talks much during the night; but a pretender, if he thinks he is not watched, will sleep, and only act his part when he believes his conduct to be observed. There is, moreover, a peculiarity of manner and countenance, belonging to an insane person, which is well known, and not easily counterfeited: it is more common that madmen pretend to be well, than that sane persons feign madness.

Epilepsy is frequently pretended by beggars, to gain admission into, and enjoy the comforts of hospitals, or to excite the commiseration of by-standers.— This disease has been sometimes so well imitated, as to deceive medical men; it may however, be detected by observing the pupils of the eyes, which are dilated during a fit of real epilepsy, and do not contract on the application of light; nor is the patient affected by rubbing volatile alkali, or other ordinary stimulants, on

the nose. The tongue is generally bitten, and the mouth bloody during the attack: the blood may be sucked from the gums; but few pretenders will be hardy enough to bite their tongue severely.

Hysteria being attended with such a variety of symptoms, and appearing in such various shapes, is easily imitated. Dr. Cullen is said to have been deceived by a man, who, pretending to have this disease, was retained as long as suited his convenience in the Edinburgh Infirmary, and afterwards triumphantly acknowledged the deceit. When we have sufficient reason to suppose these diseases to be imitated, keeping the person on low diet, separate from the society of the hospital, and threatening, on the next appearance of the fit, the application of the actual cautery, are the most likely means to discover the fraud. Some pretend that they have no pulsation at the wrist, which deception is occasioned by tying tight ligatures round the arms; others, that they can suspend the action of the heart: that this may be done by some persons, is very probable. Dr. Cleghorn, of Glasgow, mentions in his Lectures, the case of a person, whom he knew, who could feign death, and had so completely the power of suspending, or, at least, moderating the action of the heart, that its pulsation could not be felt: this man, some years afterwards, died suddenly.*

* There are on record instances, where the pulse ceased in either radial artery as long as the person rested on a full inspiration; and others, where the pulse in those arteries was lost for more than a fortnight.—PARRY'S Elements of Physiology.

Ulcers of the legs, of an incurable nature, are often feigned by beggars, and by soldiers, to procure their discharge. These are made by the application of a common blister, or one made of the leaves of the ranunculus, and the wounds kept open and deep, by applying copperas: if this cannot be easily procured, they bind a piece of copper coin on the sore. Military surgeons should be cautious how they give certificates to soldiers wishing to obtain their discharge from a regiment, on account of incapacity to serve from this cause, and should, for a time, shut them up in a ward in the hospital, where they cannot procure copper coin, or buttons, or other means of keeping open the sore: if the wounds have been kept open by such methods, they will very soon heal under proper treatment.

Long fasting, or the power of refraining altogether from food for years, has been frequently the subject of imposition. The recent case of Anne Moore, of Tutbury, is a remarkable instance.*

Vomiting of urine, and making bloody urine, have sometimes been pretended: this last is done in India, and its appearance caused by eating the Indian fig (*cactus opuntia*,) or the fruit of the prickly pear, which renders the urine of a bloody colour.

Dropsy is frequently pretended by women with child, either from ignorance of their real situation, or to conceal for a time, their shame, or to procure the convenience afforded by an hospital. When preg-

* See the trial of an impostor, for a similar offence, in the State Trials, vol. v. p. 482.

nant women are unknowingly admitted, their case may be discovered by examination, which, when there is any doubt, should be insisted upon. Pregnancy is frequently pleaded, for the purpose of delaying the execution of the law.

Blindness is sometimes counterfeited : if the pupil does not contract, there is no doubt that the disease exists ; but if it does, we may suspect its reality, though, in some cases of amaurosis, the pupils are sensible to the stimulus of light. By reflecting the rays of the sun upon the eye, by means of a mirror, the deception will be immediately discovered.

Deafness and dumbness, fever, lameness, and contraction of the limbs, and many other diseases, have been feigned, which may generally be detected by the absence of their leading characteristics. Some complaints, particularly those of the spasmodic class, vary in different people so much, as to induce a suspicion of their being pretended. Lord Monboddo, in his *Ancient Metaphysics*, mentions an extraordinary case, of what he calls jumping ague, in which the person affected, would jump on chairs and tables, and run with great velocity, during sleep.

Gravel and stone are sometimes pretended to be voided : this imposition may be detected by a chemical analysis of the calculus.

The skin has been stained to imitate jaundice ; but the clearness of the eyes (which are always yellow in that disease), and the colour of the evacuations, will easily detect the imposture.

Hernia is said to have been feigned, by blowing air into the cellular membrane; and the pretended vomiting of pins, frogs, beetles, and other animals, has sometimes deceived the credulous and unwary.

IMPUTED DISEASES.

DISEASES are sometimes imputed, to procure divorce or separation, to obtain possession of the property of another, or to prevent marriage. These diseases are impotence, lues venerea, fits, insanity, or imbecility of mind, and dotage.

Women have been accused, by an enemy, of having been pregnant, for the purpose of destroying their characters, and preventing marriage. The just foundation of these charges may generally be ascertained by examination; and for the means of discovery, as far as it can be effected, I refer to the heads under which these subjects have been separately treated. It is shocking to think, and has probably been little suspected, to what an extent imputed insanity may have been carried, either where it has not existed, or only in so slight a degree, as not to warrant confinement; or how much it has been exaggerated, and its cure retarded, by the inhumanity of relatives.

“I knew an instance,” says Mr. Bakewell, “of a person of very respectable family, who became insane

soon after giving birth to a son. Such cases are generally supposed easy of recovery, from particular circumstances; that it is merely a temporary irritation. She was packed up into a back garret, where she was coarsely fed and coarsely clothed, while her husband enjoyed every luxury that money could purchase, in the house below, till that son became of age, and had her released. I know another family, who have kept a brother for seven years in confinement, without any means of recovery, *for the sake, as I fully believe, of his property*, though they are all in opulent circumstances.

“ I have known a son very evidently taking measures to prevent the recovery of his father; and I have known several instances of people of opulence, taking measures to prevent the recovery of their own brothers.

“ I have seen evident proofs of vexation and disappointment in a wife, on the unexpected recovery of her husband; the same in a husband, on the unexpected recovery of his wife; and in a mother, on the unexpected recovery of a son. I have now in the house a woman, who has been confined in a dark garret, without the comforts of a fire, for the best part of twenty years: her husband confessed to me that he had not seen her for many years. The servant told me that nobody saw her but herself; and she only to take her food, and take away the necessaries. The woman was perfectly inoffensive. He himself was trading at the rate of a thousand pounds a week, by his own confession. Upon his bankruptcy, he was

obliged to provide some means of treatment for her, and he desired me to take her. I have found her very susceptible of good treatment: she seems to take a delight in looking at my children, and the comforts of a good fire; and has some little exercise, occasionally walking out in the open air."*

Such infamous abuses cry loudly for legislative interference, and we may hope will, for the future, be prevented.

APPARENT DEATH.

As hysteria, excessive cold, lethargy, catalepsy, trances, and the various causes which produce asphyxia, may destroy all appearance of vitality, without extinguishing animation itself, it behoves those concerned, to take care that, in cases of suspension of the vital functions, and where persons apparently die suddenly, the body be not too early committed to the grave, as there is reason to believe that some have been buried before the extinction of life; and many such cases have been recorded. Various means have been devised of discovering whether or not the vital spark be really extinct, as placing a basin of water on the chest, and observing its motion, holding a mir-

* See Examination before the Committee of the House of Commons, appointed for the better regulation of mad-houses in England.

ror before the mouth, &c. but the true signs by which death is manifested, are coldness and rigidity of the body, sinking of the eye, dimness and flaccidity of the cornea, lividness of the back, depression and flatness of the loins, the open state of the anus, and the peculiar cadaverous odour;* but, in cases of death by prussic or zootic acid† (which has lately been announced as a new poison, and an instance mentioned by Professor Hufeland, of a thief who destroyed himself with it,) the cornea does not collapse, but retains, for a considerable time, its fulness and lustre; and when death is the consequence of exposure to carbonic acid gas, the body retains its heat longer than when it has been occasioned by any other means.

ECCLESIASTICAL COURTS.

To ecclesiastical courts are referred questions relating to marriage. This contract may be dissolved by a variety of causes, respecting some of which, the opinions of medical men are occasionally required: among these is *impotence*, in either sex.‡

* Blumenbach's Institutes of Physiology.

† This dangerous preparation has lately been recommended in pthisis, by Dr. Majendia; that is when prepared in the milder manner, after Scheele's process. The more concentrated preparation lately described in the books of chemistry, seems as useless as it is dangerous. T. C.

‡ See the case of Lomax v. Holder, as to Bastardy, dependent on the impotence of the supposed parent, 2 Strange's Rep. 940.

Impotence in males may be temporary, or permanent and incurable; it is occasioned by external and internal causes. The external are tumors, or other unnatural enlargements of the penis; its deficiency, either from natural or accidental causes; its total absence, or partial destruction, which latter are not unfrequently occasioned by venereal affections. Obliteration of the canal of the urethra (which, instead of opening into the glans penis, opens into the perineum, or at the middle of the penis,) though not, strictly speaking, a cause of impotence, occasions sterility. The deprivation of both the testicles, or cancerous affection of them, occasions impotency; but one alone, in a sound state, is sufficient for generation. The testicles sometimes remain in the abdomen very late, and by a sudden and violent exertion, are thrust into the scrotum; there are instances of their having continued in the abdomen during life, in which cases Mr. John Hunter thought (and Zacchius and Riolan were of the same opinion,) that sterility would be the consequence; but there is sufficient evidence to prove the contrary; and it is now generally believed that it is accompanied by neither impotence nor sterility.— There are instances of persons having more than two testicles: four, or even five, are said to have been seen.* Pope Sixtus the Fifth, declared he would divorce all eunuchs; and the parliament of Paris, in

* “ Nous avons vu en France trois frères de la plus grande naissance, dont l'un possidoit trois testicules, l'autre n'en avoit qu'un seul, et le troisième n'en avoit point d'apparens: ce dernier étoit le plus vigoureux des trois.”—Vide Voltaire and Bertholin quoted by Mahon.

1665, decreed that the matrimonial contract should not be deemed valid, unless two testicles were evident. Eunuchs are generally without passions or energy.

M. Larrey, Inspector-general of the French army, says, that many of the troops, on their return from Egypt, were affected with a disease, which he calls atrophy of the testicles; they became soft, and gradually diminished, without pain, or the existence of any venereal symptoms. When they are both so affected, the generative faculty, and the natural sexual desires, entirely cease. Park-keepers, who have the management of deer, annul the power of generating in bucks, by squeezing the testicles forcibly, and thus destroying their organization and discerning faculty.

The internal causes of impotence are paralysis, affecting the muscles of the penis, affections of the mind,* general debility of the body, either from accidental disease or habitual excess. To invalidate marriage, however, it is necessary that the disease should be absolutely incurable. Malformation of the organs seldom admits of a remedy. Mr. Hunter was consulted by a person, whose urethra opened into the perineum; being desirous of having children, he recommended him to inject, by means of a syringe, the semen into the vagina, *post coitum*, and during the existence of the *orgasmus venereus*; which plan was supposed to cause impregnation. When the complaint arises from relaxation, general debility, mental affliction, &c. it is often curable by tonic and stimu-

* See Cullen's Synopsis Dyspermatismus.

lating medicine, cold bathing, and nutritious diet; but where it is occasioned by paralysis of the muscles of the penis, the prognosis is not favourable. The imagination is sometimes the cause of temporary impotence, with regard to certain females; for some curious instances of which, I refer my readers to Mr. John Hunter on the Venereal Disease, chap. xii. ; and Montaigne's Essays, chap. xx. on the Imagination. The marriage contract is not dissolved, *ab initio*, by impotency, but by sentence of separation during the lives of the parties.

A certain degree of impotence, occasioned by early and excessive debauchery, and by secret pollution, is I believe, more common than is generally imagined.— When it exists, the secret is of course confided only to a medical friend. It is accompanied by an involuntary discharge of semen, which occasions great debility, and difficulty, or impossibility, of exciting the turgescence of the penis. I have seen three cases of this kind; one of them was occasioned by a species of satyriasmus, the cause of which I could not discover.

Impotence in women may arise from adhesion of the labia, or closure of the vagina, in consequence of inflammation; it is sometimes contracted from original formation, sometimes from disease. Scirrhus hardness, or polypi in the vagina, prolapsus uteri or vaginæ, faults in the menstruation, extensive enlargement of the nymphæ or clitoris, or unnatural density of the hymen, may be causes of impotency. Ambrose Paré mentions the case of a young woman, whose hy-

men was as strong as parchment, which he was obliged to cut with the scissars, before coition could be effected. The late Dr. Clark used to relate a similar case in his Lectures. The remedy, however, is easy, viz. incision. Most of these causes of impotence admit of cure; but cancer in the uterus or vagina, fistulous communications with the bladder and rectum, scirrhus or dropsy of the ovaria, are incurable.

Stricture of the cavity of the uterus,* deficiency of the ovaria, closure of the os uteri, or the Fallopian tubes, will occasion sterility, but can be discovered only after death. The uterus has sometimes been altogether wanting; this can only be ascertained by examination. Sterility, however, often exists where there is no reason to suspect disease or unnatural formation, and depends upon causes which our most minute investigation is not able to discover.

The theory of generation is a subject that has long claimed the attention, and engaged the labour, of philosophers, though unsuccessfully; as it is still but very imperfectly understood.

* See Baillie's *Morbid Anatomy*.

HERMAPHRODITES.

By this term is meant, an animal, combining in its own person both the male and female parts of generation, and capable of begetting or conceiving. It is now admitted, that no such being of the human species ever existed, though it was formerly conceived possible, as by an old French law it was enacted, that they should choose one sex only, and keep to it. It is believed, that some animals, as worms, snails, leeches, and, perhaps, all those that have no bones, are true hermaphrodites. A *lusus naturæ*, giving the appearance of a combination of the sexes, is frequent in inferior animals, particularly in sheep; it is sometimes seen in horses; and horned cattle so formed, are called fremartins; it is not very uncommon in the human species; but since the fabled union of Salmacis and Hermaphroditus, no individual human being is believed to be really capable of exercising both organs of generation.

Hermaphrodites are of two kinds :

1st, The male having a rima in the perineum, resembling the vulva of the female.

2d, The female having a large clitoris, resembling the penis.

The extraordinary appearance of the first case may rise from shortness or deficiency of the penis, the urethra opening at the glans or into the rima, which is not

deep, and closed at the bottom. The rima is between the testes, which give the appearance of labia; in these cases the mammæ and uterus are wanting.

The appearance of the second or female hermaphrodite, is caused by an enlargement of the clitoris, a disease by no means uncommon in hot climates, which has given rise to the custom of female circumcision, sometimes practised in Asia and Africa:* it resembles the penis in size only, but not in structure, and the testes and beard are wanting.

A person of this description, more nearly resembling the true hermaphrodite, is now exhibited in Paris, having the beard and large hairy limbs of a man, the clitoris resembling the penis, and the urethra terminating in its glans, with the breasts and passions of a woman; for a minute description of whom, given by the commission appointed by the *Faculté de Médecine* of Paris, I refer the reader to the 23d number of the *London Medical Repository*. Ambrose Paré mentions a case, where, by violent exertion, the male organs of generation became suddenly developed, and the person who had been before considered to be a woman was admitted to the rights of manhood.† For similar instances, consult Montagne's *Essays*, chap. xx. and Pliny, who says, he himself knew a case of this kind. Many cases are recorded, where, from the imperfect development or defective formation of some of the parts of generation, and from the apparent ad-

* See Niebuhr's *Travels*.

† A similar case, which happened at Thoulouse, is recorded by M. Veay in the sixteenth volume of the *Philosophical Transactions*.

mixture of others, it is difficult to determine to which sex the unfortunate person belongs, particularly during infancy; but as by matured age they are evolved, the characteristics of the sex commonly become evident. In persons thus formed, the passions are seldom very strong, and they are generally unable to perform the functions of either sex.

SOME subjects, usually treated of in works of this kind, as unnatural offences, &c. I have wholly omitted, because it does not appear that medical evidence can often be deemed necessary in courts of justice to prove their perpetration; and, should it be required, the injury which would probably be inflicted, must immediately suggest itself to the mind of every practitioner.

Medical police is a distinct subject, though, as it regards the health and well-being of society, it is a very important one, on which I shall probably, at a future time, offer some observations.

MEDICAL JURISPRUDENCE,

AS IT RELATES TO

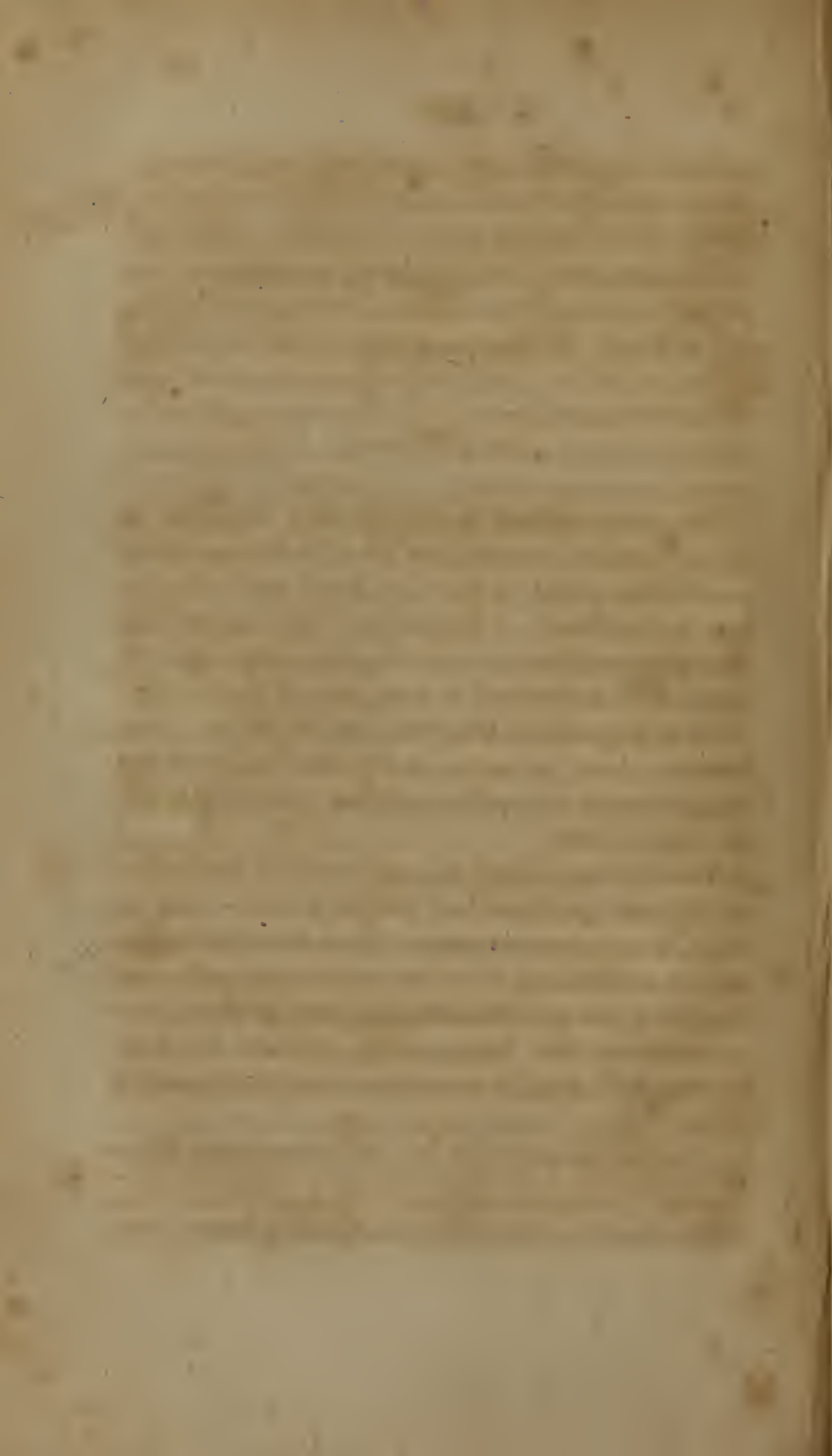
INSANITY,

ACCORDING TO

THE LAW OF ENGLAND.

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PREFACE.

THE consideration, that in our own language, no work existed on the subject of Medical Jurisprudence, as it relates solely to Insanity, urged me to the present performance. Previously to this* undertaking, manifold impediments were foreseen, and these difficulties have augmented in every page of its progress:—the apprehensions from this arduous attempt, have, however, been mitigated by the consoling reflection, that in a novel enterprize, criticism would be tempered with candour.

The following sheets are addressed to the readers of different pursuits, law and medicine:—from the latter, I have heretofore experienced much indulgence and encouragement, when the result of my professional labours has been submitted to their judgment:*—to the former I am little known: and here feel it necessary, by a distinct avowal, to assert that I have in

* Vide Observations on Insanity, 8vo. 1798.—Observations on Madness and Melancholy, 8vo. 3d. Ed. 1818.—Illustrations of Madness, 8vo. 1810.—Considerations on the Moral Management of the Insane, 8vo. 1817.—Contributions to the Natural History and Physiology of the Human Intellect.

no manner presumed to encroach on their province.— Although the title may seem to imply an incorporation of the two sciences, yet it is not to be considered as the combination of definite proportions of legal and medical knowledge. It has been modestly conceived that the general phenomena of disordered intellect, and the criteria of insanity, would not be unacceptable to the advocate; who might thereby become enabled to adapt the facts in nature to the scale of justice. Furnished with such information, he will be instructed to institute appropriate enquiries for the discovery of truth, and to ascertain what is the duty of the medical evidence to supply:—so that he may not be pressed beyond his resources, nor the depths of his intelligence be left unsounded. On the practitioner of my own profession, I have ventured to impress the importance and moral obligation of his evidence before the tribunal of justice, and to enforce, that the value of medical opinion becomes enhanced by perspicuity of conveyance, and derives authority from the exposure of its foundations. It has likewise been my object, to direct his attention to those leading points, which usually constitute the subjects of his deposition, or are presented for his solution during the course of legal examination.

The technical language of the learned professions is commonly enveloped in mysterious obscurity:—persons for the most part acquire names without investigating their force and legitimate import; and currently employ them rather from habit than comprehension: it has therefore been my anxious endea-

your to scrutiuize words of important meaning; and to convey the manifestations of mind and the symptoms of disease, by expressions generally understood, and emancipated from the thralldom of professional nomenclature.

To complete the plan I originally projected, there still remains to submit to the notice of the public, "The consideration of insanity in a political view," enquiring how far human wisdom, properly directed, might become the instrument to diminish this severe and encreasing affliction,—and especially to point out the desiderata for a *bill* to protect the insane, and regulate the receptacles wherein they may be confined. Notwithstanding the heterogeneous mass which has been authoritatively diffused on this important subject, the necessary materials have not yet been collected. Those who will probably attempt to frame this measure, have much to learn, and more to dismiss.—The production of a wise and salutary bill requires ample research and temperate reflection: and therefore can never be the offspring of minds void of information, and saturated with prejudice. As Insanity is a disease, by the unanimous concurrence of physicians, most certainly to be remedied at the commencement of its attack: it ought to be a leading object with those who possess the power to legislate, to afford every facility to the medical attendant, that he may have an early access to the treatment of this malady, for the restoration of the patient, and for the security of the public. But if the practitioner is to be pinioned by threats, or deterred by obloquy—if his

skill is to be circumscribed by ignorance, and his experience subjected to wild hypothesis, and baseless conjecture; then, the enactment will be oppressive in its operation, and incompetent to meet the exigencies of intellectual calamity—a bill, calculated to confirm and aggravate the horrors of madness—to invite suicide, and multiply murder.

JOHN HASLAM.

*1st December, 1817,
51, Frith Street, Soho Square.*

ON

MEDICAL JURISPRUDENCE :

8c. 8c. 8c.

MEDICAL Jurisprudence has been assiduously cultivated by the different nations of the European Continent ; and many works of great value and esteem have been produced by foreign professors of medicine on this important subject. In our own country, this department of medical science has been comparatively neglected.* It is not my intention, in the present tract, to enter generally on the subject of Forensic Medicine : but to confine my investigation to that particular branch which relates to persons of insane mind, and who, under the visitation of this dreadful calamity, commit acts of violence which subject them to be arraigned before the tribunal of Justice, or to have their property vested in trust, by finding a verdict on a writ de Lunatico inquirendo.

* Vide an Epitome of Juridical or Forensic Medicine, by George Edward Male, M. D. a work of great excellence and scientific discrimination; also Tracts on Medical Jurisprudence, by Drs. Johnson, Bartley and Farr.

Although of the utmost consideration, the extent of this enquiry would seem to be very limited, and contained in this simple question. Is the person accused, of insane mind? If he be insane, he will be acquitted on the *proof* of his insanity—if he be not of insane mind, he must be treated as an ordinary delinquent. In those cases where the prisoner is so bereft of his reason, that any twelve men would not entertain a different opinion—where numerous evidences appear to testify to repeated acts of insanity, which are so manifest that they cannot be otherwise interpreted—and where he has been confined and treated for this malady, the physician will have an easy duty to perform: but it is in cases which appear to be involved in difficulty—where the disorder, although existing and directing the actions, is not so ostensibly developed, that the medical evidence becomes important, and capable by sagacity, experience and truth, of explaining and characterizing the state of the person's intellect.

Duty of a
Physician
when ex-
amined.

The important duty which the medical practitioner has to perform, when he delivers his testimony before a court of justice, should be clearly defined, conscientiously felt, and thoroughly understood—his opinion ought to be conveyed in a plain perspicuous manner; he should be solemnly impressed that he speaks upon oath, the most sacred pledge before God between man and man—and that the life of a human being depends on the clearness and truth of his deposition.—He is not to palm on the court the trash of medical hypothesis as the apology for crime; neither should the lunatic receive his cure at the gallows by the in-

firmity of his evidence—but above all, his opinion should be so thoroughly understood by himself; so founded in experience and fortified by reason, that it may resist the blandishments of eloquence, and the subtil underminings of cross-examination. The physician should not come into court merely to give his opinion—he should be prepared to explain it; and able to afford the reasons which influenced his decision:—without such elucidation, Opinion becomes a bare Dictum, and endeavours to claim precedence, without courtesy or obligation to science.

It is to be regretted, that on many occasions where several medical practitioners have deposed, there has been a direct opposition of opinion:—this difference has sometimes prevailed respecting insanity,* but more frequently in cases of poison. It is not intended to account for this contrariety of evidence: much will depend on the sagacity of the counsel to institute the proper enquiries: and still more will be incumbent on the medical evidence, in order to explain and establish his testimony. On one side, the evidence will be positive; and it is to be presumed that no member of the medical profession would directly state an individual to be insane without being able, satisfactorily to his own reason and conscientious feelings, to exhibit from his conversation, his actions or his writings, unequivocal proofs of his derangement. To such well founded illustration, negative evidence would but little avail.

* Vide my Illustrations on Madness

The lawyer's object is the interest of his employer, and for the fulfilment of his duty he is frequently compelled to resort to a severity of investigation which perplexes the theories, but more frequently kindles the irritable feelings of the medical practitioner. This distrust on the part of the lawyer, however unpalatable, is fully justified: most witnesses going into court, not with a wish to be examined, but with the preconcerted intention of *proving* to a certain extent;—and those most conversant in the history of human testimony, have been extremely scrupulous of admitting it as uniform truth until it has been carefully sifted. Guarded with these precautions and armed with professional experience, the medical practitioner may approach the tribunal of justice with confidence, and advantage to the cause of truth. However dexterous he may show himself in fencing with the advocate, he should be aware that his evidence ought to impress the judge, and be convincing to the jury. The most experienced physician who has seen insanity in all its forms, and viewed its more delicate shades, must in a question of this nature submit his opinion to the comprehension and feeling of the ordinary persons who are to appreciate his deposition. Their BELIEF of the alleged insanity must be the test by which his scientific opinion is to be established. That which may be deemed by the medical evidence, clear and unequivocal madness, may not hit the sense of the gentlemen of the long robe, nor carry conviction to the jury.

It may here be important to investigate the sources from whence the popular feeling and intelligence concerning madness have been derived; or in other words, what are the foundations for the opinions of the generality of persons, on the subject of insanity? Patient enquiry, daily communication with deranged persons, and attentive observation of their habits, confer the means of judging on medical practitioners, and more especially on those, who have for a series of years, solely confined their practice to this department of the profession. The information of the lawyer is principally deduced from the writings of those great legal authorities to which he refers with confidence;—although these grave authorities have laid down *no definition of madness*, nor given any directions how to discover it. The ordinary class of persons, who are usually summoned to act as jurymen; and who are sufficiently virtuous and intelligent; have in common with the mass of mankind, formed their opinions of that state of mind which is denominated madness, and it should be observed that such opinions are not very easily removed or altered. It will be a curious and instructive enquiry, to investigate the circumstances which have, in all probability, contributed to fix their notions on the subject of insanity. They have wanted the means of direct information, and consequently have adopted the popular and floating opinions on this disease. That dramatic representations have forcibly operated for this purpose there is little reason to doubt; and some of the plays of Shakspeare exhibit many of the forms which this malady is suppo-

Sources
of popular
opinion on
the sub-
ject.

sed to assume. Among such characters, none have more strongly fastened on the general mind, than the outrageous Lear, and the distracted Ophelia; the subtil craziness of Hamlet, leaves it doubtful if his alienation of mind be real, or conveniently assumed—and to the ordinary observer conveys more of fiction, than the avowed counterfeit of Edgar. Romances, the literary food of the idle and thoughtless, abound in descriptions of intellectual calamity;—but these artificers of fancy, like many unskilful performers, are too prone to strain the loftier impressions of feeling, and distort the energies of passion, into mental derangement. Something of affecting interest may be excited by the weaknesses and wanderings of Sterne's Maria, but Cervantes has exhibited the happiest and most correct picture of systematic insanity; although the vehicle of chivalry in which it is conveyed, has, to our own countrymen, blunted its interest as a physiological portrait of madness:—his sallies have provoked mirth, and so keen is the relish for the ridiculous, that in the luxury of laughter, the reader has forgotten the tribute of commiseration. Within my own recollection, Bethlem Hospital gratified the curiosity of the vulgar of both sexes; these visitors were most eager to penetrate into the recesses of the furious and naked maniac: the hideous howlings of those violently affected, forcibly arrested their attention.—With the insane of a milder cast, they were but slightly interested; except the singularity of their actions, or incoherence of discourse were calculated to excite their merriment. They were much delighted with

the archness of retort and ridiculous buffoonery which often forms a striking feature in the character of the insane. They were particularly gratified at the manner in which they frequently ornament their persons: a straw crown or sword of the same material, pleasingly occupied their attention;—but they passed over the silent and melancholic, and usually retired with the impression, that the quiet and orderly were convalescent, or improperly confined. To impress ordinary persons with the existence of insanity, some prominent and strongly marked features are absolutely required; as the popular feeling and intelligence concerning madness is the result of those glaring exhibitions, those caricatures of disease which the stage represents or romances propagate. Of methodical madness, of systematic perversion of intellect, the multitude can form no adequate conception, and cannot be persuaded that insanity exists without turbulent expression, extravagant gesture, or phantastic decoration. The converse of this has likewise, not unfrequently obtained; and even among those who might be supposed to possess superior information.—Hesitation of speech, nervous and convulsive affections—uncouth gestures resembling St. Vitus's dance, absence of mind—dulness in comprehending a question, with tediousness and embarrassment in affording the reply, have often induced the mistaken supposition that the party was insane.

On those occasions, where the madman has been tried in a criminal court, the counsel for the prosecution has usually and gravely enquired of the medi-
Usual course of examination by lawyers,
 extends beyond the means of knowledge.

cal evidence, whether the prisoner on ordinary topics and on subjects unconnected with his insanity, would not converse in a rational manner :* and also whether he did not possess sufficient understanding to discriminate between *Good* and *Evil*, *Right* and *Wrong*? When a medical person is employed concerning any one to whom insanity is imputed, his principal enquiry is concerning his insanity: it is not his object to ascertain how much reason he possesses, but how far, and on what topic he is insane. And having gauged his insanity, he has performed his duty. If it should be presumed that any medical practitioner is able to penetrate into the recesses of a lunatic's mind, at the moment he committed an outrage; to view the internal play of obtruding thoughts, and contending motives—and to depose that he knew the *Good* and *Evil*, *Right* and *Wrong*, he was about to commit, it must be confessed that such knowledge is beyond the limits of our attainment. It is sufficient for the medical practitioner to know that his mind is deranged, and that such state of insanity will be sufficient to account for the irregularity of his actions; and that in a sound mind, the same conduct would be deemed criminal. If violence be inflicted by such person during a paroxysm of rage, there is no acuteness of metaphysical investigation which can trace the suc-

* Madmen *generally* converse on ordinary topics in a rational manner.—The nervous affection in which the disease consists, usually misleads their conceptions on some particular topic or subject; and they become impressed with belief and persuasion of something, that is in fact untrue and absurd: and on such false premises they reason, and often draw fair conclusions. T. C.

cession of his thoughts, and the impulses by which he is goaded for the accomplishment of his purpose. And it will be shewn hereafter, that in some instances, he is not himself conscious of his actions. Should an equal injury be inflicted by the crafty and deliberate machinations of systematic insanity, where the motives to action are delusions, the scrutiny into the exact procession of thought which produced the motive, or excited the determination, is likewise beyond the reach of the medical practitioner. As it would be difficult, in a person of the soundest mind, to detect the succession of thoughts, tracing that which was most remote *from*, to that which was proximate *to*, the action; it can less be expected that the medical evidence should be capable of noting the consecutive irregularities of a disordered intellect.

Respecting the quantum of reason which the lunatic possesses, the physician may safely conclude, where he betrays no derangement, that on such topics, he is of sound mind; and the fact is firmly established, that those who are insane on particular subjects, will reason correctly on ordinary and trivial points; *provided they do not become associated with the prevailing notions which constitute their insanity.* Ordinary persons have been much deceived by this temporary display of rational discourse, and it generally occurs that we are disposed to form a hasty conclusion, in proportion to the paucity of our knowledge on any given subject:—most minds feel more invited to indulge in the convenience of a syllogism, than to undergo the toil of induction. Although an insane

Occasional
appearances of sanity.

person may be calm and apparently rational at the beginning of an interview, yet when least expected, his disorder breaks forth, and in many instances, there seems to be no cause for this conversion from apparent sanity to evident derangement. In the commencement of the conversation, the lunatic shall evince a healthy perception of existing objects, and institute a just admeasurement of the subject under contemplation; or in other words, shall reason correctly; if he be placed in the society of other madmen, he is able to detect the folly and aberration from reason, which characterize their peculiar phantasies, and will often endeavour to convince them of the absurdity of their prevailing opinions; yet, in a moment, his mind launches into the regions of fiction, its admired clearness becomes obscured, and its seeming regularity exhibits a confused assemblage or violent distortion. There is no intermediate condition which separates these states: and the transition very much resembles the last connected glimpses of our waking thoughts, followed by the abrupt creation of a dream.

This occasional display of rationality, although admitted by all who have had experience of the insane, excites a doubt in the minds even of learned and intelligent persons, who have merely speculated on this disease. They have conceived, from the existing philosophy of the intellect, that reason is the directress of human actions,—that this high arbiter of thought is an undivided principle—that where the rudder is attached, the ship may be steered—and that he who reasons must be rational: and so he is,

as long as he *does* reason. But the inference of the integrity of the reasoning faculty, in consequence of occasional gleams, is a gratuitous and groundless supposition. It often happens that persons may converse for some time with a lunatic, and find him apparently composed and rational; he will discuss the floating topics of the day as another man,—accord with the most enlightened on the general principles of morals, and correctly estimate the light and shadow of human conduct. If the observer should here retire, he might be convinced of his sanity: but let him protract the discourse, let him touch the fatal string which throws his mind into discord: let him draw the hair-trigger which inflames the combustible materials of his disease, and he will be surprised if not alarmed at the explosion. The sweeping tyranny of madness scorns the demarcation which limits the sober mind; and it should likewise be taken into account, that the subjects which constitute the insanity of a person, are the prominent features of his mind, and are more frequently recurred to than any other. It is true, he may discuss ordinary topics like other men; but this to him is a species of bye-play, and he soon reverts to the interest or catastrophe of his drama. Whatever may be the subject of discourse, and however rationally he may appear to treat it, the experienced practitioner will expect, and he will not often be disappointed, to find that by some unaccountable association, even ordinary topics are linked with his darling delusion,—the map of his mind will point

out that the smallest rivulet flows into the great stream of his derangement.

[Rush's Lectures, Philadelphia, 1811, page 367, contain the following remarks. T. C.]

“ In no stage of phrenzy* is a person in a condition to dispose of property, or to contract legal guilt of any kind, nor in the following states of madness :

1. “ When it is general, that is, when persons talk or act incoherently upon all subjects : Nor

2. “ In its intervals, when those intervals occur after weekly or even monthly paroxysms of madness. The mind in these cases, seldom recovers its habits of correct action.

3. “ Where persons depart in their feelings, conversation, and conduct, in a great degree from their former habits. Thus, hatred to relations and friends who have never injured them ; great taciturnity, or great loquacity ; sudden acts of prodigality, or economy ; liberality to public institutions at the expense of private justice ; the evolution of talents for wit and rhyming, and the arts of deception commonly called cunning, when contrary to the tenor of former practices ; are all signs of derangement, and should constitute solid objections to the performance of acts which the law requires to be performed only in a sound state of mind. There are instances in which madmen talk rationally, but write incoherently. There are instances in which they do both correctly, but act irrationally in all the common affairs of life ; and

* Derangement from acute inflammation.

there are instances in which they are rational in one place and not in another. I have known a clergyman, whose prayers and sermons in the pulpit, discovered every mark of a sound mind, but who was constantly deranged when out of it; and I have heard of a judge in a neighbouring state, who was deranged in a high degree in his family, and in company, who astonished the court of which he was a member, by the correctness of his opinions and conduct, when he took his seat upon the bench. In all anomalous cases of this kind, it will be proper to examine the state of the mind by conversation, by letter-writing, and by conduct, as well as by a change of situation.

“Should all of the above marks fail of deciding the state of the mind as to sanity, recourse should be had to the state of the pulse. It is, with but few exceptions, more frequent in all the grades of madness than in health. This remark, I know, is contrary to the histories of this disease that are to be met with in authors; all of whom consider the absence of fever as the characteristic difference between madness and delirium. Should any one doubt of the truth of this remark, I beg leave to refer him to the Pennsylvania hospital, in which there are, at present, between sixty and seventy maniacs; in all of whom, except eight, the pulse is more frequent than in its natural state.”

On a more attentive consideration, there appears to be something latent, and perhaps mischievous, in the terms *Good* and *Evil*, *Right* and *Wrong*, as applied to cases of insanity. If an *insane* person be responsible for his conduct, I know of no law which sanc-

tions his confinement. If he can discriminate between *Good* and *Evil*, *Right* and *Wrong*, on what pretence is he to be deprived of his liberty? Is it humane to suppose him in his senses when he becomes most outrageous? Is it christian-like to deem him responsible, because the violence of his disorder tears down the fences of the law, or snaps the ties of natural affection? Ought he to be punished when he is most to be pitied? If it be supposed that the terror of example will prevent the sallies of the maniac, it is a lamentable mistake. His belief in the *Good* of his principle, his faith in the *Right* of his actions, are superior to arguments,—his motive cannot be controuled by reason, nor baffled by the fear of punishment. Impressed with a *belief* in the truth of his delusion, he hurries forward to its accomplishment; and in the pursuit of the phantom, cannot be diverted by the the most awful consequences. He is of those

“quem neque pauperies
“Neque mors, neque vincula terrent.”

It is this firm belief, this fond indulgence of opinion, which makes him prefer seclusion to liberty; and leads him rather to forego existence than renounce his delusion. It is the same principle, which in a good cause, cheered the martyr at the stake, and raised his exultation while the flame consumed him. It is this *Belief*, however erroneous, which kindles enthusiasm in a cause, and arms us to defend it.

On belief,
as consti-
tuting in-
sanity.

As the word *Belief* is important, it will not be considered unnecessarily digressive, to attempt an in-

vestigation of its legitimate meaning. There are two modes of ascertaining the meaning of a word; either by referring to its etymology, to discover the cause of its application: or to collect the authorities which show, that certain persons who are accredited, have so employed it. By turning to Dr. Johnson's Dictionary, the reader will find that the different authorities which he has cited, have used this word in different acceptations. Without descending to the minutæ of verbal examination, and tracing back its derivation to its Gothic or Saxon radical, it may be safely asserted, that to *Believe*, originally implied to believe: to be attached or partial to, independently of any evidence which would lead to demonstration.—This belief is the immediate motive to action, and although incapable of becoming the subject of demonstration itself, is not to be set aside by the clearest and most forcible refutation.

“ You may as well
 “ Forbid the sea for to obey the moon,
 “ As by an oath remove, or counsel shake
 “ The fabric of his folly, whose foundation
 “ Is pyld upon his faith.”

Winter's Tale.

It would be a curious and instructive enquiry, to ascertain under what circumstances the mind admits as rules for action, those principles which do not admit of proof: because, if we could detect the manner in which the knot is tied, we might probably be able to unloose it. In the course of our education, we are taught to adopt many maxims, the truth and expedi-

ency of which may not be very evident; however as we advance in life, experience and good sense gradually dispel many of these prejudices and erroneous adoptions. But in the insane mind, the same process does not take place, and generally in proportion to the reasoning adduced to confute the delusion, or the demonstration employed to exhibit its absurdity, it becomes more strongly confirmed and inveterately fixed; and the logic brought forward for its refutation, is by the lunatic held as ignorance or misapplication. A person in his senses may entertain and believe a number of unfounded and erroneous opinions, but on the exposure of their falsity, he is capable of being convinced, but the madman never is; and this forms the great distinction between them. This incapability of being convinced of the *Good* and *Evil*, *Right* and *Wrong*, *Truth* and *Falsehood* of his *Belief* is that, which has an intellectual being, renders him different from other men, and constitutes his distemper. To our present purpose, it is immaterial how this arises, the knowledge of its existence is sufficient; and it concerns us but little, to ascertain if this state depend on a morbid condition of the intellect itself, or of the organ destined for the display of its phenomena.

This belief appears physiologically to constitute his disorder; and the hope of placing this subject in a distinct point of view, may be an apology for the relation of the very remarkable case of Nicolai of Berlin.* In consequence of a series of calamities which

* Vide Ferriar on Apparitions, page 41.—As the Doctor has not cited

afflicted him with the most poignant grief, he had in January and February of the year 1791, the additional misfortune to experience several very unpleasant circumstances, which were followed on the 24th of February, by a most violent altercation. “ My wife and another person came into my apartment in the morning, in order to console me, but I was too much agitated by a series of incidents which had most powerfully affected my moral feeling, to be capable of attending to them ; on a sudden I perceived, at about the distance of ten steps, a form like that of a deceased person, I pointed at it, asking my wife if she did not see it ? It was but natural that she should not see any thing ; my question, therefore, alarmed her very much, and she sent immediately for a physician ; the phantasm continued about eight minutes. I grew at length more calm, and being extremely exhausted, fell into a restless sleep, which lasted about half an hour ; the physician ascribed the apparition to a violent mental emotion, and hoped there would be no return ; but the violent agitation of my mind had in some way disordered my nerves, and produced farther consequences, which deserve a more minute description.

“ At four in the afternoon, the form which I had seen in the morning re-appeared. I was by myself, when this happened, and being rather uneasy at the incident, went to my wife’s apartment, but there like-

whence he obtained this curious document, I have been under the necessity of employing, perhaps, his own translation.

[Dr. Ferriar copied the account of Nicolai, as found in Tillock’s Magazine. T. C.]

wise, I was prevented by the apparition, which however, at intervals, disappeared, and always presented itself in a standing posture: about six o'clock there appeared also several walking figures, which had no connexion with the first.

“ I cannot assign any other cause of all this, than a continued rumination on the vexations I had suffered, which, though calmer, I could not forget, and the consequences of which I meditated to counteract:— these meditations occupied my mind three hours after dinner, just when my digestion commenced. I consoled myself at last with respect to the disagreeable incident which had occasioned the first apparition, but the phantasms continued to increase and change in the most singular manner, though I had taken the proper medicine and found myself perfectly well. As when the first terror was over, I beheld the phantasms with great emotion, taking them for what they really were, remarkable consequences of an indisposition, I endeavoured to collect myself as much as possible, that I might preserve a clear consciousness of the changes which should take place within myself; I observed these phantasms very closely, and frequently reflected on my antecedent thoughts, to discover, if possible, by means of what association of ideas exactly, these forms presented themselves to my imagination. I thought at times, I had found a clue, but taking the whole together, I could not make out any natural connexion between the occupations of my mind, my occupations, my regular thoughts, and the multifarious forms which now appeared to me, and

now again disappeared. After repeated and close observations, and calm examination, I was unable to form any conclusion relative to the origin and continuation of the different phantasms which presented themselves to me. All that I could infer was, that while my nervous system was in such an irregular state, such phantasms would appear to me as if I actually saw and heard them; that these illusions were not modified by any known laws of reason, imagination, or the common association of ideas, and that probably other people who may have had similar apparitions, were exactly in the same predicament.—The origin of the individual forms which appeared to me, was undoubtedly founded on the nature of my mind, but the manner in which it was thus affected, will probably remain for ever as inscrutable as the origin of thought and reflection. After the first day, the form of the deceased person no more appeared, but in its place there appeared many other phantasms, sometimes representing acquaintances, but mostly strangers: those whom I knew were composed of living and deceased persons, but the number of the latter was comparatively small. I observed the persons with whom I daily conversed, did not appear as phantasms, these representing, chiefly, persons who lived at some distance from me. I attempted to produce at pleasure, phantasms of persons, whom I knew, by intensely reflecting on their countenance, shape, &c. but distinctly as I called to my lively imagination the respective shades of three of these persons, I still laboured in vain to make them appear to me as phan-

tasms, though I had before involuntarily seen them in that manner, and perceived them some time after, when I least thought of them. The phantasms appeared to me contrary to my inclination, as if they were presented to me from without, like the phenomena of nature, though they existed no where but within my mind. I could at the same time distinguish between phantasms and real objects, and the calmness with which I examined them, enabled me to avoid the commission of the smallest mistake. I knew exactly when it only appeared to me that the door was opening, and a phantasm entering the room, and when it actually opened, and a real person entered. These phantasms appeared equally clear and distinct at all times and under all circumstances, both when I was by myself and when I was in company; and as well in the day as at night, and in my own house as well as abroad; they were, however, less frequent when I was in the house of a friend, and rarely appeared to me in the street; when I shut my eyes, these phantasms would sometimes disappear entirely, though there were instances, when I beheld them with my eyes closed, yet when they disappeared on such occasions, they generally re-appeared when I opened my eyes. I conversed sometimes with my physician and my wife, of the phantasms which at the moment surrounded me; they appeared more frequently walking than at rest, nor were they constantly present.— They frequently did not appear for some time, but always re-appeared for a longer or shorter period, either singly or in company, the latter however, being

most frequently the case. I generally saw human forms of both sexes, but they usually appeared not to take the smallest notice of each other, moving as in a market place, where all are eager to press through the crowd; at times however they seemed to be transacting business with each other: I also saw several times people on horseback, dogs and birds. All these phantasms appeared to me in their natural size and as distinct as if alive, exhibiting different shades of carnation in the uncovered parts, as well as in different colours and fashions in their dresses, though the colours seemed somewhat paler than in real nature, none of the figures appeared particularly terrible, comical, or disgusting, most of them being of an indifferent shape, and some having a pleasing appearance.

“ The longer these phantoms continued to appear, the more frequently did they return, while at the same time they increased in number about four weeks after they had first appeared. I also began to hear them talk, the phantoms sometimes conversed among themselves, but more frequently addressed their discourse to me; their speeches were commonly short and never of an unpleasant turn. At different times there appeared both dear and sensible friends of both sexes, whose addresses tended to appease my grief, which had not yet wholly subsided: these consolatory speeches were in general addressed to me when I was alone, sometimes I was accosted by these consoling friends while in company, frequently while real persons were speaking to me: these consolatory

addresses consisted sometimes of abrupt phrases, and at others they were regularly connected.

“ Though both my mind and body were in a tolerable state of sanity all this time, and these phantasms became so familiar to me, that they did not cause me the slightest uneasiness, and I even sometimes amused myself with surveying them, and spoke jocularly to my physician and my wife; yet I did not neglect to use proper medicines, especially when they began to haunt me the whole day and even at night as soon as I awaked.

“ At last it was agreed that leeches should be again applied to me, as formerly; which was actually done April 20, 1791, at eleven o'clock in the morning. No person was with me besides the surgeon; but during the operation my chamber was crowded with human phantasms of all descriptions. This continued uninterruptedly till about half an hour past four o'clock, just when my digestion commenced. Soon after their colour began to fade, and at seven o'clock they were entirely white. But they moved very little, though the forms were as distinct as before: growing however by degrees more obscure; yet not fewer in number as had generally been the case. The phantoms did not withdraw, nor did they vanish, which previous to that time had frequently happened. They now seemed to dissolve in the air: while fragments of some of them continued visible a considerable time. About eight o'clock, the room was entirely cleared of my fantastic visitors.”

This very interesting relation by the patient himself, is here introduced in preference to other cases which have fallen under my own experience: but all of which are inferior in interest, and accuracy of observation. Nicolai was a man of unquestionable veracity, of liberal education, and a distinguished author. Although he laboured under a delusion, by seeing and hearing those things which did not exist, yet his belief in their reality was never subscribed:—on the contrary, he knew them to be delusions,

“A false creation, proceeding from the heat-oppressed brain.”

These apparitions were obtruded on his vision, and their voices struck his ear. Notwithstanding these phantoms had the

“Power to cheat the eye with blear illusion,
“And give it false presentments.”——

still he was persuaded that his perception was beguiled. Had he believed in their existence, and acted from a conviction of their reality, he ought to have been deemed insane. But under Nicolai's own relation of his capability to discriminate illusion from reality, the conclusion is fully warranted, that he was a being responsible for his actions.

It may here be proper to direct the attention of the reader to the motives which have frequently impelled those of unsound mind to the injury or destruction of their fellow creatures:—and from my own experience, many have been prompted by a dream or vi-

Motives
that lead
to doing
mischief.

sion, which has been so distinctly revealed and forcibly impressed, that it has carried the conviction of reality and divine command. Some hear voices and obey the mandates which are thus whispered, from a *Belief* in the superior authority which has issued them : and after an outrage has been perpetrated by one of these maniacs, it is astonishing with what coolness and satisfaction he will attempt to justify its necessity, and even undismayed, advance to the scaffold.— If therefore, there be the same *Belief* in delusion as in reality—if the maniac be persuaded that his vision has brought him into the presence of the Almighty, or that the fancied voice is the divine command, he becomes the subject of pity and protection, but not of punishment. If he be acknowledged insane upon many subjects, and kills another, should he be supposed of sound mind on account of having committed such outrage? Is he to be judged from the state of his intellect, or by the atrocity of the action?

However the maniac may direct the sallies of his violence and resentment against the lives of others, frequently of those to whom he is nearest allied, or bound by obligation and friendship ; yet there is another feature which his disorder assumes, and which always secures the commiseration of mankind. It more frequently occurs in the deranged state of these pitiable persons, that they seek to revenge on themselves the supposed crimes they have committed. In our own country, there are more lunatics who destroy themselves, than attempt the lives of others ; and in these cases, the Coroner's jury has always agreed on

a merciful interpretation. Indeed there are but few instances of the impotent folly of degrading the carcase, excepting where self-destruction has anticipated the rigor of the law.

It is of frequent occurrence, that persons labouring under insanity, although of exemplary lives and unblemished character, shall believe themselves guilty of the most atrocious crimes;—reputation, the dearest possession of the sound mind is sacrificed without a regret, by the despairing lunatic;—he accuses himself of cowardice, of fraud, of secret murder, or of a turpitude at which man revolts;—and others blessed with opulence, and enjoying those comforts which render life desirable, become apprehensive of terminating their existence in the work-house. Sometimes the desire of death is so ardent, that they will perpetrate any crime in order to be arraigned and condemned at the bar of justice. Of this extraordinary perversion, I shall take the liberty to relate a very striking instance.

A woman of about 36 years of age, who had been well educated, but whose conduct had not been exempt from some irregularities, in consequence of intemperance and manifold disappointments, became affected with madness. She was by turns furious and melancholic, and conceived she had murdered one of her children, for which she ought to suffer death.—She detailed the manner in which she had destroyed the child, and the motives which actuated her, so circumstantially, and with so much plausibility and feeling, that if I had not known her child to be living.

I might have been deceived. By her own hands she had repeatedly endeavoured to terminate her existence, but was prevented by constant vigilance and due restraint. Her disposition to suicide was afterwards relinquished; but she still persisted, that for the murder of the child, she ought to suffer death, and requested to be sent to Newgate, in order to be tried, and undergo the sentence of the law:—indeed she appeared to derive consolation from the hope of becoming a public example, and expiating her supposed crime on the scaffold. While in this state, and with a hope of convincing her of its safety, the child was brought to visit her. When she beheld it, there was a temporary burst of maternal affection; she kissed it, and for a few moments appeared to be delighted:—but a look of suspicion quickly succeeded, and this was shortly followed by a frown of indignation, which rendered the removal of the child a measure of wholesome necessity. Perhaps, in no instance, was the buoyancy of madness more conspicuous over reason, recollection, and feeling. She insisted they had attempted to impose on her a strange child, which bore a feint resemblance to her own: however, by such subterfuges, she was not to be deceived; she had strangled the child until life had totally departed, and it was not in the order of nature that it should exist again. The effect of this interview was an exasperation of her disorder,—she became more cunning and malignant, and her desire for an ignominious death was augmented. To render this more certain, and accelerate her projected happi-

ness, she enticed into her apartment a young female patient, to whom she appeared to be attached, and having previously plaited some threads of her bed-quilt into a cord, she fixed it round the neck of the young woman, and proceeded to strangle her. Fortunately, some person entered the room, and unloosed the cord in time to save her. When this unhappy maniac was questioned concerning the motive which induced her to attempt the destruction of a person for whom she had manifested kindness; she very calmly replied, that as the murder of her own child was disbelieved, she wished to exhibit a convincing proof of the ferocity of her nature, that she might instantly be conveyed to Newgate, and hanged, which she desired as the greatest blessing. With considerable satisfaction, I may add, that in a few months, notwithstanding her derangement had been of three years duration, this woman perfectly recovered, and for a considerable time has performed the duties of an important and respectable office.

Influenced by curiosity, and a wish for the advancement of professional knowledge, I have always been induced to scrutinize as deeply as possible into the feelings of lunatics who have perfectly recovered; I therefore wished to be informed from this patient in her sane state, what were her feelings and opinions concerning her former condition. She recollected most of the circumstances which had transpired during her illness, but she was unable adequately to comprehend, or to give any account of her disorder—it seemed to her like a wearisome and protracted dream,

but more distinct and connected—she almost doubted with her present feelings, if she could be the same person, to have entertained opinions and resentments so different from her natural character. When questioned concerning her attempt to strangle the young woman, she rejoiced that no fatal consequences had ensued, yet she seemed to attach but little responsibility to any thing she might have committed in that frame of mind. Death, from which, as other human beings, she now shrunk with horror, was then the most desirable of all events. Respecting the child, she observed her mind was as suddenly seized with the conviction that she had destroyed it, as a person is attacked with the shivering fit of an ague, and feels the sensation of cold in the hottest day of summer.—On enquiring if these former impressions often recurred to her mind; she replied in the negative;—that although she could accurately recollect them when questioned, yet they now seemed removed to a vast distance from the natural range of her thoughts:—and that she found herself pleasantly occupied in contriving plans for the welfare and happiness of her future life.

It is therefore not the fear of death which can arrest the projects of the maniac mind; for on many occasions, they seek it as the greatest consolation; and quietly submit to seclusion and its consequent privations, sooner than renounce their opinions, or withhold their endeavours to accomplish that which appears to them, from the disordered state of their intellect, *Good* and *Right*, and which by those of sane mind is de-

nominated *Evil* and *Wrong*. A very different opinion has, however prevailed; and it has been conceived that the terror of example would deter lunatics from following the dictates of their distempered minds: and many worthy and pious persons who have been the staunch supporters of the dignity of our species, have maintained, that the Deity never so far abandons the being fashioned in his own likeness, and to whom he has imparted a ray of his intellectual light, as to deprive him of the power of discriminating between right and wrong. To such assumptions, unsupported by reason, and clashing with daily experience, the reader will not expect a serious reply—they must have originated in minds more confident of the perfection and endurance of the intellect, than grateful for its possession.

It is not the object of these pages to shelter crime under the pretence of insanity; or to suppose that some degree of derangement must exist in the mind of the perpetrator:—on the contrary, it is believed, because every day furnishes instances, that men of the highest attainments and most lucid faculties will deliberately commit acts of turpitude,—foreseeing the consequences, and feeling the criminality of the act. But, it would be as much the subject of regret and against the law, that a human being, under a delusion which he firmly believed, and in the persuasion that he was acting from the immediate influence or instigation of the Divine command, should undergo the sentence of the law to the disgrace of his family:—as that science should ever attempt to contaminate the

source of justice, by shielding criminality under the garb of disease.

Reasons should be assigned for the medical opinions given on examination in court.

It has been stated in a former part of this tract, that the medical evidence, in order to impress and satisfy the tribunal before which his testimony is given, should not merely pronounce the party to be insane, but ought to adduce sufficient reasons as the foundation of his opinion. For this purpose it behoves him to have investigated accurately the collateral circumstances. It should be enquired if he had experienced an attack at any former period of his life?—if insanity had prevailed in his family?—If any of those circumstances which are generally acknowledged to be causes of this disease had occurred? as injuries of the head, mercurial preparations largely or injudiciously administered—attacks of paralysis—suppression of customary evacuations, &c. It should likewise be ascertained, if previous depression of mind had prevailed, resulting from grief, anxiety or disappointment—and it should not be neglected to collect any written documents; as iusane persons will very often commit to writing their feelings and opinions although they may suppress them in discourse.

Boundary line between Crime and Insanity.

There appear, however sufficient criteria to discriminate crime from insanity, although it must be confessed, and such has been the opinion of distinguished legal authority, that they have often seemed to be intimately blended; yet there is a partition which divides them, and it is by such well defined interposition that they are to be separated: for madness—clear and unequivocal insanity, must be established by the

medical evidence. It is not eccentricity, habitual gusts of passion, ungovernable impetuosity of temper, nor the phrenzy of intoxication,* but a radical perversion of intellect, sufficient to convince the jury that the party was bereft of the reason of an ordinary man.

Notwithstanding the medical evidence may be incapable, *totidem verbis*, to give a clear definition of madness, so as to be suited to the conception of all persons, and to comprehend the various shapes of this disease, on account of the various notions affixed by different persons to the abstract terms he may employ ; yet it is always in his power to state such perversions of thought—such projects—and such conduct, contradistinguished from that which all men hold to be rational, as shall leave no doubt on the minds of those who are to appreciate his evidence, that insanity exists: and if the person be really insane, it must be from the ignorance or neglect of the medical practitioner, if he do not satisfactorily establish his de-

Possible to describe a case of Insanity.

* A broad distinction should be made between the immediate and remote effects of intoxication. A man is not held guiltless who perpetrates a crime during the state of intoxication. He *voluntarily* introduces into his system a stimulus which augments his ferocity, diminishes his moral affections, and overshadows his reason. But the usual effect of this stimulus is temporary, he awakes from his debauch, rational, and commonly drags after him the heavy chain of reflection. It is however equally true that this single excess may be continued into permanent insanity: he may remain for many months in a state of mental derangement, and during the prevalence of his disorder may be compelled to forego all intoxicating beverage.—If such person after the elapse of several weeks from the commencement of his disorder, should, under its influence, commit a fatal outrage, no system of jurisprudence would connect the violence with the cause which originally produced the disease.

rangement, provided his opportunities of visiting and conversing with the patient have been sufficient.

Murder by
an insane
person
usually
owing to
delusion.

In those cases, where insane persons have deliberately destroyed others, there has been some existing and prominent delusion which has been fully believed to be *True* and *Good* and *Right*, which has constituted the motive, and urged on the miserable victim of this delusion, to the accomplishment of his purpose. Lord Erskine, in the fewest words, has most impressively comprehended this subject. "*In cases of atrocity, the relation between the disease and the act should be apparent.*" And again, "*I think as a doctrine of law, the delusion and the act should be connected.*" With the lunatic, the object to be attained, has seldom been adequate to the hazard of the enterprize, nor has the motive been proportionate to the violence committed: in the majority of instances, some previous intimation of the intended attack has been communicated, if the object has been accessible; and the warning itself has usually borne the stamp of a deranged intellect. These distempered minds have never inflicted violence for private emolument, or personal advancement, but have been persuaded, that they are selected from the mass of mankind to confer exemplary justice, and to ameliorate the condition of their species. The motive for the injury inflicted, has generally been virtuous and honorable in the deluded imagination of the maniac. It is true, that on most occasions, there has been the utmost subtilty of contrivance and deliberate execution of the projected mischief, whether it has been direct-

ed against others, or exerted for their own destruction. The execution of the project so far from being unwise, has usually deceived and astonished the wisest; but the principle, the firm belief, the motive to action, has been the “stuff which dreams are made of.”

There is another form of this disorder under the influence of which some insane persons become highly dangerous; but which has not been hitherto sufficiently noticed, although it deserves the fullest consideration. As several instances of this state have fallen under my own observation, I shall beg to relate two or three cases, with as much brevity as may adequately suffice to convey the facts. It has been already remarked, that some insane persons who have recovered the proper direction of their intellects have thoroughly remembered the particulars of their diseased state:—in the instances to be related, they have retained no trace of their disorder, nor any of the circumstances which occurred during its continuance.

A very powerful man, above the ordinary stature, ^{Cases.} who in his youth had been subject to epileptic attacks, and frequently to intervals of sullen abstraction, which increased after the epileptic fits had subsided, became suddenly furious, and during the transports of his disorder, destroyed two children and a woman. For this act, there appeared to be no motive. He was ordered to be confined, where he continued until his death. For many years during this seclusion, I had constant opportunities of seeing and conversing with him. He was ordinarily in a very tranquil state, and

did not discourse irrationally ;—indeed there was no particular subject on which his mind appeared to be disarranged ; nor were there any persons against whom he entertained an aversion. Much of his time was passed in reading, which he said afforded him great consolation. On many occasions, I endeavoured to draw from him some account of the motives which induced him to destroy the persons above-mentioned ; but he uniformly and steadily persisted that he had no recollection whatever of such occurrence. He said, he understood he had done something which was very wicked, and for which he was confined ; and which he had no doubt was true, from the respectability of the persons who informed him of his crime ; but he thanked God he had no more memory of what had passed, than if it had been committed in his sleep.— During the years of his confinement, he had many furious paroxysms ; and in order to be fully satisfied of the truth of his asseverations as to his want of recollection during these attacks, he was once bled at the commencement of the paroxysm, although with considerable difficulty, and on another occasion cupped, when its violence was subsiding,—yet when he was restored to his ordinary state of tranquility, he neither recollected the persons who were present, nor the operations which had been performed. Of the same class of mental affection was the case of a young lady, who became insane in consequence of having experienced some severe disappointments. She attempted to destroy herself in various ways, and was therefore obliged to be strictly restrained ; but to

others, she manifested no evil intentions. When spoken to, she returned correct answers, although she never began a conversation. During the day, she sat apparently sullen and abstracted, and seemed to take no notice of what was passing. After the elapse of three weeks, as she was sitting in her usual manner, she uttered a shriek, appeared for a few moments in a state of alarm and confusion, and suddenly recovered. Of her repeated attempts at suicide, she had not the slightest recollection. When I visited her the following day, she received me as a perfect stranger; and was not conscious she had ever seen me before; and during several subsequent interviews, in order to be certain of her recovery, I was persuaded she did not retain the slightest remembrance of any of the circumstances of her malady. A third case of this nature lately occurred. A young man with hereditary predisposition to insanity, his mother and grandmother having been so disordered; in consequence of severe losses, was seized with a paroxysm of furious madness, which continued without abatement for four months. At the expiration of three months he had a considerable mortification on the lower part of the back, which required surgical attention during three weeks. When the sore was healed, he was removed to another situation for the treatment of his insanity, where he perfectly recovered. After his complete restoration, he neither recollected the asylum where he was first placed, the disease of his back, nor his removal to the situation where he ultimately regained his reason.

Notions of
Right and
Wrong do
not belong
to the pre-
ceding ca-
ses.

To the states of mind above described, the question of good and evil can in no way apply; because these persons have wanted all recollection of their state, and of any act perpetrated; which implies that they were unconscious of any motive urging them to its commission; and which, being unremembered, renders them incapable, as moral agents, of contemplating the *Right* or *Wrong* of the act previous to its execution. It is likewise well known, that even idiots, who are ordinarily tranquil, and apparently harmless, will occasionally burst into paroxysms of fury, and deal indiscriminate destruction to those around them, frequently without the slightest cause, and certainly without premeditation:—and whose inferior scale of intellect does not enable them to give a reason for their actions. These states have been mentioned, that they may be recognized by the medical practitioner, and become known to the advocate, in order that he may apply them to the existing law.

Counter-
feited In-
sanity.

Finally, it is necessary to observe that insanity may be counterfeited by the criminal, in order to defeat the progress of justice;—and with this view, may attempt to impose on the medical practitioner. During the course of my experience, I have witnessed only two attempts of such imposture, and in both instances, the deception was so clumsily executed, that it required but little knowledge of the disorder to detect it. To sustain the character of a paroxysm of active insanity, would require a continuity of exertion beyond the power of a sane person;—they do not keep up the deception, when they suppose themselves

alone and unwatched ;—the assumed malady then disappears, and the imposture is re-commenced when they are in the society of others. They are likewise unable to prevent sleep. If they endeavour to imitate the passive form of this malady, which is an attempt of considerably greater difficulty, they are deficient in the presiding principle, the ruling delusion, the unfounded aversions, and causeless attachments which characterize insanity—they are unable to mimic the solemn dignity of systematic madness, nor recur to those associations which mark this disorder ; and they will want the peculiarity of look, which so strongly impresses an experienced observer.

[In counterfeited insanity, the pulse will be natural ; in real insanity it is generally more excited than in a healthy state : Rush's *Lecture on Medical Jurisprudence*, Philadelphia, 1811, page 369, has the following : T. C.]

“The knowledge of this fact has once been applied with success in the administration of the criminal law of the United States. One of the two men who were condemned to die for treason, committed against the general government in the western counties of Pennsylvania in the year 1794, was said to have lost his reason after sentence of death had been pronounced upon him. A physician was consulted upon his case, who declared his madness to be feigned. General Washington, then President of the United States, directed a consultation of physicians upon his case. Dr. Shippen, Dr. Samuel P. Griffitts, and myself, were appointed for that purpose. The man

spoke coherently upon several subjects; and for a while the state of his mind appeared doubtful. I suggested the propriety of examining his pulse. It was more frequent by twenty strokes in a minute, than in the healthy state of the body and mind. Dr. Shippen ascribed this to fear. I then requested that the pulse of his companion, in guilt and in fear, might be felt. It was perfectly natural in frequency and force. This discovery induced us to unite in a certificate, that the man, who was only supposed to be mad, was really so; in consequence of which his execution, as well as that of his companion, were suspended for two months; in which time the popular clamour for their lives so far subsided, that they were both pardoned by the executive of the United States.

“Having mentioned the case in which persons should be considered as incapable of disposing of property, or committing crimes, I shall now take notice of certain morbid states of the mind in which this should not be the case. These are

“1. Where the mind is deranged upon one subject only. It is necessary in this case that the subject of derangement should be unconnected with property or morals. I shall illustrate this remark by two or three examples. A certain Simon Browne, a dissenting clergyman in England, believed for many years before he died that God had annihilated his soul; and yet he discovered no defect of understanding upon any other subject. I ask, would it have been proper to prevent this man from disposing of his property? Again, we are told, in the memoirs of

Count Maurepas, that one of the princes of the Bourbon family supposed himself to be a plant; and after fixing himself in his garden, called upon his servant to water him. Notwithstanding this strange alienation of mind, he was sensible in conversation upon all other subjects, and remarkably correct in the management of public and private business. There would certainly have been no reason why this person should not have disposed of his property, or why he should not have suffered the penalty of a breach of the criminal law of his country.

“Once more. A gentleman of worthy character became my patient some time ago, who was melancholy, from a belief that all his friends treated him with neglect or ridicule. Upon the subjects of property, politics and religion, he conversed with his usual good sense and correctness. To relieve the anguish of his mind, from the supposed cruelty of his friends, he destroyed his life. His will, made a few days before his death, and written with his own hand, bore every possible mark of a sound mind. The nature of his derangement should have mitigated his punishment, had he taken away the life of one of his supposed enemies instead of his own; for a more poignant injury can hardly be conceived of, than ridicule, especially by a former friend.

“In each of these cases, the sanity upon all subjects, except those which have been mentioned, was uniform, and alike correct at all times; but we sometimes meet with persons equally sane upon all subjects, except one, in whom a word, or an action, that

revives the single subject of derangement, never fails to involve the whole mind in disorder. More observation than I possess, is necessary to determine whether such persons should be admitted to the same judicial privileges with persons who have, under no circumstances of association or irritation, ever discovered signs of general madness.

“2. There is a state of mind called “Dimance” in France, “A Bee in the Bonnet,” in Scotland, and “A Kink in the Head,” in England, and in this country; in which the faculties of the mind are unusually excited, and perform their offices with preternatural rapidity, and sometimes with a want of relationship in the association of ideas. Such persons should possess all the privileges of citizens with respect to property, and should expiate, by their sufferings, their violations of the criminal laws of their country.

“3. General weakness of intellect, bordering upon fatuity, should not prevent a man disposing of his property, nor exempt him from punishment for the commission of crimes, provided he has discovered in his intercourse with the world, a knowledge of the use and value of money, and has constantly acted under the influence of what are happily called “natural motives” in all the relations of life. The will of Lord Ely was wisely and justly affirmed upon these principles in the British house of lords, in the year 1775.

“4. To this head belongs, in the last place, that state of mind in which there exists a weakness or partial loss of memory. It is possible a man may forget the names, and number, and even the faces, of

his children, and yet not forget that they are the lawful heirs of his property. It is possible he may forget to call his different coins by their appropriate names, and yet retain a perfect knowledge of their number, denominations and uses. He may, moreover, forget the laws of his country, and not forget the laws of God. A sensibility to the latter often exists, and even increases with a total insensibility to the former. I have conversed with many old people who had outlived their knowledge of every thing human; but who retained a lively recollection of the scriptures, and a strong sense of moral obligation. Such persons should be considered as entitled to all the benefits, and subject to all the penalties of the civil and criminal laws of our country."



It now remains to treat of that morbid condition of intellect, which requires the interposition of the law ^{Commissions of Lunacy.} to protect the person and property of the party so affected.* The general reasoning which has been adopt-

* It has been observed that the finding a commission is like signing the death-warrant of an individual: it certainly consigns his person and property to the management of others appointed by the chancellor. But it should be fully understood that this process is exclusively a process of law, and resorted to by the relations, or trustees for the insane person. The medical practitioner has no interest whatever in this legal instrument—on the contrary, he is generally a loser by the finding of the commission, which ordinarily implies (though improperly) a confirmed state of disease, rendering less necessary medical advice and attendance.

ed concerning insanity, in criminal cases, will equally apply to the present subject ; but there are some particular considerations deserving attention in this part of the enquiry. The members of the medical profession have long and anxiously endeavoured to frame a definition of insanity ; which is an attempt in a few words, to exhibit the essential character of this disorder, so that it may be recognized when it exists ;—these efforts have been hitherto fruitless, nor is there any rational expectation that this desideratum will be speedily accomplished. The lawyer has taken a different view of the subject : he has been little solicitous to become acquainted with the physiological distinctions of disordered intellect, or the causes producing such state :—these he has confided to the medical evidence to explain. His enquiry has been directed to ascertain if such state of mind prevails, as actually disqualifies the particular person from conducting himself, or managing his affairs, and he expects from the medical evidence, sufficient proofs of such incompetence. To this condition of intellect, when satisfactorily demonstrated, the law applies its remedy and protection. This incapacity of conducting himself, or of managing his affairs, arising from a morbid state of intellect ;—whether it be from perversion of mind or imbecility, is in the estimation of the lawyer, equivalent to a definition of insanity, and perhaps it is the best that can be furnished.

In many instances, the insanity of the person is so clear, so evident and demonstrable, that it is immediately acknowledged by the commissioners and jury ;

—in such cases the medical practitioner has an easy duty to perform. There are, however, occasions where the state of the person's mind involves considerable doubt, and creates much difficulty in determining: and in these equivocal and embarrassing circumstances, the skill and experience of the physician must furnish the documents and reasons for the decision of the jury. He is presumed, in consequence of his previous attendance on the patient, from the repeated conversations he has held with him, and from an attentive observation of his conduct, to be fully informed of the state of his mind: and as the commission is commonly granted by the medical affidavit of the party's lunacy, it is a natural expectation that such medical evidence should be competent to prove to the extent he has deposed on oath. The gentleman who compose the jury, and whose province it is, to determine on the lunacy of the party, may not be acquainted with the different species of insanity, nor possess any considerable knowledge of the physiology of the intellect; yet they are entitled, and fully able to exercise their judgment, their honest and plain sense, on those opinions and that conduct which characterize an insane mind, and which disqualify the person so affected, from having the management of himself or of his affairs. It is the duty of the medical evidence, to become acquainted with his prevailing opinions, and also with his propensity to act on them, to ascertain his capricious partialities and unfounded resentments:—and whether he meditates his own destruction, or seeks to take away the life of another.

Either of these propensities originating purely from insanity, both for the safety of the patient and of the community, claim the protection of the law. Although the commissioners and jury, have a right to expect from the medical evidence, a full development of the patient's condition of intellect, yet it has not unfrequently occurred, that even medical persons have so widely differed concerning the mental state of an individual, that one party has deposed to his sanity, and the other has testified to his madness: if, therefore, such contrariety of opinion should exist between those persons who are supposed most competent to detect insanity, it cannot diminish our confidence in the decision of an intelligent and impartial jury.

It may here be proper to notice, that in the criminal court the testimony of others sufficient to establish the insanity of the prisoner. Under a writ de Lunatico Inquirendo, superadded to the testimony of others, the person supposed to be insane, is usually produced before the commissioners and jury, and by them examined, in order to confirm or invalidate the evidence which has been adduced, and to satisfy their minds that he is a lunatic at the time of their enquiry. Although there is much fairness and impartiality in the examination of the patient by the commissioners and jury, to ascertain by actual enquiry that his state of mind tallies with the evidence deposed: yet it sometimes occurs, that the patient, fully aware of the proceedings, will by subtlety endeavour to defeat them. He will artfully conceal his real opinions and even affect to renounce such as have been deemed proofs of

his insanity, and on many occasions he has been so skilfully tutored as to foil the united penetration of lawyer and physician. It is on such occasions that the sagacity and experience of the medical practitioner are demanded, and it will in some instances occupy a considerable time to institute such examination as shall suffice to unravel the real state of his opinions. It is nearly impossible to give any specific directions for conducting such examination as shall inevitably disclose the delusions existing in the mind of a crafty lunatic; but in my opinion, it is always to be accomplished, provided sufficient time be allowed, and the examiner be not interrupted. It is not to be effected by directly selecting the subjects of his delusion, for he will immediately perceive the drift of such enquiries, and endeavour to evade, or pretend to disown them:—the purpose is more effectually answered by leading him to the origin of his distemper and tracing down the consecutive series of his actions and association of ideas:—in going over the road where he has stumbled, he will infallibly trip again. If in a case of actual insanity, the medical practitioner, from inattentiveness, mistake, or want of experience should fail to expose the real condition of the patient's intellect, and he should be found not lunatic, he would be set afloat, to pursue the dictates of his perilous volition; he might, uncontrolled, dissipate his property, and reduce himself and family to beggary:—if his life were insured, if he subsisted on an annuity, or held a commission in the naval or military service, he might wander and destroy himself,

and thereby deprive his successors of their immediate support or expected benefit:—or he might commit some outrage for which he would be arraigned in a criminal court. The record of having been found “not lunatic,” by a jury legally constituted to enquire into the state of his mind, would be the strongest bar to a plea of insanity in a criminal court, who after such proceedings, would be little disposed to credit the theories of medical metaphysicians.

It is not necessary to enter on an investigation, or to enumerate all the particular states of mind which may be comprehended under the terms Insanity, Madness or Lunacy, but it is a subject of grave and important enquiry to ascertain what degree of mental derangement, or imbecility, ought to disqualify an individual from being the master of his person and property. It has sometimes occurred, that persons evidently under mental derangement, have for months continued to transact their affairs with prudence, and have conducted themselves quietly in society. Notwithstanding the disordered state of their ideas, they have not obeyed the impulse, nor followed the direction of their insane opinions, and have forbore to act to their own detriment or to the annoyance of others. Several of such instances, have fallen under my own observation: but the greater part have eventually destroyed themselves, or become so furious that seclusion was absolutely necessary. It is therefore impossible, under a state of existing insanity, to predict the future conduct of an individual thus affected, or to

become responsible for the continuance of his harmless disposition.

In the discussion of this question, it should be kept in view, that the medical evidence is called upon to state, in the first place, that the person is of insane mind: and secondly, that in consequence of such state, he is incapable of conducting himself or of managing his affairs. If it be a matter of general and legitimate inference, that a person of insane mind is consequently unable to the management of himself and affairs; the proof of his insanity necessarily involves his incompetency: if it be supposed that, although of insane mind, a man may be capable of conducting himself and his affairs, it is then incumbent on the medical practitioner, to show from the nature and tendency of his particular insanity, that he is unfit to be trusted with either. Such prediction must necessarily be the result of copious experience, and formed in the way of a general conclusion, and it should be understood that this opinion of his incompetency regards his existing condition of mind at the time of the legal enquiry. Although a person might labour under a variety of mental infirmities, which by medical practitioners, might be technically denominat- ed false perception, delusion, hallucination, &c. still, if these symptoms did not go to the extent of disqualifying him from conducting himself and managing his affairs, such symptoms in a legal point of view, would probably not amount to insanity, nor justify the restraint of a commission of lunacy. It is true, such symptoms seldom occur, without producing the

incompetency which the law regards as the warrant for its restraint, and fulfils the legal interpretation of insanity.

Unsound
mind, what.

The employment of terms in an ambiguous sense, has ever been the bane of philosophy, and the obstacle to its advancement. Without the meaning of important words be accurately defined, no general reasoning can be established. On some occasions, the term *Unsound Mind*,* has been introduced, and considerable emphasis has been laid on it by lawyers; as possessing an intrinsic meaning, and designating a peculiar state of morbid intellect, not *precisely similar* to insanity, but of equivalent effect in depriving a person of the management of himself and affairs. It is of the utmost importance that the term *unsound mind* should be fully and accurately considered. Had this term originated from medical persons, it is most probable they would, at least have endeavoured to explain it; but it is of higher descent, and adopted by those luminaries of the law to whom we look up with confidence and respect. The force and extent of the term “unsound mind,” are described in the luminous judgment of the present Chancellor,† on a recent case. Of this learned exposition of the law, every medical practitioner should be informed, as it will serve to guide him, when he is called to give his

* It will be seen from the course of Chancery Decisions, that the main question referred in Inquests of Lunacy, is, whether the person in question be *compos mentis*, or *non compos mentis*; of sound mind, or of unsound mind, from whatever cause. That is, whether he has sufficient capacity to manage his own affairs. T. C.

† Lord Eldon. T. C.

deposition on the state of a patient's intellect. In the judgment adverted to, his Lordship observes, "I have searched, and caused a most careful search to be made into all the records and procedures on lunacy, which are extant. I believe, and I think I may venture to say, that originally, commissions of this sort were of two kinds, a commission aiming at, and enquiring, whether the individual had been an idiot *ex natiuitate*, or whether, on the other hand, he was a lunatic. The question, whether he was a lunatic, being a question, admitting in the solution of it, of a decision that imputed to him at one time, an extremely sound mind, but at other times an occurrence of insanity, with reference to which, it was necessary to guard his person and his property by a commission issuing. It seems to have been a very long time before those who had the administration of justice in this department, thought themselves at liberty to issue a commission, when the person was represented as not being idiot *ex natiuitate*, as not being lunatic, but as being of *unsound mind*, importing by those words, the notion, that some of the party was in *some such state*, as was to be contradistinguished from idiotcy, and as he was to be contradistinguished from lunacy, and yet *such* as made him a proper object of a commission *in the nature* of a commission to enquire of idiotcy, or a commission to enquire of lunacy. From the moment that that had been established, down to this moment, it appears to me however, to have been at the same time established, that whatever may be the degree of weakness or imbecility of the party—whatever may

be the degree of incapacity of the party to manage his own affairs, if the finding of the jury is only, that he was of an extreme imbecility of mind, that he has an inability to manage his own affairs; if they will not proceed to infer from that, in their finding upon oath, that he is of *unsound mind*, they have not established by the result of the enquiry, a case upon which the Chancellor can make a grant, constituting a committee either of the person or estate. All the cases decide, that mere imbecility will not do; that an inability to manage a man's affairs will not do, unless that inability and that incapacity to manage his affairs, amount to evidence that he is of unsound mind; and he must be found to be so. Now there is a great difference between inability to manage a man's affairs, and imbecility of mind taken as evidence of unsoundness of mind. The case of Charlton Palmer in which this was very much discussed, was the case of a man stricken in years, and whose mind, was the mind of a child, it was *therefore in that sense*, imbecility and inability to manage his affairs which *constituted* unsoundness of mind." This is the law, the principle established for the regulation of medical opinion; and it will be immediately perceived, that the burthen of this ponderous machine, turns on the explanation which may be given to the term "unsoundness of mind." As far as the term unsound is employed and understood by medical persons, it signifies a morbid condition of the human constitution, or a morbid state of some particular organ, and this state of unsoundness is inferred to exist from parti-

cular and well marked symptoms, which experience has detected to indicate constitutional or local morbid affections. If this term be transferred to mind, it is equally incumbent on the person who employs it, to point out the particular symptoms or mental phenomena which characterize this unsoundness of the individual's mind. It ought to be well considered that our knowledge of the intellectual faculties, and of their operations, is very limited; and that the progress of the philosophy of mind, has borne no proportion to the rapid advances which have been made by Anatomy, Physiology and Pathology, in the structure, offices and morbid alterations of the body. All that we can know of the mind of an individual, is from the communication of his ideas in terms or signs which are conventional between us, in order to be intelligible, or from his actions. Thus by discourse, which is imparted to the ear, or by intelligible characters, presented to the eye, which convey his thoughts, and by his conduct, we are enabled to estimate the character of his mind. The lawyer has been accustomed to receive mental phenomena as the only evidences of the state of an individual's intellect: he would be dissatisfied, and in my own opinion, properly, with any bodily symptoms, such as peculiar conformation of the head, excessive determination of blood thereto, protrusion or glistening of the eye, increased pulsation of the Carotid arteries, &c.—these may be indications to medical persons in the treatment of insanity, but they do not constitute any direct evidences of mind. On the scale of intellectual capacity, there is

an extensive range; some are eminently gifted, and others so sparingly supplied, that they are unfit for the common purposes of life, and require to be protected. These are Idiots ex Nativitate. If it be attempted to teach them, they are deficient of the capacity to acquire sufficient to manage the property they may be possessed of, or to conduct themselves. Is it here incumbent on the medical practitioner to state that this natural deficiency of intellect arises from unsoundness of mind, or that the unsoundness is the effect of such deficiency: in order that the individual may experience the wise, politic, and humane protection of the law?—It frequently occurs, that those of extensive capacity and high attainments, are by an apoplectic or paralytic attack, suddenly deprived of their intellectual faculties, and reduced to the state of an idiot ex nativitate. Is it in this case necessary, for the legal protection of the party, to insist on the hypothesis of unsoundness? Is it insufficient to detail the miserable remnants of his former state, and exhibit to the jury the shocking spectacle? Must there be a compulsion to infer, that this abolition of the faculties amounts to evidence of the unsoundness of his mind? We are acquainted with the mind from the phenomena it displays; but the cause of these phenomena is to us inscrutable: by discourse and conduct, we infer its soundness, by the same evidences, its unsoundness must be detected. This appears, however, to militate against the dictum of law, which states, “Whatever may be the degree of weakness or imbecility of the party—whatever may be the de-

gree of incapacity of the party to manage his own affairs, if the finding of the jury is only that he was of an extreme imbecility of mind, that he has an inability to manage his affairs: if they will not proceed to infer from that, in their finding upon oath, that he is of *unsound mind*, they have not established, by the result of their enquiry, a case, upon which the Chancellor can make a grant constituting a committee either of the person or estate." Is not this extreme imbecility of mind and inability to manage his affairs, the only evidence of his unsoundness of mind? if not, what further is required? for it is not necessary, according to law, that he should be a lunatic. If these be insufficient to constitute him of *unsound mind*, then the inference is clear and warranted, that he may be of extreme imbecility, and have an inability to manage his affairs, and, notwithstanding all this, may be of *sound mind*: and if *unsoundness* be *some such state*, as may be contradistinguished from idiotcy and lunacy, then an idiot and a lunatic may be of *sound mind*.

In the case referred to of Charlton Palmer, who was a man stricken in years, and "whose mind was the mind of a child, it was *therefore in that sense* imbecility and inability to manage his affairs, which *constituted* unsoundness of mind." Here, the imbecility and inability to manage, *did* constitute the unsoundness: the words *therefore, in that sense*, evidently refer to his mind being "the mind of a child," which is perhaps a mode of expression more familiar than accurate; as no one could properly infer, that the mind of a child was necessarily unsound.

If the word unsoundness be particularly examined, and for that purpose we consult Dr. Johnson's Dictionary, we shall find it employed in three different senses, but no one in which it implies any particular condition of mind:—the adjective unsound has a dozen different meanings, but none in the sense of vitiated intellect. From authority therefore we obtain no information. If we proceed to its derivation, we shall find that our Anglo-Saxon ancestors by the word *SUND* (whence our *SOUND*) meant precisely the Latin *SANUS*. *UNSUND* Anglo-Saxon, or unsound English, would therefore be of equivalent meaning with the Latin *INSANUS*.

In those instances where the word unsound is used in our own profession, it designates something cognizable by the senses. An unsound tooth bears in its external character or internal feeling, sufficient evidence of its unsoundness. A fistulous sore may appear to be healed, but the skill of the surgeon can readily detect that it is unsound at the bottom: and both the dentist and the surgeon can give sufficient reasons, as the foundation of their opinion. Unsound doctrine differs from that which is orthodox, in certain particulars or essential points, which constitute its unsoundness.

Superadded to these, let the facts be examined as they are recorded in nature and experience. Of the human intellect there can only be three states: sound mind, insanity, and idiotcy. Of these states there may be different degrees. The mind of one man may be relatively more sound than another; his attention

may be more fixed and enduring—his memory more retentive; his judgment may be clearer, and possess superior vigour; and his imagination shall exhibit a brighter flame. Notwithstanding this exalted capacity, the individual who is removed many degrees lower on the scale, may possess sufficient soundness for the purposes of his nature:—he may be capable to conduct himself, and likewise to manage his affairs. Insanity is another condition of the human mind, and of this state there are various forms and different degrees; and when a morbid state of intellect prevails, under which a man cannot conduct himself, which implies that he is not safe to be trusted with his own life, nor with the life of another—that in his motives to action he cannot discriminate between right and wrong, or without motive is irresistably impelled to act, and therefore becomes a being, not responsible for his conduct, and is incapable of managing his affairs—such state implies the necessity of being guarded by the instrument of the law: and this state of insanity, which includes all the various terms of madness, melancholy, lunacy, mental derangement, &c. necessarily evinces the unsoundness of the individual's mind. Lastly, idiotcy, which whether it be ex nativitate, or supervene at any period of life, implies a deficiency of intellectual capacity, to an extent which renders him incapable of the mental offices, which enable a man to conduct himself, and manage his affairs, and which of necessity infers the unsoundness of his mind, and the propriety of legal protection.

These are the states of the human intellect which have a distinct and separate existence, and which are capable of being described from their manifestations; there can be no intermediate state, and certainly no abstract or independent unsoundness: which, when it is acknowledged, must, on the one hand, be derived from insanity, or from idiotcy on the other. But the law has established a different system, and it is observed that “It seems to have been a very long time before those who had the administration of justice in this department, thought themselves at liberty to issue a commission, when the person was represented as not being idiot *ex nativitate*, as not being lunatic, but as being of unsound mind; importing by those words, the notion, that the party was in *some such state*, as was to be contradistinguished from idiotcy; and as he was to be contradistinguished from lunacy, and yet *such* as made him a proper object of a commission, *in the nature* of a commission to enquire of idiotcy, or a commission to enquire of lunacy.” Accepting this with great humility as the law, it is equally dutiful to endeavour to discover on what facts or experience it was established: and the only clue to this investigation, is found in the words “*in some such state*,” as was neither idiotcy nor lunacy, but “*such*” as disqualified him from exercising the volition of an ordinary man, by an instrument “*in the nature*” of a commission applicable to idiot or lunatic.

If this undefined unsoundness of mind can thus dispossess the individual of his liberty, and of the use of his property, under the issuing of a commis-

sion, it performs sufficient; but it may be respectfully enquired, what would be the general opinion, or that of the commissioners of the College of Physicians, if a medical practitioner were to give a certificate to confine a person in a madhouse, declaring he was neither an idiot nor a lunatic, but of unsound mind?—And what attention would the judge and jury give to a physician in a criminal court who came to prove that a man who had committed murder was not responsible for the crime, because he was neither an idiot, or a lunatic, but of unsound mind; importing by these words, that he was in *some such state* as was to be contradistinguished from idiotcy, and as he was to be contradistinguished from lunacy? After having taken this view of the subject, which is the result of extensive experience in this department of the profession, and of diligent enquiry into the nature of the human mind; it appears to me, that the medical practitioner may safely and conscientiously infer unsoundness of mind, if such term be legally insisted on, whenever a morbid condition of intellect prevails, to an extent which deprives the mind of its natural and healthy offices, by producing an incapacity or inability in the individual to conduct himself and manage his affairs.

From the observations which have been detailed, concerning unsoundness of mind, there is, according to legal construction, an evident connection between unsoundness and imbecility. My object, however, is not the interpretation of law, but the exposition of nature and fact. It alone interests me to describe the phenomena of mind—to compare the performance

of its offices in a sound and morbid state—and to measure by the accredited standard of common sense and intelligible reasoning, the degree of imbecility, inability, or incapacity, which disqualifies an individual to conduct himself and manage his affairs.

Imbecility
of mind.

The necessity of legal interference and protection in cases of insanity, having been sufficiently adverted to; it now remains to show that a person from imbecility of mind may be equally incompetent to the management of himself and affairs. The mind may be weak from birth, or it may at any period of life, become enfeebled by disease. Like the body, it has its regular periods of growth and development, of maturity and declension: but they are not periodically connected. An unusual precocity of mental vigour has been occasionally remarked; and in advanced age the wisdom of the man frequently survives the infirmities of the body. Men are relatively competent, wise or foolish, learned or ignorant, compared with others. On the scale of intellectual being, we may place the philosopher at the summit, at the bottom, the degraded idiot; and in the population of this world, the intermediate range is adequately filled up. There are many considerations which demand attention on this important subject. To state that certain acquirements were to be attained as the proof of competency, would be an imperfect criterion. Much might be acquired *memoriter*, which the learner would not understand: a very feeble intellect, insufficient for the purposes of human affairs, might be trained to answer correctly, a string of known questions, without being

able to comprehend or adapt them to any useful purposes. It should likewise be considered that the different departments of employment require very different degrees of mental capacity. A person might be able to manage duly a small income, who would be inadequate to the distribution of a large revenue: a man might be competent to keep a shop, who would become overwhelmed and distracted in the learned professions: a country squire might gallop hospitably through life, without being able to discharge his duty as a magistrate. It is not the want of acquirement, that should disqualify an individual; many persons, from distaste, indolence, from neglect of parents and guardians, remain lamentably ignorant in the current acceptation of the words—they are unable to write or read, they are unacquainted with the symbols which represent numbers: yet with these deficiencies they are enabled to conduct themselves in the world. Speech itself is not absolutely necessary; because a person born deaf, and consequently dumb, if he understood the signification of characters, called letters, and their composition, termed words: if he comprehended that such words were significant of such things, so that when the object was presented, he could select the appropriate word, and alternately when he saw the word could point to the thing:—moreover, if he had learned to form these characters, he would possess a sufficient substitute for speech, and become capable of intelligible communication—as a correspondent he would be on a level with him who enjoyed the utmost fluency of speech. So bountiful has the author of na-

Capacity
of acquire-
ment.

ture been in the construction of the human frame, that when one avenue to knowledge has been impervious, it has been transmitted through the medium of another; sufficiently to constitute the person an intelligent being and a moral agent. It is the *capacity* of acquirement to which we are to direct our investigations. If a scale were constructed, and a certain degree fixed as the point of competency, the circumstance of his not having arrived at such point, ought not to disqualify the person. It ought to be *determined* that he is unable to acquire so much. It is true, a man may be ignorant, as far as certain acquirements, which we term learning, are concerned, and which form the basis of ordinary education; he may know nothing of what has passed in the world, which we denominate the history of our species; but he may be an attentive observer of the objects in nature, and know fully the purposes to which they are applied.—Such a man, although ignorant, does not want the capacity to acquire, and therefore ought not to be disqualified. It has occurred to me in many instances, to be consulted concerning persons whose minds have been naturally weak, or enfeebled by disease; and it always appeared that by patient enquiry, a satisfactory estimate of their capacity might be instituted.—It would extend far beyond the limits of the present work, to detail the whole of the circumstances connected with this subject; but it may be briefly stated, that the person exercising his judgment, ought particularly to ascertain the power of his attention; as his knowledge of objects, and his memory of them, will

depend on the duration of his attention ; and it will be indispensably necessary to investigate his comprehension of numbers, without which the nature of property cannot be understood. If a person were capable of enumerating progressively to the number ten, and knew the force and value of the separate units, he would be fully competent to the management of property. If he could comprehend that twice two composed four, he could find no difficulty in understanding that twice, or twain ten, constituted twenty. This *numeration* also presumes he comprehended that so many taken from ten, or subtracted, which is the converse, would leave so many as the remainder—without such capacity, no man, in my own opinion, could understand the nature of property, which is represented by numbers of pounds, shillings and pence.—Indeed, the capacity to acquire this knowledge, seems to constitute the pre-eminence of man in the creation, as an intellectual being. The same imbecility of mind is often produced in adults, and in those of advanced age, by paralytic or epileptic attacks, and from various affections of the brain, and requires the same accurate investigation, to determine on the competency of such persons, to be entrusted with the management of themselves and affairs.

From the foregoing remarks, it appears indispensably necessary, that some criterion should be fixed as the test of sufficient capacity. In the case even of an idiot *ex nativitate*, it must be ascertained that he is really an idiot ; and the same process of investigation, which enables us to determine this fact, will apply to

the intermediate gradations of human capacity. All idiots are not of the same degree of intellectual depravity; some possess more memory than others, and display a talent for imitation;—they will whistle tunes correctly, and repeat passages from books, which they have been taught by ear; but they are incapable of comprehending what they repeat.

What imbecility of intellect will amount to unsound mind.

There is a degree of intellect, although mean, when compared with superior minds, which will enable a human being to take charge of himself, and transact his affairs; and there is also an inferior degree, which incapacitates him from the performance of those offices: and patient examinations at repeated interviews, will enable the observer to ascertain his competency, and to afford a satisfactory evidence of the state of his mind: for the mind of every man may be gauged, both as to its acquirements and capacity. By imbecility, therefore, which may be either natural, or induced by a variety of causes, it will be seen, that I mean a state or degree of mental incapacity equivalent to idiocy—a degree which renders him incompetent to the management of himself and affairs:—and which degree, by observation and enquiry, may always be ascertained. This degree, satisfactorily measured, does, in my own opinion, amount to unsoundness of the individual's mind: as it includes all the mental evidences which constitute unsoundness.

Capability of making a will.

Connected with these subjects, there is a point of considerable importance, and of frequent occurrence, which yet remains to be examined, and with which the present essay will conclude: namely, the state of

mind, under which, a person may legally dispose of his property by will. Medical practitioners are often called upon to attest the competence or incapacity of particular persons to the performance of this act, which requires a state of disposing mind. In many instances it is deferred to that extremity of bodily disease when recovery is hopeless. To urge its propriety or necessity at an earlier period, often excites alarm or despondency, and such state of feeling, the medical attendant, in many disorders, is unwilling to excite. As a person of liberal education, and from the enquiries he has made during his attendance on the patient, he is justly presumed a proper judge of his competence to dispose. This instrument is termed a will, which does not simply imply an act of volition, but the volition of a sound or sane mind; because a lunatic, of all men, is most the creature of volition. The same conditions of intellect which have been heretofore enumerated, as exempting him from punishment, and disqualifying him from the management of his affairs, would, as far as a medical opinion may prevail, equally disable him from disposing of his property: such disposal involving the most important part of its management.*

There is great, perhaps insuperable, difficulty in considering this subject in a general point of view. It is presumed, that no person, actually under a com-

* Dr. Rush in his Introductory Lecture on this subject, makes a very important observation: after insisting on the necessity that every Physician should be acquainted with the legal forms of testamentary disposition, he urges the propriety of recommending a will to be made in cases of danger, not to the patient himself, but to his friends and relations. T. C.

mission of lunacy, could legally dispose of his property by will, because such instrument confides the management of his affairs to others. But in the judgment before cited, and where the law is expounded by the highest and most competent authority, it appears, that the legal definition of a lunatic implies a person interchangeably visited by insanity and reason. "The question whether he was a lunatic, being a question, admitting in the solution of it of a decision, that imputed to him at one time *extremely sound mind*, but at other times an occurrence of *insanity*, with reference to *which*, it was necessary to guard his person and his property by a commission issuing."

In the insane mind, these parentheses of reason, have been technically denominated a lucid interval, which in a former work* I have endeavoured to explain, as far as such state becomes obvious to the medical practitioner. Its legal force I do not pretend to calculate. According to the legal interpretation of a lunatic, he ought, in common justice, at those bright periods when he possesses an *extremely sound mind*, to be lawfully allowed the free and valid exercise of his volition. But having noticed in the work above mentioned that the term *interval* is extremely indefinite, as applied both to time and space, it is the province of the law to define its duration and extent. As a constant observer of his disease for more than twenty-five years, I cannot affirm that the lunatics with whom I have had daily intercourse, have mani-

*Vide Observations on Madness and Melancholy, pages 44 and 210.

fested alternations of insanity and reason. They may at intervals become more tranquil, and less disposed to obtrude their distempered fancies into notice. For a time their minds may be less active, and the succession of their thoughts consequently more deliberate;—they may endeavour to effect some desirable purpose, and artfully conceal their real opinions, but they have not abandoned or renounced their distempered notions. It is as unnecessary to repeat that a few coherent sentences do not constitute the sanity of the intellect, as that the sounding of one or two notes of a keyed instrument, could ascertain it to be in tune. To establish its sanity it must be assayed by different tests, and it must be detected to be as lucid on the subject of those delusions, which constituted its insanity, as on topics of a trivial nature. But the law alone must determine whether it will consider an individual sane act as a lucid interval, and infer soundness of *mind*, which is the abstract term for all intellectual phenomena, and implies the aggregate of the ideas of the individual, from a single and successful effort.

If the performance of a sane act by an insane person should be deemed valid, let the converse of the proposition be allowed. Many who have been of accredited soundness of mind have in some instances made such a testamentary disposition of their property as has astonished those who have survived them. Without apparent reason or provocation they have left their property away from their nearest relations to public institutions, officers of state, or to those with

whom they were very slightly acquainted.* Has this single act, independently of other concurring or collateral evidences of derangement, borne the imputation of insanity? Would the uniform tenor of sane and consistent conduct, for many years, both prior and posterior to such act, be set aside for this individual deed? If it should, then long existing insanity ought to be overlooked by a single act of consistency.

The reader must be aware that this is general reasoning, as no particular case has been the subject of discussion. The search has been directed to a broad and general principle, without prying into subtil distinctions;—It is reasoning as far as a knowledge of the human intellect, in its sane and disordered state, may be expected from medical opinion; but it presumes not to dictate to that constituted authority denominated law, which in all civilized nations, has been wisely established for the protection and happiness of the community.

* Die, and endow a College, or a Cat. Pope. Thelusson's will.
See Rusli's Introductory Lectures, p. 393. T. C.

NOTE. (T. C.)

I consider it as a point now settled among the latest and most approved writers on Insanity, that there is no such thing as a disease of the MIND. We know nothing of the mind, or of the intellectual faculties, but through the intermedium of the body. *Nil unquam fuit in intellectu, quod non prius erat in sensu.* If we had no eyes we should have no sensations or ideas of seeing: if no ears, of hearing: if no nose, of smelling: if no tongue or palate, of tasting: and so on. That is, without the organs of sense, we should have no *sensations* from the immediate impressions of objects on our senses, nor any *ideas* from the reminiscence of past sensations. But without sensations and ideas, there can be no comparison of sensations

and ideas, or reasoning: no conclusions from such comparison, or judgment: no determination thereon, or will, volition: no recurrence or recalling (that is, no presence voluntary or involuntary) of past sensations or ideas, for by the postulata they never existed; and therefore no reflection. That is, no evidence of mind or intellect; that is, no mind or intellect; for that, whereof, we have no evidence of its existence, does not exist to us. For the physiological facts that are the foundation of this train of reasoning, I refer to every writer on insanity within ten years past, particularly the writings of Mr. Haslam; to Hartley's Essay on Man; to the work of Cabanis, Rapport du morale avec le physique de l'homme, and the Ideology of Destut Tracey. I know too, that this was the opinion of the late Dr. Rush; as indeed is manifest throughout his Treatise on the Diseases of the Mind. Hence it follows, that Insanity, is essentially a disease of the bodily organs, and that the cure, if at all, must consist in the cure of a bodily disease. This opinion gives hope of cure in this dreadful disorder; but if Insanity were a disease of the mind as it is called, it is in vain to apply to physicians or to medicine, for who can prescribe to a mind diseased? How can a dose of Glauber's salts operate on the Soul?

In all cases whatever, legitimate reasoning can only proceed, by applying the analogies of cases that we are well acquainted with, to cases that are dubious: according to the poet, "How can we reason but from what we know?" Now, the cases of Insanity in its various degrees that have been decidedly traced to organic derangement, or some form of disease—and that have been cured by acting in conformity with this theory, are so numerous, that we have a right to apply them to cases of Insanity generally. Indeed, unless upon this supposition, the exhibition of medicine, and the erection of Lunatic Hospitals, are acts of rank folly.

Insanity may be considered either as *Mania*, or furious madness: *Melancholia*, or melancholy madness: *Idiocy*, or folly and incapacity: *Lunacy*, or derangement with lucid intervals, periodical or otherwise: for many diseases have a tendency to assume periodicity.

Mania, *Melancholia*, and *Lunacy*, may arise, and have been traced to

1. Original, organic malconformation.
2. Organic derangement of the brain and nervous system, from exciting causes acting on predisposition, hereditary or induced.
3. Organic lesion of the brain itself.
4. Morbid action in the brain or nervous system, originating therein.
5. Inflammation of the brain, its coats, membranes, or vessels:
 - } acute, producing *Phrensy*.
 - } chronic producing *Mania*.
6. Morbid action of the brain and nervous system arising from sympathy.
 - a—With distant parts in an inflamed state, producing *delirium*, usually with intervals of reason.

b—With diseased liver.

c—With diseased stomach.

d—With diseased bowels, worms.

7—Metastasis of chorea s. viti, erisipelas, cutaneous eruptions, measles, hysteria.

8—Or Morbid action arising indirectly,

From excess of alcoholic liquors.

From poisonous narcotics.

From obstructed evacuations, as menses, hemorrhoids, issues, &c. or repelled eruptions.

From febrile diseases, as apoplexy, gout, puerperal and uterine affections, &c.

From venereal excesses, a common cause.

9. Passions of love, grief, fear, anger, intense study.

10. The morbid prevalence of some ideas or trains of ideas, producing belief or persuasion out of the natural and usual course of thought and reflection, I include these mental affections as they are termed, among bodily disorders, because in fact, all these mental phenomena, are resolvable into bodily affections as Hartley, Cabanis, Condillac, Tracy, and Haslam, have shown.

Idiocy, may arise from

Original malconformation, hereditary or otherwise.

The debility induced by previous disease; or by old age.

Excess in the indulgence of natural appetites, particularly the venereal.

The Goitre, as in the cases of Cretins.

Habitual intoxication, with liquor, with opium, or other narcotics.

In the examination therefore of a Physician as an expert, upon questions of Insanity, Idiocy and Lunacy, the medical witness ought to be examined whether he has traced or endeavoured to trace, the mental derangement, to bodily disorder, so as to ascertain the probability of recovery; whether there be lucid intervals; how it is distinguished from eccentricity, hypochondriasis, &c.

No Physician can give satisfactory evidence, who does not bear in mind these circumstances; and weigh the effect of these causes when they may have occurred. In ascribing intellectual or mental phenomena, to bodily organization—and in tracing sensations and ideas to motions in the brain, or sensorium of the nervous system, which are there felt or perceived—I pretend to advance no opinion as to the power, faculty, or being, that there feels or perceives these impressions or motions in the nerves and sensory; whether the result of organization, or distinct therefrom. Rush on the Diseases of the Mind, 2d edition, p. 10. 11. T. C.

DIGEST

OF THE

LAW RELATING TO INSANITY.

BY THE EDITOR, T. C.

THE following summary of the law connected with Insanity, may be of use in this country. (Vide Collinson* on the Law of Lunacy, 2 vol. 1812.)

In England, Insanity becomes a legal question in the following cases :

1. When a certificate of Insanity, is required under the acts of Parliament, relating to mad-houses, before a patient can be sent to one of those receptacles. Luckily we have none of these establishments as yet among us; and I hope the public hospitals will long supersede the necessity of them.

2. When insane persons require to be committed to

* Where Collinson is cited, it is as an authority for cases not elsewhere reported. T. C.

the care of their friends, for the security of their persons and their properties. This is done by an application to the chancellor to appoint a commission of lunacy, which he does in character of representative of the king, who by royal prerogative had the guardianship of insane persons.

3. When civil contracts are disputed on the ground of insanity in one of the parties.

4. When insanity is set up as a defence to an indictment for a crime committed.

Should private mad-houses be established in this country, they will require the early vigilance of the legislative authority, to prevent the abuses which followed their institution in England. The keepers should be prohibited, under severe punishments, beyond mere pecuniary penalties, from receiving any patient, unless accompanied with a certificate of insanity from two graduated physicians, countersigned by a magistrate; the establishments themselves, should be at all times open to the inspection of a meeting of three magistrates, without previous notice to the keeper; and a known physician should be considered as a necessary daily visitor of the establishment, whose name and abode should be registered with a clerk, prothonotary, or other known officer, of some court of justice.

As to the second head, viz. *Commissions of Lunacy*.

In England, these are never granted, but on application to the chancellor, who exercises the royal prerogative in this respect, and who never delegates his authority, even to the Master of the Rolls. 2 Atk. 554.

3 Atk. 635. Ex pte. Hall, 7 Vez. jun. 261. 2 Dick. 558.

In the United States, commissions are usually granted in pursuance of the practice in England, on application to the court of chancery. In Pennsylvania, where we have no court of chancery, they are granted on application to the Court of Common Pleas. The process is this: a petition, accompanied by affidavits, in support of the alledged insanity, is presented to the court, praying that a commission may issue. If the affidavits are sufficient in the opinion of the court, a commission is directed to three or five persons as commissioners, who are directed to cause a jury to be summoned by the Sheriff of the county; with which jury, the commissioners sit as a court; and hear the evidence adduced. Regularly, the lunatic, and the persons who have the care and custody of him, ought to be served with notice of the application, in the first instance: for they may either oppose the application, or offer to the court their own list of commissioners: *Rex v. Daly* 1 Vez. sen. 269. *Ex pte Cranmer* 12 Vez. jun. 455. Although these cases relate to notice of executing the commission, the reason of them will apply to every stage of the proceeding. The application to the court, may be made by any near relation of the lunatic, or by creditors, 1 Collinson, 377. or by any person connected with him in pecuniary interest, or by civil contract. *Ex pte Ogle* 15 Vez. jun. 112. Or, perhaps, even by a stranger, as it is for the good of the lunatic.

If a committee should be appointed, the court will

allow the expense of the application, because it is always considered as in favour of the lunatic: but if the finding be “of sane intellect,” or to that purpose, then the court has no fund under its controul, out of which it can direct the expenses to be paid. *Ex pte Ferne*, 5 Vez. 450. 832.

In a commission of lunacy, the question is *compos mentis*, or *non compos mentis*; of sound intellect and capable of governing himself and managing his worldly concerns—or of unsound intellect, and incapable of governing himself and managing his worldly concerns. From whatever cause lunacy may arise, *the point* is, *sound mind*, or *unsound mind*. The return must be such an one, as will admit of being traversed or denied. It is not sufficient, on such a return, to say the party is so far debilitated in his mind, as to be incapable of the general management of his affairs, and has been in the same mind for six months last past. On such a return, a new commission must issue. (A commission acted on, cannot be sent back on *melius inquirendum*: there must be a new one, *ex pte Roberts*, 3 Atk. 6.)

There are innumerable instances of commissions, the objects of which, were clearly, not lunatics, in the strict sense of the word, but persons disordered from causes that could not (from their nature) admit of lucid intervals. Old age, for instance; a glimmering of understanding only left; a state produced by no sudden cause, but the gradual effect of time on the mind. *Ex parte Cranmer*, 12 Vez. jr. 446. Herewith seems to agree the definition of Lord Coke, *Co. Litt.* 246 b,

and Beverley's case, 4 Co. Rep. 123, who states the question to be, whether the party be or be not, *non compos mentis*, from whatever cause. The question is not, whether he be amens, demens, furiosus, lunaticus, fatuus, stultus, but whether he be or be not, *compos mentis*, of sound mind. The old writs indeed, direct the inquiry, whether the party be *idiota et fatuus a tempore nativitatis suæ, an ab alio tempore, a quo tempore, qualiter, et quo modo, et si lucidis gaudeat intervallis*; but the question now is, simply, of sound or of unsound mind; whether from sickness, grief, accident, old age (as in Beverley's case) intoxication, or whatever other cause. *Ridgeway v. Darwin*, 8 Vez. jun. 45. *Ex pte Cranmer* 12 Vez. jun. 453. In the matter of *Barker Johnson's* Ch. Rep. 232. Upon a purview of these cases, the following seems the best form of a commission. The form commonly used, varies from the older forms; and there is no reason why the form to be used, should not be rendered still more conformable to late decisions.

The Commonwealth of Pennsylvania, to A. B. Esq. of, &c. Attorney at Law, C. D. and E. F. of, &c. merchants, Greeting. Know that the President of our Court of Common Pleas, of County, and his associates have assigned you to enquire by the oath of fifteen good and lawful men of the said county, for that purpose to be summoned by the Sheriff thereof, whether J. L. of the said County, is a person of unsound intellect, incapable of governing himself and managing his worldly affairs, or not so; and if he be so, from what time he hath been so, and whether his being un-

sound of intellect, hath been caused by idiocy from his birth, or any subsequent time, or by lunacy continued, or by lunacy which admits of lucid intervals, or by epilepsy, or any other sickness, or by wounds or bruises, or by grief of mind, or by any other mental affection, or by intoxication in the use of drugs or liquors, or by the infirmities of old age, or by any other and what other cause, according to the evidence and testimony that shall be adduced hereon, before you and before the said jury; also whether the said J. L. so being unsound of intellect, hath aliened any of his lands and tenements, goods or chattels, when, how, and to whom, and what lands, tenements, goods, and chattels yet remain to the said J. L. and where the same are situate, and who is his nearest heir.— And of all such your proceedings, you are to make return without delay, under your hands and seals, unto the President and associate judges of our said court of Common Pleas. And to enable you so to do, we command the said Sheriff of County, at such time and place as ye shall make known unto him, that he cause to come before you fifteen good and lawful men of said county, to inquire into the premises: and you are also hereby authorized to issue your summons, or warrant if need be, to cause to come before you and the said Jury of Inquiry, not only the said J. L. but such other persons, whose testimony may be necessary to ascertain the truth respecting the premises. Witness, &c.

In England, the commission is usually directed to five commissioners, or any three of them, and may be

so here. The person first named in the commission, is a Barrister at law; and it belongs to him to address the jury, and explain to them the nature of the proceedings and their duty. The Sheriff is also required to summon twenty-three jury men, of whom the verdict of twelve is valid; but it is expedient, that what is meant to be for the good of the insane person and his estate, should be done at as little expense as the nature of the case will admit; and so many jurors, seem a needless increase of expense, as well as a needless tax on the community. The commission ought to be executed as near to the place of abode of the lunatic, as conveniently may be, 34 Ed. 3 ch. 13, 14. 8 H. 6 ch. 16. 23 H. 6 ch. 16. 1 H. 8 ch. 8. Ex pte Ferne, 5 Vez. jun. 450. Ex pte Southcote Ambl. 112. 2 Vez. sen. 405. Ex pte Hall, 7 Vez. jun. 261: and the lunatic should be brought up; for which purpose, the commissioners should issue their warrant to the persons in whose custody he is: and, although this be discretionary with the commissioners, it seems a kind of evidence too important to be neglected. Ex pte Southcote, Amb. 112. 2 Vez. sen. 405. But if the lunatic be abroad, or carried away, the commission may nevertheless proceed. Ex pte Ferne. 5 Vez. jun. 450.

To insure accuracy therefore, the jury ought to be instructed, that according to the evidence adduced before them, they are to find the supposed lunatic, J. L. to be, either a person of sound intellect, and capable of governing himself, and managing his worldly affairs; or else, that he is a person of unsound intel-

lect, and incapable of governing himself and managing his worldly affairs; by reason,

a. Of idiocy from his birth, or subsequent to his birth.

b. Or, by reason of Lunacy, wherewith he appears to have been first afflicted at such a time, and which has continued from that time, to the time of the present finding of the jury of inquest, with or without lucid intervals, as the case may be.

c. Or, by reason of sickness, wounds, bruises, grief, immoderate use of intoxicating liquors, old age, or other cause, stating as near as may be, the commencement of his becoming unsound of intellect.

It is the duty of the commissioners to hold their inquest openly, and receive any testimony offered, relevant to the point at issue. 1 H. 8 ch. 8. 1 Vez. sen. 270.

If witnesses do not attend on the summons of the commissioners, the court will make an order upon them to attend: *Ex pte Lund.* 6 Vez. jun. 784. But the better course appears to be, to give the commissioners power of issuing their warrant in such case, in the commission: for the court may not be in session; and at any rate, the trouble, delay, and consequent expense, is greatly enhanced, by rendering such an application to the court necessary.

There seems to be very little anxiety in the English practice, to save expense to the parties. The commissioners are empowered to issue their warrant, to bring up the lunatic. 2 Vez. sen. 405. 1 P. Wms. 702, and why not to bring up refractory witnesses?

Proof of insanity is not to be made out by ramb-
ling through the whole life of the person, but must
be applied to the particular transaction, and at the
time in question. *White v. Wilson*, 13 Vez. 89. *Atty
General v. Parnter*. 3 Br. ch. ca. 441.

In England, 1 Hen. 8 ch. 8. directs the inquisition
and finding of the jury to be indented; one part to be
kept by the foreman of the jury, the other given to
the commissioners: who are to return it to the
court, under their hands and seals, within a month.

Cases of inquisitions quashed for uncertainty in the
finding of the jury, are 2 Inst. 405. *Ex pte. Read* 3
At. 169. *Ex pte Freake*, Bl. Co. Ch. 47. *Ex pte Harv-
ey*, 3 At. 169. *Ex pte Ashton*, ib. *Ex pte Halse*, 2
Vez. sen. 405. *Ex pte Barnsley*, 3 At. 168. *Halsey's
case*, 3 At. 173. *Wall's case*, ib. *Rodgers v. Fraser*,
3 Mod. 43. 1 Ver. 10. *Ex pte Cranmer*, 12 Vez. jun.
445. The prerogative of the Crown in England, as
to the estates of idiots (matter of *Fitzgerald*, 2 Sch.
& Lef. 436.) is not applicable to America. *Of un-
sound mind*, is a good return. *Dennis v. Dennis*, 2
Saund. 352. *Ex pte Pouncefort*, 3 At. 170. *Ex pte
Cranmer*, 12 Vez. jun. 455. *Carew v. Johnson*, 2
Sch. & Lef. 304. Whether a return of lunacy be
good, without stating whether the lunatic enjoyed lucid
intervals, has been so often doubted (*Ex pte Wragg*,
and *Ex pte Ferne*, 5 Vez. jun. 450.) that it is safer
to return the fact. For suppose a return of lunacy
simply; and an alienee should wish to traverse the
return; he cannot do it effectually, for the return does
not exclude alienation during a lucid interval; and

he will be driven to his issue at law, *Hall v. Warren*, 9 Vez. jun. 605. A person born deaf and dumb, may be compos. 2 Dickens. 268.

Notwithstanding the commission directed to the Commissioners, orders that the jury shall find, and the commissioners shall return the particulars of the estate and effects of the insane person, yet that enquiry is seldom gone into before a jury; but statements authenticated, are laid before the chancellor. This appears to me incorrect; for if the commissioners and the jury may disobey at their discretion, one part of the commission, they may disobey the rest: either omit it in the commission, or return the facts as the commission directs.

If a commission be quashed, a new one must issue (according to the English practice) which is very inconvenient and expensive. Lord Erskine in *ex pte Cranmer*, 12 Vez. 454, was strongly inclined to direct a *melius inquirendum*; and I do not see why we should not adopt that frugal practice, though he felt himself too much tramelled by precedent to do it. *Ex pte Roberts*, 3 Atk. 6.

Proceedings, and a commission in England, will not give authority over estates in Ireland. 1 Sch. & Lef. 301.

For proceedings, where the finding is against evidence, see *Ridgeway v. Darwin*, 8 Vez. jun. 65.

Of *traversing the commission*. By the English Statutes, it is allowed as a matter of right, to traverse the inquisition, at any time, even though the chancellor should be satisfied with the return. *Ex pte*

Wragg, and *Ex pte Ferne*. 5 *Vez.* jun. 452. The traverser must give security. *Rex v. Barlow*. 5 *Vin. Abr. Sup.* 317.

Traverse must be tried in England, in the King's Bench. 34 *Ed.* 3 ch. 14.

Traverse rarely allowed, after a second finding on a second commission, in conformity with the first. 3 *At.* 116. 3 *Bac. ab.* 528.

If a traverse be not tendered immediately on the return of the commission, the insane person and his estate will be put in custody, for his own sake. 3 *Bac. ab.* 528. *Ley.* 26, 27. but this is discretionary. *Ex pte Ferne*, 5 *Vez.* jun. 452. An insane person found idiot, cannot traverse by attorney; he must appear in propria persona. For he can do this, if he be not idiot. *Smith's Case*, 3 *At.* 7. *Anon. Mos.* 71.

Although other insanes may appear by attorney, the chancellor may, if he thinks fit, direct them to appear in person. 2 *Atk.* 7. *Amb.* 112.

A committee having custody of the person or property of a lunatic, may be restrained from interfering or acting, until a traverse tendered, be decided; and the lunatic may be ordered to remain under the controul of a physician. Per *Ld. Ch. Erskine* in *Ludlam's case*, Feb. 1807. *Collinson on Lunacy*, vol. i. p. 174.

No traverse after recovery of the insane. 3 *Atk.* 312.

Alience of non compos may traverse; *R's case* 15 *Vin. Ab.* 141. or may join in traversing, in which

case he will be bound by the finding, but not otherwise. 3 Atk. 7.

A person who has contracted to purchase or to sell property, may traverse. Ex pte Morley. 9 Vez. jun. 478. · Ex pte Hall, 7 Vez. jun. 261.

Whether a stranger may traverse? Ex pte Ward, 6 Vez. jun. 579.

No direction can be made concerning costs, where a traverse is successful; for when the commission is thus superceded, there is no fund plac'd under the controul of the chancellor, whose jurisdiction is thus excluded. Ex pte Ferne. 5 Vez. jun. 452.

The chancellor will make a provisional order as to the lunatic and his property, pending a traverse. In the matter of Hely, 3 Atk. 635. Where a traverse will not answer the purpose, a person interested against the return of the commission, may contest it either by suit at law or in equity, according to the circumstances of the case. Thus, for instance, how far the lunacy of a partner, will amount to a reason for dissolving the partnership, will depend on the degree and probable duration of the disorder. See 2 Vezey and Beames, 303. Waters v. Taylor.

Insanity once established, proof of recovery is on the party. White v. Wilson, 13 Vez. 89. Atty. Genl. v. Parnter, 3 Br. ch. ca. 441.

Of the appointment of Committees. Any person interested, may propose committees: the choice is discretionary with the court. (In England, it is always referred in the first instance, to a master in chancery.) Although the custody of a lunatic be directed by the

will of a parent, this will not take away the controul of the Lord Chancellor. Ludlow's case, 2 P. Wms. 636.

One committee may be appointed for the person, as the nearest of kin; another for the estate, as the heir at law.

If one person of a committee dies, there must be a new committee appointed. Eq. ca. ab. 583. for the grant is joint.

In the present day, the ancient practice which rejected the heir at law or the person next in remainder as Committee of the person of the Insane, is obsolete. Dormer's case, 2 P. Wms. 263. 7 Vez. 591: but where interest clashes with duty, the objection is founded in the principles of human nature: and though duty might prevail in ninety-nine cases out of a hundred, the hundredth furnishes reason enough for the exclusion.

Where one of two married persons is insane, the custody is committed to the other. Lord Wenman's case 1 P. Wms. 702, open however to objections. Custody of an Insane may be committed to a feme covert. Ex pte Kingsmill, 3 P. Wms. III. but the husband is joined. Ex pte Mildmay, 3 Vez. jr. 2. Preference will be given to a female as committee of a female insane. Ex pte Ludlow, 3 P. Wms. 638.

One person usually preferable to two as a committee of the person. Ib. but this objection has not been latterly sustained.

Antipathy on part of non compos, a reasonable objection. 2 P. Wms. 637. 6 Vez. 427. Directions

will be given that the family of the Insane, and in special cases Physicians may have access at all reasonable times. In re Lord Aghrim, July 1808, 1 Collinson 229. Where a non compos may traverse, his committee may be enjoined from interfering with him. In matter of Ludlam, February 1807. 1 Collinson 230. Also, Rex v. Wright, Burr. rep. 1099. Ridgeway v. Darwin, 8 Vez. 65. 3 Burr. 1363. 6 Vez. 7.

Those who have in their power or custody the person of the Insane, will be compelled by order of court to deliver him up to the committee appointed, under pain of contempt: or he can be had up by habeas corpus. Ex pte Cranmer, 12 Vez. 455.

Allowance is discretionary with the court according to the estate and circumstances of non compos: nor will a reasonable maintenance be reduced even in favour of creditors. Ex pte Baker, 6 Vez. 8. Ex pte Chumley, 1 Vez. jun. 296. Ex pte Dikes, 8 Vez. jun. 81.

Fraud must be shewn to make committee account, to whom the whole profits are allowed for maintenance. Sheldon v. Fortescue, 3 P. W. 105. Committee will be allowed reasonable expences incurred on account of the children of non compos. Forster v. Merchant, 1 Vern. 263. 1 Collinson 243.

The court will order stock or other property to be sold for the advancement of the children of non compos: or for the maintenance of relations whom non compos is bound to maintain. 1 Collinson 244, 245. In matter of Annesley Ambl. 78.

A committee may be removed for misconduct, lunacy, and in some cases for bankruptcy, *Smith v. Bate*, 2 *Dickens*. 631. *Ex pte Mildmay*, 3 *Veaz.* jun. 2. Whatever disposition or change of property he makes, he must take care it is for the interest of the lunatic, and not of himself. *Vid.* 1 *Collinson Ch. XIX.* in toto. *Mrs. Ashe* during a lucid interval contracted marriage. Court on application refused to discharge the committee. *Equ. Ca. Ab.* 271.

It is discretionary with the Court to appoint a relation, a stranger, the heir at law, or any other, committee of the person, committee of the estate, or both. *Neale's case* 2 *P. W.* 544, but relations are preferred to strangers, and heir at law most favoured as committee of the estate, 1 *Bl. Comm.* 304.

The reasoning in *Ex pte Fletcher*, 6 *Veaz.* 427, militates against attorneys being appointed committees either of person or estate, merely in that capacity.

Where good reasons are shown, a receiver of the estate may be appointed independent of the committee, *Ex pte Billingham*, *Ambl.* 104. *Ex pte Warren.* 10 *Veaz.* 622. 1 *Collinson* 259.

Committee of estate to give bond with two sureties, in double the amount. 1 *Collinson*, 262. 2 *Veaz. sen.* 674, 675. This bond delivered up on death of the committee. It may be put in suit on default made. *Ex pte Grimstone.* *Ambl.* 706.

If committee stands in need of more ample specific powers for the management of the estate, as to sell, to lease, to mortgage, to cut timber, to make repairs, &c. &c. the court will allow such powers, on petition

and reasonable cause shewn, but not without. 1 Col-
linson, 274. Oxenden v. Lord Compton, 2 Vez. jun.
272. Ex pte Ludlow, 2 Atk. 407. Anon. 10 Vez.
104. Foster v. Merchant, 1 Vern, 262. Blunt v.
Clitherow, 6 Vez. 799. Ex pte Morton 11 Vez. 397.
Ex pte Hilbert, 11 Vez. 397. Newport's case, 2 Vez.
jun. 72. Ex pte Grimstone, Ambl. 708. To sell? see
Ex pte Smith, 5 Vez. 556 and Ex pte Dikes, 8 Vez.
79. but court is authorized now to direct a sale where
needful, by 43 Geo. 3 ch. 75.

Conveyance ordered, where non compos is trustee,
4 Geo. 2 ch. 10. In matter of Tuffnel, 1 Collinson,
287. Ex pte Otto Lewis, 1 Vez. 298. Ex pte Gil-
lam, 2 Vez. jun. 587. Committee may fulfil contracts
of non compos, under 43 Geo. 3 ch. 75.

Committee must fulfil conditions and avoid forfei-
tures. Ex pte Anandale Ambl. 80. Oxendon v. Ld.
Compton. 2 Vez. jun. 72. Co. Litt. 206 b.

Committee may institute suits. Hob. 215. Hutt. 16.
2 Wils. 130, and defend suits, Westcomb v. West-
comb. 1 Dick. 235. 2 Dick. 460.

May avoid disposition of property, made by non
compos. 3 Bac. Ab. 539. 43 Geo. 3 ch. 75.

So if a legacy be given to non compos on impossi-
ble condition, as to take holy orders, committee may
apply it otherwise. 5 Vez. 463.

Committee may maintain the children of non com-
pos. 1 Vern. 262. but should apply to the court first.

No compensation allowed to committee, beyond
maintenance; but in cases that call for it, maintenance

may be increased on petition. Annesley's case, Ambl. 78. Anon. 10 Vez. 104.

Where an estate is very large, or committee infirm, or resident at a distance, a receiver may be appointed. In the matter of Birch. Aug. 1808. 1 Collinson, 299. This may be done on application either of the committee himself, or other persons.

Committee must account, at least once a year. Balance to be paid into court. Chargeable with interest for balances on hand, at 4 per cent. or to the extent of profit derived. Harrison's ch. Pract. 386. Ex pte Hilliard, 1 Vez. jun. 90. Ex pte Chumley, 1 Vez. jun. 156. Pocock v. Reddington, 5 Vez. 794. Ex pte Cotton, 1 Vez. jun. 156.

He is accountable for the profit he makes of balances in his hands, either before the chancellor, or he may be charged at law, as bailiff or trustee.

The master, without a special order, cannot allow for repairs, improvements, fines on renewal of leases, salary of agents or receivers, maintenance or advancement of children, payment of children's debts, costs. 1 Collinson, 306. But such an order will be made on petition, if reasonable.

If committee does not pass his accounts yearly, he shall not have costs. Ex pte Clarke, 1 Vez. jun. 296. Notice of passing accounts to be given to the sureties, to the next of kin, and to relations entitled to distributive shares of the personal estate, in case non compos should die intestate. 1 Collinson 307.

Committee should pass his accounts without delay, after the death of a surety, or on death of non compos.

So the executors, &c. of committee should pass his accounts on death of committee. 1 Collinsou, 309.

Committee should pass his accounts, on recovery of non compos. Ib.

Information may be exhibited against a committee, by Atty. General. 2 Dickens. 748.

Non compos is entitled on recovery, to a superseas of the commission, but it must be applied for in his own name. Ex pte Stanley, 2 Vez. sen. 25.— Cannot traverse the inquisition on recovery. Ex pte Roberts, 3 Atk. 312.

Cannot *contract marriage*, till declared of sound mind by the court. 15 Geo. 2. ch. 30.

The chancellor will not inspect a lunatic said to be recovered, to enable him to *make contracts*: but will order the contract to be so made, as to enable a court of law to determine on its validity. Ex pte Wright, 1 Vern. 155. For the objection may be taken “Lunatic of record” and “recovery,” may be replied: this ought to be tried at law.

Death of non compos. If non compos die before inquisition held, it cannot be holden, 4 Co. 127 a.— Orders previously made, do not abate by death of non compos; Ex pte Armstrong, 3 Br. ch. ca. 238. nor is the jurisdiction of the chancellor, terminated by the death of non compos, for proceedings may be terminated, notwithstanding his death, that had commenced during his life. Ex pte M'Dougal, 12 Vez. 348. and petitions may be preferred, relating to the property of the lunatic, even after his death. 2 Dick.

552. *Wigg v. Tyler*, and several cases in *Collinson*, I. p. 320—322.

Of superseding a Commission. It may be superseded, if it be made appear that the party was improperly found non compos. *Skin. 5.* If this be suspected, a caveat may be entered against the return, which will be heard before any committee be appointed: but the commission will not be superseded, unless upon very strong grounds, including the testimony of physicians. *Harr. Ch. Pr. 383.*

Non compos, petitioning in his own name, may supersede the commission, if there be cause for so doing. *Ex pte Stanley, 2 Vez. sen. 25.* He must attend the hearing in person. *1 Fonb. Eq. 65.* *Ex pte Bampton, Mos. 78.*

The chancellor may suspend the supersedeas. *Ex pte Earl Ferrers. Mos. 382.* or direct a traverse, if sanity be doubtful: or, even an issue at law, after an unsuccessful traverse. *1 Collinson, 326.* *Ex pte Holyland. 11 Vez. 10.*

The medical affidavits ought not to be general, but full and explicit, as to the detail of the grounds on which the opinion is founded. *1 Collinson, 327.*—Those who live with non compos, proper witnesses. *3 Br. Ch. Ca. 444.*

Any person aggrieved by a commission, may petition to supersede it. *Ex pte Hall, 7 Vez. 264.*

If commission be irregularly executed; or if a traverse be irregularly and inefficiently tried, a commission may be superseded. *Ex pte Roberts, 3 Atk. 6.* *1 Collinson, 328.*

If commission remain unexecuted for an unreasonable time. Anon. 2 Atk. 52.

Of actions and suits by and against Insane Persons.
An idiot must bring his suit in his own name, jointly with some other person, and appear and defend, personally. Co. Litt. 135 b. 2 Inst. 390. So, non compos must bring suit and defend in his own name, but his committee may be joined with him. 1 Sid. 125. Hob. 215. Noy. 27. 1 Goldsb. 197. Ch. Ca. 19.

Statute of limitations, runs only from the recovery of non compos. 21 Jac. 1 ch. 16. 1 Tidd. 16.

If suit be brought against non compos, after inquiry, the return may be pleaded or suggested from the court of chancery. Ca. in Parl. 153.

Non compos (except in cases of idiocy) may defend by attorney, 4 Rep. 124 b.

A debtor non compos, when arrested, may nevertheless, by the absurd cruelty of British decisions, be confined in jail, Kernot v. Norman, 2 T. Rep. 390. 1 Tidd. 184. Nutt v. Verney, 4. T. Rep. 121. In conformity with these decisions, bail will not be discharged, even though they are prevented from surrendering their principal by a commission of lunacy. Ibbotson v. Ld. Galway, 6 T. Rep. 133. Perhaps, however, the time for surrender might be enlarged.—Cock v. Bell, 13 East. 355.

On motion, service on the person having non compos in custody, deemed service on non compos. Selton's prac. 174. Burr. Rep. 190.

Non compos, not a defence to an action at law.—1 Collinson 347.

Non compos may be Bankrupt. *Ib.* Anon. 13 *Ve.* 590. May sue in equity either by himself or others : under what circumstances, see *Smith v. Packhurst*, Ch. Ca. 112. *Atty. General v. Woolrich*, 2 Ch. Ca. 153 compared with *Viner's Ab.* XV. 134.

He or others on his behalf, must be a party to a suit instituted for his benefit. *Atty. General v. Tiler*, 1 *Dick.* 378. But where the effect of non compos being a party would be, that he would be obliged to stultify himself, he need not be personally a party to a suit. See the cases in the preceding paragraph and 3 *Salk.* 300. But it is no ground of demurrer that non compos has stultified himself. *Riddler v. Riddler*, Eq. Ca. Ab. 279.

In suits against non compos he may answer by his guardian : his committee is his guardian where a committee has been appointed. *Mitf.* 94. 1 *Dick.* 233. except in case of adverse interest, when another guardian pro lite will be appointed. *Snell v. Hyatt*, 1 *Dick.* 287.

If committee neglects to answer he may be removed. *Lloyd v. Mar.* 2 *Dick.* 460. On proof that a party is non compos, the court will appoint a guardian pro lite. *Mitf.* 95. but not otherwise, unless he be so stated in the bill, then a guardian is appointed of course. 1 *Fowl.* 477, 478. *Hind.* 251. 14 *Ve.* 172. A dumb man has been directed to answer a bill and interrogatories in person. *H. Ch.* 124. *Toth.* 140. *Wy. P. R.* 292 : but not if he be also senseless. 1 *Collinson* 357.

Bill of revivor cannot be exhibited by or against a committee for want of privity. Coop. 69.

Non compos cannot be arbitrator or attorney, nor ought he to sit as judge. 1 Collinson, 358.

Of simple contracts of non compos. Debts contracted before insanity are good, but not afterwards unless for necessaries. 1 Roll. ab. 257. 2 Sid. 55, 112.

Non compos liable to suits at law. Anon. 13 Vez. 590 and he may be taken in execution for debt and imprisoned as has been before stated: that is, he may be so in England: no where else I believe. T. C.

Formerly the Chancellor had no power to direct a sale of real estate to satisfy debts, even when liens on the land, 8 Vez. 79. 5 Vez. 556, but this power has been given by 43 Geo. 3. ch. 75.

Creditors may refuse to come in under a reference of debts, and a sale of estate ordered accordingly: they have if they please their remedy at law: but the distribution of proceeds will be for the benefit of those only who do come in. 12 Vez. 385. 1 Collinson 379.

No order can be made on a petition preferred by Creditors, after death of non compos: but if there be assets, they may file a bill to have an account taken of their demand and such assets applied to their discharge. Wigg v. Tiler, 2 Dick. 552.

A judgment creditor may file his bill against a voluntary settlement made by non compos. Colman v. Croker, 1 Vez. jun. 160.

The Chancellor will not reduce non compos to absolute want on account of creditors. Ex pte Dikes, 8 Vez. 79.

Nor will he direct the debts of a non compos to be paid unless for the accommodation of non compos. *Ex pte Hastings*, 14 Vez. 182.

Of written contracts by non compos. These are good if entered into while sane, though insanity should follow: even though they should be overreached by an inquisition of insanity, the parties may contest it, and aver that the contractor was sane at the time. *Faulder v. Silk and others*, December 9, 1811. 4 Collinson 390. For (per *Ellenborough Ch. J.*) the inquisition is presumptive only, not conclusive. *Owen v. Davies*, 1 Vez. sen. 82.

Issue directed in a doubtful case. *Hall v. Warren*, 9 Vez. 605.

All deeds and contracts made during insanity, are void. 2 Roll. ab. 728. 4 Co. 124. 3 At. 311.

But non compos has no remedy in his own name at law. *Stroud v. Marshall, cor. Ellenborough*, 4 Collinson 402. Nor in equity, because equity will not set aside the legal maxim, that a party cannot disable himself. *Beverley's case*, 4 Co. 124. It is to be hoped the absurdity of this doctrine will prevent its being considered as law here. But though the non compos cannot set up insanity, his committee after inquisition found, can. *Riddler v. Riddler, Eq. Ca. Ab.* 279. This legal objection to the plea of Insanity, did not prevail in the time of Ed. 1. (*Britton ch. 28. fol. 66.*) but was disallowed in the time of Edw. 3. 2 Bl. Comm. 291. the court of equity has always sup-

ported the legal maxim above stated. 1 Fonb. Eq. 48. Fitzherbert properly rejects the modern adherence to this legal maxim, as an absurdity, F. N. B. 202. And it has in some instances, been overruled, 3 Mod. 305. *Yates v. Boen*, 2 Str. 1164. In all criminal cases, insanity may be pleaded, nor is there any good reason to be assigned, why it should not in all civil cases. For if non compos should recover before the return of inquisition, he has no remedy against a person who fraudulently took advantage of his previous insanity to procure from him deeds or contracts in a state of mental imbecility. For if no inquisition be returned, no committee can avoid the fraud: and the legal maxim, that a party shall not disable himself, prevents the suit. This may be English law and English equity: God forbid it should be adopted here.

After the death, however, of non compos, any person may take advantage of alienations made by him, during a state of insanity. *Thompson v. Leach*. 3 Mod. 301. 3 Salk. 300, so that those who deal with non compos, render themselves liable (though not to him) to his committee, or to any other person who may be interested after his death. 3 Bac. Ab. 539.

But though no commission has issued, chancery will take cognizance on the ground of fraud. *White v. Small*, 2 Ch. Ca. 103. *Clarkson v. Hanway*, 2 P. Wms. 103. *Bennet v. Wade*, 2 Atk. 325. especially where confidence has been reposed. *Duke of Cleveland v. Osmond*, 3 P. Wms. 130. *Wright v. Proud*, 13 Vez. 136.

But equity will decline interfering in such case, if it work great hardship to the other party. *Winchcomb v. Hale*. 1 Ch. Rep. 22; but the case of *Squire v. Pershall*, 8 Vin. 169. *Powel on Dev.* 68—71 and 1 Fonb. 333, strongly militates. But see *Niell v. Morley*, 9 Vez. 478.

Where deeds are set aside as fraudulent, a reconveyance is not necessary. 2 Vez. jun. 294. unless there has been a conveyance to a third person innocent of the fraud: or unless the deeds are set aside on payment of a certain sum of money; for then the estate continues till the condition be fulfilled. 2 Vez. sen. 408.

Courts of law have concurrent jurisdiction with equity, in cases of fraud. 1 Fonb. eq. 66.

Non compos can neither grant or attorn. Co. Litt. 315 a. 6 Co. 69, *Finch's case*. Non compos may take by grant, 2 Atk. 413, and may inherit and make entry, *Bryd*. 21. but according to *Littleton*, Co. Litt. sect. 405, not if a descent be cast. But this depends on the absurd extent to which the English courts have carried the legal maxim, that no party shall disable himself.

Purchases and Feofments by non compos, are not void, but voidable; Co. Litt. 2 b. 4 Co. 123. 3 Bar. Ab. 357. 2 Roll. Ab. 728.

Non compos cannot avoid his own feoffment while insane; that is, according to the English doctrine, 4 Co. 123. Br. entr. pl. 47. though it may be avoided if inquisition be found and committee appointed. 3 Bac. Ab. 537. or by the heir.

This should be done by scire facias, where insanity is traversable. Bryd. 16.

Livery by an attorney non compos, good. Jennings v. Bragg, Cro. El. 447.

Lord Coke's doctrine of privities in 4 Co. 124, is denied in Palm. 254, and in 3 Mod. 307. See also 1 Fonb. Eq. 50.

Of Costs. Costs of prosecuting a commission allowed, unless the traverse should be successful; then the chancellor has no fund in his power. Ex pte Ferne, ante.

No costs allowed, where commission is kept long unexecuted. Anon. 2 Atk. 52.

Costs of proposing committees allowed, even when unsuccessful. 1 Collinson, 461.

A rash application of a stranger to traverse, will be dismissed with costs. Ib. 462.

Persons refusing to produce non compos on order, will be compelled to pay costs, 2 Vez. sen. 405.

Heir at law allowed costs, when he appears in behalf of the insane, or for the good of his estate, 2 Atk. 424. 3 Atk. 387. But not if he appear in an adverse character. Ib.

Solicitor has a lien on lunatic's estate for his costs. Ambl. 102. 2 Vez. sen. 407.

Of Criminal Offences. All crimes consist in the intention: but no motive or intention can be ascribed to a disordered intellect—to a person insane at the

time when he committed the alledged criminal act.— But it is not a sufficient excuse, that the alledged criminal has been formerly, or at times, insane; the insanity, to excuse him, must be distinct and manifest, at the time of the act committed; and although cunning and design may be shown in the mode of committing the act, yet if it be done under the influence clearly made out, of mental derangement, the actor ought to be acquitted. In all this, however, there is great difficulty, and apparent contrariety of decision. Maliciousness, and an almost irresistible propensity to acts of suicide or murder, are frequent among persons disordered in their intellect; and although manifestations of cunning, contrivance and design, are exhibited in the mode of committing the act, it may nevertheless be the effect of an irresistible impulse arising from a deranged intellect. Mr. Chitty, in his *Digest of Criminal Law*, refers (3 Chitty 725.) for the law on the subject, to Lord Erskine's Speech in Hadfield's case. 5 Ersk. Speeches 1.

In Lord Ferrers's case (St. Trials) he was found guilty, and executed, because although he was occasionally insane, he had capacity sufficient to form a plan and design for the murder of Mr. Johnson, and knew its consequences. Yet in Hadfield's case, who shot at the king (1800) although there were marks of design in his plan, and in his mode of firing the pistol, he was held to have committed the act under the influence of insanity; of which marks appeared just before he went to perpetrate the act. Intoxication is

clearly no excuse. This appears to have been one of the grounds for the very proper verdict of guilty in the case of Wm. M'Donnough, indicted for the murder of his wife, tried before the Sup. Court of Massachusetts, on 4th Nov. 1817. He had received a hurt on his head some years before, which rendered him occasionally furious and deranged. His disorder was always excited, even by a slight indulgence in ardent spirits: in one of his fits thus induced, he murdered his wife; was found guilty and executed. Like to this, was Bellingham's case for the murder of the honourable Spencer Percival, May, 1812. He was occasionally deranged, but found guilty, and executed.

Non compos ought not to be arraigned or tried.

Non compos acquitted, may be detained and confined. Hadfield's case, 39 and 40. Geo. 3. ch. 94.

Persons inciting non compos, are principals. Keil. 53. Dalt. ch. 95. Hawk. P. C.

I consider the following extracts from Dr. George Parkman's *Illustrations of Insanity*, Boston 1817, as greatly in point to the subject just treated.

Captain James Purrinton, of Augusta, District of Maine, a rich, independent farmer, of steady domestic habits, dark complexion, grave countenance, reserved in company, never looked in the face of persons he addressed, obstinate in his opinions, though he frequently changed his religious ones voluntarily, died a decided believer in universal salvation, often expressed anticipation of the moment when his family would be happy, and sometimes how happy he

should be if they should die at once. He was very avaricious, elated or depressed, as his affairs were prosperous or adverse. August 1805, he moved to a new farm, which he rapidly improved—He seemed happy till a few weeks of his death. The uncommon drought depressed him greatly, lest his family should suffer for want of bread, and his cattle starve.—Sunday, July 6, 1800, Mrs. P. and the eldest daughter being at church, the second daughter saw him writing a letter. Seeing he had been overlooked, he attempted to hide it. She asked him, what he had been writing? he said ‘nothing,’ and asked for his butcher-knife, saying he wanted to sharpen it. Having made it very sharp, he stood before the glass, and seemed preparing to cut his throat. His daughter, terrified, cried ‘what are you doing?’ he calmly said ‘nothing,’ and laid the knife away. This was told to his wife; she searched for the letter, and found it* July 7th. At dinner time he found her sitting in the barn weeping; she disclosed the cause; he said he did ‘not intend suicide but he had a presentment his death was near.’ Toward the close of July 8, he ground the axe; when the family went to bed, he was reading the bible; it was found open on the ta-

* *Dear Brother.*—These lines is to let you know I am going a long journey; sell what I have, and put it to interest, and my boys to trades or to sea. I cannot see my family’s distress. Put Nathaniel to Uncle Purrinton, to a tanner’s trade; James to school, till sufficient to tend a store; Benjamin to a blacksmith’s trade, or what you think best. Give them learning, if it takes all. Divide what is left. I am no more.

J. PURRINTON.

July, 1816.

ble at Ezekiel, chapter ix. July 9, at 2 A. M. his eldest son alarmed the neighbours; they found Capt. P. lying on his face, his two sons, aged 5 and 8 in bed, their throats cut; the razor on the table by his side, the axe near; in the next room, Mrs. P. aged 44, in bed, her head almost severed; near her, on the floor, a daughter murdered, 10 years old: in the other room in bed, a daughter aged 19 most dreadfully butchered; the second aged 15, most desperately wounded, reclining her head on the infant, eighteen months old, its throat cut. The eldest son was wounded, when Capt. P. attacked and dreadfully mangled the 2d, 12 years old, who attempted to escape; Capt. P. did not speak a word.

Verdict—Murder and Felonious suicide.

D. A. Phillips of Marblehead, since July 3, 1818, said all his connexions were his enemies, and wanted to poison him; became jealous of his wife, suspected his father, brother, &c. Once he asked to see his clergyman alone; fastened the door and led him to a closet: the clergyman was on his guard, and held P.'s right hand. Phillips murdered his wife, October 12, 1816. Verdict—insanity. Yet he is permitted to live at his father's.

Hadfield, who shot at the king, knocked a fellow patient in Bedlam, over the form; he died immediately.

In these three cases, the periods are distinct, in which restriction was called for. With insane persons showing propensity to do great injury, efficient

personal restraint is the only infallible preventive. While insanity continues, their mischievous disposition may be considered existing, to be called into action by unforeseen circumstances, probably not to be suppressed by motives which actuate other men. Sometimes this disposition appears in early stages of the disease and does not reappear, though the disease continue for years.

An insane man, in this state, was confined several years, for setting fire to a house. The last part of the time his food was brought to him by the keeper's little daughter, as he seemed harmless, and fond of her. At length, without apparent provocation, "he gave a fatal blow on her head with a stick of wood."

Of Widows. Widow of non compos deceased, entitled to dower. Co. Litt. 31. a.

Widower of non compos deceased, may be tenant by curtesy. 3 Bac. Ab. 534. Perk. 365.

Of Marriage of Non Compos. Non compos cannot contract matrimony, unless perhaps in lucid intervals. But if non compos marry, and having a lucid interval, the marriage is consummated, it is good. 1 Collinson, 554.

But if inquisition be had, and he be found non compos, he cannot contract matrimony, until he be declared of sound mind by the court. Ib.

A man cannot acquire any thing by marrying an idiot: the marriage is void. But a person born deaf and dumb, if compos, may contract matrimony by signs. Swinb. on Marriage. sect. 16.

To marry, or procure the marriage of non compos, is a criminal offence. *Smart v. Taylor*, 9 Mod. 98.

To marry non compos so found on inquisition, is contempt. Pre. ch. 703. Eq. Ca. Ab. 278.

Non compos Trustee or Mortgagee, may convey by his committee under 4 Geo. 2 Ch. 10.

Of Wills. Non compos may not make a will unless during lucid intervals; he must be of sound and disposing mind and memory. 4 Bl. Comm. 497. Swinb. 72. Godolp. 25. 9 Vez. 610.

The onus probandi of insanity lies on those who alledge it. Herein, it may be sufficient to prove insanity previous to making the will: for a person once insane is presumed so, until it be shown that he has lucid intervals or has recovered. Swinb. 77. Except perhaps the alledged insanity was very long ago, or for very short continuance.

If insanity be apparent on the face of the will, it is invalid. But mere imprudence will not amount to insanity. *Burr v. Duvall*, 8 Mod. 59. to this head perhaps may be referred Mr. Thelusson's will.

But it will be presumed to have been executed at a lucid interval if nothing appears on the face of it to rebut the presumption: and if it be shown that testator though occasionally insane had lucid intervals. God. 25. 9 Vez. 610.

A will made by non compos, invalid although he recover. 11 Mod. 157. If testator be intoxicated, or childish through old age, he cannot make a will. 2 Co. b. 23.

There must be a sound and disposing mind and memory. Swinb. 77.

In England under 29 ch. 2 ch. 3 and 5, there must be three witnesses to a will of real estate, and they are presumed to attest the perfect sanity of the testator. Cambd. Arg. 23.

Proof of the perfect sanity of the testator in a will of real estate, rests on the devisee: the law favours the heir at law (which is absurdity and injustice. T.C.) Wallis v. Hodgson, 2 ch. rep. 300. 2 Atk. 424. 9 Mod. 90. (The feudal reasons for favouring the heir at law do not apply in this allodial country. T.C.)

A sound and disposing mind and memory is a legal question, 6 Co. 23 b. Dawson v. Chater, 9 Mod. 90. Bransby v. Harridge, Eq. Ca. Ab. 406. Webb v. Claverden; 2 Atk. 423. 2 Atk. 324. Hence, where a will is contested by the heir at law, the question must be sent to a court of law.

If testator was perfectly aware of what he was about when he made his will, court of law will not set it aside. Bennet's case, 9 Vez. 145. Per Eyre, Chief Justice in that case, we are not to enter too minutely into questions of influence.

Even though testator may labour under prejudices not well founded, yet if he knows what he is doing, that is enough. Greenwood's case, 3 Br. Ch. Ca. 444. 13 Vez. 89.

The will of an insane person has been set aside, after forty years possession, and in prejudice of a purchaser. Squire v. Pershall, 8 Vin. 169. Powel on devises, 68—71. 1 Fonb. Eq. 333.

Where a will has been established in a court of law, equity will not direct a second trial, but under very strong circumstances, *White v. Wilson*, 13 Vez. 87.

Non compos cannot be executor or administrator, Salk. 36. usually transferred to the committee of non compos.

APPENDIX.

SPEECH

FOR JAMES HADFIELD,

IN THE COURT OF KINGS BENCH, ON A TRIAL AT BAR,

ON THE 26th OF APRIL, A. D. 1800.

PREFACE.

THE occasion of the trial of James Hadfield for high treason, in shooting at the king, at Drury-Lane play-house, is too well remembered to require much preface. All the facts, besides, which led to the Prosecution and which ended in the acquittal of the defendant, on the ground of his having committed the act under the dominion of insanity, are fully detailed in the following defence by his Counsel.

The successful issue of this trial, notwithstanding the warm and just interest which the whole nation took in the life of a Prince who had reigned in their affections for so many years, must ever be considered as a most striking instance of that cool, deliberate, and impartial administration of justice, which, since the glorious Revolution (for we can go no higher,) has distinguished this country. What renders this speech the more interesting and important, is the few instances which have occurred in our Courts, where it has become necessary to consider and with the utmost precision to determine in what cases mental derangement ought to be held to emancipate such unhappy persons from responsibility to the laws, for acts of great atrocity and violence. It is by no means every departure from sound reason and intellect, though sufficient to ground a commission of lunacy, and to deprive an individual of the management of his concerns that would deliver

him from an indictment of murder or other criminal act of violence; the act itself must appear to have been committed under the full dominion of insanity; and lord Erskine therefore took his stand upon the surest and safest ground, as it related to the safety of the public; and, therefore, the surest and safest for the unhappy prisoner; having, probably, a full security in bringing his case within his principle, as appeared by the result of the trial he took his claim of impunity as low as possible, and properly maintained the privilege of indemnity for those dystempered persons *only*, who commit crimes under the dominion of morbid delusions; but by no means extending to those whose insanity without delusion is principally characterized by violence and turbulent passion. The principle is of the utmost importance, and the more so from the assent which it received from the Court of King's Bench, on a solemn trial at the bar, Lord Kenyon appeared much against the prisoner, in the course of the evidence for the Crown; but after the disclosure of the principle on which his defence was grounded, and the statement of the evidence which would be given to support it, he became convinced, as it was proceeded on; and on its coming up to the principal facts detailed in the following Speech, his Lordship with that justice and feeling which eminently marked his character, delivered his opinion to the Attorney General (as the opinion of the whole court,) that the trial should not be farther proceeded in; which being acquiesced in by the present Lord Redesdale, then Attorney General, and the other Council for the Crown, no reply was made to the prisoner's defence—and he was acquitted.

It was said at the time, that the very learned Counsel for the Crown were not entirely satisfied with the view taken of the case by the Court (but of the truth of which we have no means of information.) Be that however as it may—it is one of the noblest features in the practice of our criminal law, that although Counsel are by no means bound to acquiesce in an opinion by the Judges, adverse to a Prisoner upon a capital trial; yet when the opinion is in favour of life—above all, upon the view taken even by a single Judge, much more by a whole Court, upon the evidence of the party accused; it would not be considered consonant to the mild characteristic of our laws for the ministers of the Crown to step beyond the Judges in the demand of criminal justice.

MR. ERSKINE'S

SPEECH FOR JAMES HADFIELD.

GENTLEMEN OF THE JURY,

THE scene which we are engaged in, and the duty which I am not merely *privileged*, but *appointed* by the authority of the court to perform, exhibits to the whole civilized world, a perpetual monument of our national justice.

The transaction, indeed, in every part of it, as it stands recorded in the evidence already before us, places our country, and its government, and its inhabitants, upon the highest pinnacle of human elevation. It appears, that upon the 15th day of May last, his majesty, after a reign of forty years, not merely in sovereign *power*, but spontaneously in the very hearts of his people, was openly shot at (or to all appearance shot at) in a public theatre in the centre of his capital, and amidst the loyal plaudits of his subjects, *yet not a hair of the head of the supposed assassin was touched*. In this unparalleled scene of calm forbearance, the king himself, though he stood first in personal interest and feeling, as well as in command, was a singular and fortunate example. The least appearance of emotion on the part of that august personage must, unavoidably have produced a scene quite different; and far less honourable than the court is now witnessing; but his majesty remained unmoved, and the person *apparently* offending, was only secured, without injury or reproach, for the business of this day.

Gentlemen, I agree with the Attorney-General (indeed there can be no possible doubt,) that if the same pistol had been maliciously fired by the prisoner in the same theatre, at the meanest man within its walls, he would have been brought to *immediate* trial, and, if guilty, to immediate execution. He would have heard the charge against him for the first time, when the indictment was read upon his arraignment.—He would have been a stranger to the names and even to the existence of those who were to sit in judgment upon him, and of those who were to be the witnesses against him; but upon the charge of even this murderous attack upon the king himself, he is covered all over with the armour of the law. He has been provided with counsel by the king's own judges, and not of *their* choice, but of *his own*. He has had a copy of the indictment ten days before this trial. He has had the names, descriptions, and abodes of all the jurors returned to the court; and the highest privilege of peremptory challenges derived from, and safely directed by that indulgence. He has had the same description of every witness who could be received to accuse him; and there must at this hour be twice the testimony against him as would be legally competent to establish his guilt on a similar prosecution by the meanest and most helpless of mankind.

Gentlemen, when this melancholy catastrophe happened, and the prisoner was arraigned for trial, I remember to have said to some now present, that it was, at first view, difficult to bring those indulgent exceptions to the general rules of trial within the principle which dictated them to our humane ancestors in cases of treasons against the political government, or of *rebellious* conspiracy against the person of the king. In *these* cases, the passions and interests of great bodies of powerful men being engaged and agitated, a counterpoise became necessary to give composure and impartiality to criminal tribunals; but a *mere murderous* attack upon the king's person, not at all connected with his political character, seemed a case to be ranged and dealt with like a similar attack upon any private man.

But the wisdom of the law is greater than any man's wisdom: how much more, therefore, than mine! An attack upon the king is considered to be parricide against the state, and the jury and the witnesses, and even the judges, are the children. It is fit, on that account, that there should be a solemn pause before we rush to

judgment; and what can be a more sublime spectacle of justice, than to see a statutable disqualification of a whole nation for a limited period, a fifteen day's *quarantine* before trial, lest the mind should be subject to the contagion of partial affections!*

From a prisoner so protected by the benevolence of our institutions, the utmost good faith would, on his part, be due to the public, if he had consciousness and reason to reflect upon the obligation.—The duty, therefore devolves on *me*, and *upon my honour*, it shall be fulfilled. I will employ no artifices of speech.—I claim only the strictest protection of the law for the unhappy man before you. I should indeed be ashamed, if I were to say any thing of the rule *in the abstract* by which he is to be judged, which I did not honestly feel; and I am sorry, therefore, that the subject is so difficult to handle with brevity and precision. Indeed, if it could be brought to a clear and simple criterion, which could admit of a dry admission or contradiction, there might be very little difference, *perhaps none at all*, between the Attorney-General and myself, upon the principles which ought to govern your verdict; but this is not possible, and I am, therefore, under the necessity of submitting to you, and to the judges, for their direction (and at a greater length than I wish,) how I understand this difficult and momentous subject.

The law, as it regards this most unfortunate infirmity of the human mind, like the law in all its branches, aims at the utmost degree of precision; but there are some subjects, as I have just observed to you, and the present is one of them, upon which it is extremely difficult to be precise. The general principle is clear, but the application is most difficult.

It is agreed by all jurists, and is established by the law of this, and every other country, that it is the *Reason* of *Man* which makes him accountable for his actions; and that the deprivation of reason acquits him of crime.—This principle is indisputable; yet so fearfully and wonderfully are we made, so infinitely subtle is the spiritual part of our being, so difficult is it to trace with accuracy the effect of diseased intellect upon human action, that I may appeal to all who hear me, whether there are any causes more difficult, or which, indeed, so often confound the learning of judges

* There must be fifteen days between arraignment and trial.

themselves, as when insanity, or the effects and consequences of insanity, become the subjects of legal consideration and judgment. I shall pursue the subject, as the Attorney-General has properly discussed it. I shall consider insanity, as it annuls a man's dominion over property; as it dissolves his contracts and other acts, which otherwise would be binding; and as it takes away his responsibility for crimes. If I could draw the line in a moment between these two views of the subject, I am sure the judges will do me the justice to believe, that I would fairly and candidly do so; but great difficulties press upon my mind, which oblige me to take a different course.

I agree with the Attorney-General, that the law, in neither civil nor criminal cases, will measure the degrees of men's understandings; and that a *weak* man, however much below the ordinary standard of human intellect, is not only responsible for crimes, but is bound by his contracts, and may exercise dominion over his property. Sir Joseph Jekyll, in the Duchess of Cleveland's case, took the clear legal distinction, when he said, "The law will not measure the sizes of men's capacities, so as they be *compos mentis*."

Lord Coke, in speaking of the expression *non compos mentis*, says, "Many times, as here, the Latine word expresses the true sense, and calleth him not amens, demens, furiosus, lunaticus, fatuus, stultus, or the like, for non compos mentis is the most sure and legal." He then says, "Non compos mentis is of four sorts; first, idiotia, which, from his nativity, by a perpetual infirmity, is *non compos mentis*; secondly, he that by sickness, grief, or other accident, wholly loses his memory and understanding; third, a lunatic that hath sometimes his understanding, and sometimes not; aliquando gaudet lucidis intervallis; and therefore he is called non compos mentis so long as he hath not understanding."

But notwithstanding the precision with which this great author points out the different kinds of this unhappy malady, the nature of his work, in this part of it, did not open to any illustration which it can now be useful to consider. In his Fourth Institute he is more particular; but the admirable work of Lord Chief Justice Hale, in which he refers to Lord Coke's Pleas of the Crown, renders all other authorities unnecessary.

Lord Hale says, "There is a partial insanity of mind, and a total insanity. The former is either in respect to things, *quoad hoc vel illud insanire*. Some persons, that have a competent use of reason in respect of some subjects, are yet under a particular dementia in respect of some particular discourses, subjects, or applications: or else it is partial in respect of degrees; and this is the condition of very many, especially melancholy persons, who for the most part discover their defect in excessive fears and griefs, and yet are not wholly destitute of the use of reason; and this partial insanity seems not to excuse them in the committing of any offence for its matter capital; for doubtless, most persons, that are felons of themselves and others, are under a degree of partial insanity, when they commit these offences. It is very difficult to define the invisible line that divides perfect and partial insanity; but it must rest upon circumstances duly to be weighed and considered both by judge and jury, lest on the one side there be a kind of inhumanity towards the defects of human nature;—or, on the other side, too great an indulgence given to great crimes."

Nothing, Gentlemen, can be more accurately or more humanely expressed; but the application of the rule is often most difficult. I am bound, besides, to admit that there is a wide distinction between civil and criminal cases. If, in the former, a man appears, upon the evidence, to be *non compos mentis*, the law avoids his act, though it cannot be traced or connected with the morbid imagination which constitutes his disease, and which may be extremely partial in its influence upon conduct; but to deliver a man from responsibility for crimes, above all, for crimes of great atrocity and wickedness, I am by no means prepared to apply this rule, however well established, when property only is concerned.

In the very recent instance of Mr. Greenwood (which must be fresh in his Lordship's recollection,) the rule in civil cases was considered to be settled. That gentleman, whilst insane, took up an idea that a most affectionate brother had administered poison to him.—Indeed, it was the prominent feature of his insanity.—In a few months he recovered his senses. He returned to his profession as an advocate; was sound and eminent in his practice, and in all respects a most intelligent and useful member of socie-

ty; but he could never dislodge from his mind the morbid delusion which disturbed it; and under the pressure, no doubt, of that diseased prepossession, he disinherited his brother. The cause to avoid this will was tried here. We are not now upon the evidence, but upon the principle adopted as the law. The Noble and Learned Judge, who presides upon this trial, and who presided upon that, told the Jury, that if they believed Mr. Greenwood, when he made the will, to have been *insane*, the will could not be supported, whether it had disinherited his brother, or not; that the act, no doubt, strongly confirmed the existence of the false idea which, if believed by the jury to amount to *madness*, would equally have affected his testament, if the brother, instead of being disinherited, had been in his grave; and that, on the other hand, if the unfounded notion did not amount to madness, its influence could not vacate the devise.* This principle of law appears to be sound and reasonable, as it applies to civil cases, from the extreme difficulty of tracing with precision, the secret motions of a mind, deprived by disease of its soundness and strength:

Whenever, therefore, a person may be considered *non compos mentis*, all his *civil* acts are void, whether they can be referred, or not, to the morbid impulse of his malady, or even though, to all *visible appearances*, totally separated from it; but I agree with Mr. Justice Tracey, that it is not every man of an idle, frantic appearance and behaviour, who is to be considered as a lunatic, either as it regards obligations or crimes; but that he must appear to the Jury to be *non compos mentis*, in the legal acceptance of the term; and that, not at any *anterior period*, which can have no bearing upon any case whatsoever, but at *the moment* when the contract was entered into, or the crime committed.

The Attorney-General, standing undoubtedly upon the most revered authorities of the law, has laid it down, that to protect a man from *criminal responsibility*, there must be a total *deprivation of memory and understanding*. I admit that this is the very expression used, both by Lord Coke and by Lord Hale; but the true interpretation of it deserves the utmost attention and consideration of the Court. If a total deprivation of memory was in-

* N. B. The Jury found for the will; but after a contrary verdict in the Common Pleas, a compromise took place.

tended by these great lawyers to be taken in the literal sense of the words:—if it was meant, that, to protect a man from punishment, he must be in such a state of prostrated intellect, as not to know his name, nor his condition, nor his relation towards others—that if a husband, he should not know he was married; or, if a father, could not remember that he had children; nor know the road to his house, nor his property in it—then no such madness ever existed in the world. It is *Idiocy* alone which places a man in this helpless condition; where, from an *original* mal-organization, there is the human frame alone without the human capacity; and which, indeed, meets the very definition of Lord Hale himself, when, referring to Fitzherbert, he says: “*Idiocy or fatuity a nativitate, vel dementia naturalis*, is such a one as described by Fitzherbert, who knows not to tell twenty shillings, nor knows his own age, or who was his father.” But in all the cases which have filled Westminster Hall with the most complicated considerations—the lunatics, and other insane persons who have been the subjects of them, have not only had memory, *in my sense of the expression*—they have not only had the most perfect knowledge and recollection of all the relations they stood in towards others, and of the acts and circumstances of their lives, but have, in general, been remarkable for subtlety and acuteness. Defects in their reasonings have seldom been traceable—the disease consisting in the delusive sources of thought:—all their deductions within the scope of the malady, being founded upon the *immoveable* assumption of matters as *realities*, either without any foundation whatsoever, or so distorted and disfigured by fancy, as to be almost nearly the same thing as their creation. It is true, indeed, that in some, perhaps in many cases, the human mind is stormed in its citadel, and laid prostrate under the stroke of frenzy; these unhappy sufferers, however, are not so much considered, by physicians, as maniacs; but to be in a state of delirium as from fever. There, indeed, all the ideas are overwhelmed—for reason is not merely disturbed, *but driven wholly from her seat*. Such unhappy patients are unconscious, therefore, except at short intervals, even of external objects; or, at least, are wholly incapable of considering their relations. Such persons, *and such persons alone* (except idiots) *are wholly deprived of their understandings*, in the Attorney-General’s seeming sense of that expression!

But these cases are not only extremely rare, but never can become the subjects of judicial difficulty. There can be but one judgment concerning them. In other cases, Reason is not driven from her seat, but distraction sits down upon it along with her, holds her, trembling upon it, and frightens her from her propriety. Such patients are victims to delusions of the most alarming description, which so overpower the faculties, and usurp so firmly the place of realities, as not to be dislodged and shaken by the organs of perception and sense: in such cases, the images frequently vary, but in the same subject are generally of the same terrific character.— Here too, no judicial difficulties can present themselves; for who could balance upon the judgment to be pronounced in cases of such extreme disease? Another class, branching out into almost infinite subdivisions, under which, indeed, the former, and every case of insanity may be classed, is, where the delusions are not of that frightful character—but infinitely various, and often extremely *circumscribed*; yet where imagination (*within the bounds of the malady*) still holds the most uncontrollable dominion over reality and fact: *and these are the cases which frequently mock the wisdom of the wisest in judicial trials*; because such persons often reason with a subtlety which puts in the shade the ordinary conceptions of mankind; their conclusions are just, and frequently profound; but the *premises from which they reason, when within the range of the malady*, are uniformly false: not false from any defect of knowledge or judgment; but, because a delusive image, the inseparable companion of real insanity, is thrust upon the subjugated understanding, incapable of resistance, because unconscious of attack.

Delusion, therefore, where there is no frenzy or raving madness, is the true character of insanity; and where it cannot be predicated of a man standing for life or death, for a crime, he ought not, in my opinion, to be acquitted; and if courts of law were to be governed by any other principle, every departure from sober, rational conduct, would be an emancipation from criminal justice. I shall place my claim to your verdict upon no such dangerous foundation. I must convince you, not only that the unhappy prisoner was a lunatic, within my own definition of lunacy, but that the act in question was the *immediate unqualified offspring of the disease*. In civil cases, as I have already said, the law avoids eve-

ry act of the lunatic during the period of the lunacy; although the delusion may be extremely circumscribed; although the mind may be quite sound in all that is not within the shades of the very partial eclipse; and although the act to be avoided, can in no way be connected with the influence of the insanity;—but to deliver a lunatic from responsibility to criminal justice, above all, in a case of such atrocity as the present, the relation between the disease and the act should be apparent. Where the connection is doubtful, the judgment should certainly be most indulgent, from the great difficulty of diving into the secret sources of a disordered mind:—but still I think, that as a doctrine of law, the delusion and the act should be connected.

You perceive, therefore, Gentlemen, that the prisoner, in naming me for his counsel, has not obtained the assistance of a person who is disposed to carry the doctrine of insanity in his defence, so far as even the books would warrant me in carrying it. Some of the cases, that of Lord Ferrers, for instance, which I shall consider hereafter, distinguished from the present, would not in my mind, bear the shadow of an argument, as a defence against an indictment for murder; I cannot allow the protection of insanity to a man who only exhibits violent passions, and malignant resentments, acting upon real circumstances; who is impelled to evil from no morbid delusions; but who proceeds upon the ordinary perceptions of the mind. I cannot consider such a man as falling within the protection which the law gives and is bound to give, to those whom it has pleased God, for mysterious causes, to visit with this most afflicting calamity.

He alone can be so emancipated, whose disease (call it what you will) consists not merely in seeing with a prejudiced eye, or with odd and absurd particularities, differing, in many respects, from the contemplations of sober sense, upon the actual existences of things; but, he *only*, whose whole reasoning and corresponding conduct, though governed by the ordinary dictates of reason, proceed upon something which has no foundation or existence.

Gentlemen, it has pleased God so to visit the unhappy man before you;—to shake his reason in its citadel;—to cause him to build up as realities, the most impossible phantoms of the mind, and to be impelled by them as motives *irresistible*: the whole fa-

bric being nothing but the unhappy vision of his disease—existing no where else—having no foundation whatsoever in the very nature of things.

Gentlemen, it has been stated by the Attorney-General, and established by evidence, which I am in no condition to contradict, nor have, indeed, any interest in contradicting, that, when the prisoner bought the pistol which he discharged at, or *towards* his majesty, he was well acquainted with the nature and use of it;—that, as a soldier, he could not but know that in his hands it was a sure instrument of death;—that when he bought the gun-powder, he knew it would prepare the pistol for its use;—that when he went to the playhouse, he knew he was going there, and every thing connected with the scene as perfectly as any other person. I freely admit all this: I admit, also, that every person who listened to his conversation, and observed his deportment upon his apprehension, must have given precisely the evidence delivered by his royal highness, the duke of York; and that nothing like insanity appeared to those who examined him. But what then? I conceive, Gentlemen, that *I* am more in the habit of examination, than either that illustrious person, or the witnesses from whom you have heard this account; yet I well remember (indeed I never can forget it,) that since the noble and learned judge has presided in this court, I examined, for the greater part of a day, in this very place, an unfortunate gentleman who had indicted a most affectionate brother, together with the keeper of a mad-house at Hoxton, for having imprisoned him as a lunatic; whilst, according to his evidence, he was in his perfect senses. I was, unfortunately, not instructed in what his lunacy consisted, although my instructions left me no doubt of the fact; but, not having the clue, he completely foiled me in every attempt to expose his infirmity. You may believe that I left no means unemployed which long experience dictated: but without the smallest effect. The day was wasted, and the prosecutor, by the most affecting history of unmerited suffering, appeared to the judge and jury, and to a humane English audience, as the victim of the most wanton and barbarous oppression; at last, Dr. Sims came into court, who had been prevented by business, from an earlier attendance; and whose name, by the bye, I observe to-day in the list of the witnesses for the Crown. From Dr. Sims, I soon learned that the

very man whom I had been above an hour examining, and with every possible effort which counsel are so much in the habit of exerting, believed himself to be *the Lord and Saviour of mankind*; not merely *at the time of his confinement*, which was alone necessary for my defence ; *but during the whole time that he had been triumphing over every attempt to surprize him in the concealment of his disease*. I then affected to lament the indecency of my ignorant examination, when he expressed his forgiveness, and said with the utmost gravity and emphasis, in the face of the whole Court, "I AM THE CHRIST ;" and so the cause ended. Gentlemen, this is not the only instance of the power of concealing this malady ; I could consume the day if I where to enumerate them ; but there is one so extremely remarkable, that I cannot help stating it.

Being engaged to attend the assizes at Chester upon a question of lunacy, and having been told that there had been a memorable case tried before Lord Mansfield in this place, I was anxious to procure a report of it ; and from that great man himself (who within these walls will ever be revered, being then retired in his extreme old age, to his seat near London, in my own neighbourhood) I obtained the following account of it : "A man of the name of Wood," said Lord Mansfield, "had indicted Dr. Monro for keeping him as a prisoner (I believe in the same mad-house at Hoxton) when he was sane. He underwent the most severe examination by the defendant's Counsel without exposing his complaint ; but Doctor Battye, having come upon the Bench by me, and having desired me to ask him what was become of the PRINCESS, whom he had corresponded with in cherry juice, he showed in a moment what he was. He answered, that there was nothing at all in that, because having been (as every body knew) imprisoned in a high tower, and being debarred the use of ink, he had no other means of correspondence but by writing his letters in cherry-juice, and throwing them into the river which surrounded the tower, where the Princess received them in a boat. There existed, of course, no tower, no imprisonment, no writing in cherry-juice, no river, no boat ; but the whole the inveterate phantom of a morbid imagination.—I immediately," continued Lord Mansfield, "directed Dr. Monro to be acquitted ; but this man, Wood, being a merchant in Philpot Lane, and having been carried through the city in his way to the mad-house, he indicted Dr. Monro over again, for the trespass and

imprisonment in London, knowing that he had lost his cause by speaking of the Princess at Westminster; and such," said Lord Mansfield, "is the extraordinary subtlety and cunning of madmen, that when he was cross-examined on the trial in London, as he had successfully been before, in order to expose his madness, all the ingenuity of the Bar, and all the authority of the Court, could not make him say a single syllable upon that topic, which had put an end to the indictment before, although he still had the same indelible impression upon his mind, as he signified to those who were near him; but conscious that the delusion had occasioned his defeat at Westminster, he obstinately persisted in holding it back."*

Now, Gentlemen, let us look to the application of these cases. I am not examining, *for the present*, whether either of these persons ought to have been acquitted, *if they had stood in the place of the prisoner now before you*; that is quite a distinct consideration, which we shall come to hereafter.—The direct application of them is only this: that if I bring before you such evidence of the Prisoner's insanity as, *if believed to have really existed*, shall, in the opinion of the court, as the rule for your verdict in point of law, be sufficient for his deliverance, then that you ought not to be shaken in giving full credit to such evidence, notwithstanding the report of those who were present at his apprehension, who describe him as discovering no symptom whatever of mental incapacity or disorder: because I have shown you that insane persons frequently appear in the utmost state of ability and composure, even in the highest paroxysms of insanity, except when frenzy is the characteristic of the disease. In this respect, the cases I have cited to you, have the most decided application; because they apply to the overthrow of the whole of the evidence (admitting at the same time the truth of it,) by which the prisoner's case can alone be encountered.

But it is said, that whatever delusions may overshadow the mind, every person ought to be responsible for crimes, who has the knowledge of good and evil. I think I can presently convince you, that there is something too general in this mode of consider-

* This evidence at Westminster, was then proved against him by the short-hand writer.

ing the subject; and you do not, therefore, find any such proposition in the language of the celebrated writer alluded to by the Attorney-General in his speech. Let me suppose that the character of an insane delusion consisted in the belief that some given person was any brute animal, or an inanimate being (and such cases have existed,) and that upon the trial of such a lunatic for murder, you firmly, upon your oaths, were convinced, upon the uncontradicted evidence of an hundred persons, that he believed the man he had destroyed, to have been a potter's vessel; that it was quite impossible to doubt that fact, *although to all other intents and purposes, he was sane*; conversing, reasoning, and acting, as men not in any manner tainted with insanity, converse, and reason, and conduct themselves: suppose farther, that he believed the man whom he destroyed, but whom he destroyed as a potter's vessel, to be the property of another; and that he had malice against such supposed person, and that he meant to injure him, knowing the act he was doing to be malicious and injurious, and that, in short, he had full knowledge of all the principles of good and evil; yet would it be possible to convict such a person of murder, if, from the influence of his disease, he was ignorant of the relation he stood in to the man he had destroyed, and was utterly *unconscious* that he had struck at the life of a human being? I only put this case, and many others might be brought as examples to illustrate, that the knowledge of good and evil is too general a description.

I really think, however, that the Attorney General and myself do not, in substance, very materially differ; because, from the whole of his most able Speech, taken together, his meaning may, I think, be thus collected; that where the act which is criminal, is done under the dominion of malicious mischief and wicked intention, although such insanity might exist in a corner of the mind, as might avoid the acts of the delinquent as a lunatic in a civil case, yet that he ought not to be protected, if malicious mischief, and not insanity, had impelled him to the act for which he was criminally to answer; because in such a case, the act might be justly ascribed to malignant motives, and not to the dominion of disease.—I am not disposed to dispute such a proposition in a case which would apply to it, and I can well conceive such cases may exist. The question, therefore, which you will

have to try, is this ; Whether, when this unhappy man discharged the pistol in a direction which convinced, and ought to convince, every person that it was pointed at the person of the King he meditated mischief and violence to his majesty, or whether he came to the theatre (*which it is my purpose to establish*) under the dominion of the most melancholy insanity that ever degraded and overpowered the faculties of man. I admit that when he bought the pistol, and the gunpowder to load it, and when he loaded it and came with it to the theatre, and lastly, when he discharged it ; every one of these acts would be overt acts of compassing the king's death, if at all or *any* of these periods, he was actuated by that *mind and intention*, which would have constituted murder in the case of an individual, if the individual had been actually killed. I admit also, that the mischievous, and, in this case the traitorous intention must be referred from all these acts, unless I can rebut the inferences by proof. If I were to fire a pistol *towards* you, Gentlemen, where you are now sitting, the act would undoubtedly infer the malice. *The whole proof, therefore, is undoubtedly cast upon ME.*

In every case of treason, or murder, which are precisely the same, except that the unconsummated intention in the case of the king, is the same as the actual murder of a private man, the Jury must impute to the person whom they condemn by their verdict, *the motive* which constitutes the crime ; and your province to-day will, therefore, be to decide, whether the prisoner, when he did the act, was under the uncontrollable dominion of insanity, and was impelled to it by a *morbid delusion* ; or whether it was the act of a man, who, though occasionally mad, or even at the time not perfectly collected, was yet not actuated by the disease, but by the suggestion of a wicked and malignant disposition.

I admit therefore, freely, that if, after you have heard the evidence which I hasten to lay before you, of the state of the prisoner's mind, and close up to the very time of this catastrophe, you shall still not feel yourselves clearly justified in negating the wicked motives imputed by this indictment, I shall leave you in the hands of the learned judges to declare to you the law of the land, and shall not seek to place society in a state of uncertainty by any appeal addressed only to your compassion : I am appoint-

ed by the court to claim for the prisoner the full protection of the law, but not to misrepresent it in his protection.

Gentlemen, the facts of this melancholy case lie within a narrow compass.

The unfortunate person before you was a soldier. He became so, I believe, in the year 1793—and is now about twenty-nine years of age. He served in Flanders under the duke of York, as appears by his royal highness' evidence; and being a most approved soldier, he was one of those singled out as an orderly man to attend upon the person of the commander-in-chief. You have been witnesses, Gentlemen, to the calmness with which the prisoner has sitten in his place during the trial.—There was but one exception to it.—You saw the emotion which overpowered him when the illustrious person now in court, took his seat upon the bench. Can you then believe, from the evidence, for I do not ask you to judge as physiognomists, or to give the rein to compassionate fancy; but can there be any doubt that it was the generous emotion of the mind, on seeing the Prince, under whom he had served with so much bravery and honour? Every man certainly must judge for himself: I am counsel, not a witness, in the cause; but it is a most striking circumstance, when you find from the crown's evidence, that when he was dragged through the orchestra under the stage, and charged with an act for which he considered his life as forfeited, he addressed the duke of York with the same enthusiasm which has marked the demeanour I am adverting to:—Mr. Richardson, who showed no disposition in his evidence to help the prisoner, but who spoke with the calmness and circumspection of truth, and who had no idea that the person he was examining, was a lunatic, has given you the account of the burst of affection on his first seeing the duke of York, against whose father and sovereign he was supposed to have had the consciousness of treason.—The king himself, whom he was supposed to have so malignantly attacked, never had a more gallant, loyal, or suffering soldier. His gallantry and loyalty will be proved; his sufferings speak for themselves.

About five miles from Lisle, upon the attack made on the British army, this unfortunate soldier was in the fifteenth light dragoons, in the thickest of the ranks, exposing his life for his prince, whom he is supposed to-day to have sought to murder:—the first

wound he received is most materially connected with the subject we are considering; you may see the effect of it now.* The point of a sword was impelled against him with all the force of a man urging his horse in battle. When the court put the prisoner under my protection, I thought it my duty to bring Mr. Cline to inspect him in Newgate; and it will appear by the evidence of that excellent and conscientious person, who is known to be one of the first anatomists in the world, that from this wound one of two things must have happened: either, that by the immediate operation of surgery, this displaced part of the skull must have been taken away, or been forced inward on the brain. The second stroke, also speaks for itself: you may now see its effects.—(*Here Mr. Erskine touched the head of the Prisoner.*) He was cut across all the nerves which give sensibility and animation to the body, and his head hung down almost dissevered, until by the act of surgery it was placed in the position you now see it; but thus, almost destroyed, he still recollected his duty, and continued to maintain the glory of his country, when a sword divided the membrane of his neck where it terminates in the head; yet he still kept his place, though his helmet had been thrown off by the blow which I secondly described, when by another sword he was cut into the very brain—you may now see its membrane uncovered.—Mr. Cline will tell you that he examined these wounds, and he can better describe them; I have myself seen them, but am no surgeon: from his evidence you will have to consider their consequences. It may be said that many soldiers receive grievous wounds without their producing insanity. So they may undoubtedly; but we are here upon *the fact*. There was a discussion the other day, on whether a man, who had been seemingly hurt by a fall beyond remedy, could get up and walk: the people around, said it was impossible; but he did get up and walk, and so there was an end to the impossibility. The effects of the prisoner's wounds were known by the immediate event of insanity, and Mr. Cline will tell you that it would have been strange indeed, if any other event had followed. We are not here upon a case of insanity arising from the spiritual part of man, as it may be affected by he-

* Mr. Erskine put his hand to the prisoner's head, as he stood by him at the bar of the court.

editary taint—by intemperance, or by violent passions, the operations of which are various and uncertain; but we have to deal with a species of insanity more resembling what has been described as idiocy, proceeding from original mal-organization. *There* the disease is, from its very nature, *incurable*; and so where a man (*like the Prisoner*) has become insane from violence to the brain, which permanently affects its structure, however such a man may appear occasionally to others, his disease is *immoveable*; and if the prisoner, therefore, were to live a thousand years, he *never* could recover from the consequence of that day.

But this is not all. Another blow was still aimed at him, which he held up his arm to avoid, when his hand was cut into the bone. It is an afflicting subject, Gentlemen, and better to be spoken of by those who understand it; and, to end all farther description, he was then thrust almost through and through the body with a bayonet, and left in a ditch amongst the slain.

He was afterwards carried to an hospital, where he was known by his tongue to one of his countrymen, who will be examined as a witness, who found him, not merely as a wounded soldier deprived of the powers of his body, but bereft of his senses forever.

He was affected, from the very beginning, with that species of madness, which, from violent agitation, fills the mind with the most inconceivable imaginations, wholly unfitting it for all dealing with human affairs, according to the sober estimate and standard of reason. He imagined that he had constant intercourse with the Almighty Author of all things; that the world was coming to a conclusion; and that, like our blessed Saviour, he was to sacrifice himself for its salvation; and so obstinately did this morbid image continue, that you will be convinced he went to the theatre to perform, as he imagined, that blessed sacrifice; and, because he would not be guilty of suicide, though called upon by the imperious voice of Heaven, he wished that by the appearance of crime, his life might be taken away from him by others. This bewildered, extravagant species of madness appeared immediately after his wounds on his first entering the hospital, and on the very same account he was discharged from the army on his return to England, which the Attorney-General very honourably and candidly seemed to intimate.

To proceed with the proofs of his insanity, down to the very period of his supposed guilt. This unfortunate man before you, is the father of an infant of eight months ; and I have no doubt, that if the boy had been brought into court (*but this is a grave place for the consideration of justice, and not a theatre for stage effect*)—I say, I have no doubt whatever, that if this poor infant had been brought into court, you would have seen the unhappy father wrung with all the emotions of parental affection : yet, upon the Tuesday preceding the Thursday when he went to the play-house, you will find his disease still urging him forward, with the impression, *that the time was come*, when he must be destroyed for the benefit of mankind ; and in the confusion, or rather *delirium* of this wild conception, he came to the bed of the mother, who had this infant in her arms, and endeavoured to dash out its brains against the wall. The family was alarmed—and the neighbours being called in, the child was, with difficulty, rescued from the unhappy parent, who, in his madness, would have destroyed it.

Now let me, for a moment, suppose that he had succeeded in the accomplishment of his insane purpose ; and the question had been, whether he was guilty of murder. Surely the affection for this infant, up to the very moment of his distracted violence, would have been conclusive in his favour : but not more so than his loyalty to the king, and his attachment to the duke of York, as applicable to the case before us ; yet at that very period, even of extreme distraction, he conversed as rationally on all other subjects, as he did to the duke of York at the theatre. The prisoner knew perfectly that he was the husband of the woman, and the father of the child ;—the tears of affection ran down his face at the very moment that he was about to accomplish its destruction ; but during the whole of this scene of horror, he was not at all deprived of memory, in the Attorney-General's sense of the expression ; he could have communicated, at that moment, every circumstance of his past life, and every thing connected with his present condition, *except only the quality of the act he was meditating*. In *that*, he was under the over-ruling dominion of a morbid imagination, and conceived that he was acting against the dictates of nature, in obedience to the superior commands of Heaven, which had told him, that the moment he was dead, and the infant with

him, all nature was to be changed, and all mankind were to be redeemed by his dissolution.—There was not an idea in his mind, from the beginning to the end, of the destruction of the king; on the contrary, he always maintained his loyalty—lamented that he could not go again to fight his battles in the field—and it will be proved, that only a few days before the period in question, being present when a song was sung, indecent, as it regarded the person and condition of his majesty, he left the room with loud expressions of indignation, and immediately sung, God save the King, with all the enthusiasm of an old soldier, who had bled in the service of his country.

I confess to you, Gentlemen, that this last circumstance, which may, to some, appear insignificant, is, in my mind, most momentous testimony; because, if this man had been in the habit of associating with persons inimical to the government of our country, so that mischief might have been fairly argued to have mixed itself with madness (which, by the bye, it frequently does;) if it could in any way have been collected, that from his disorder, more easily inflamed and worked upon, he had been led away by disaffected persons, to become the instrument of wickedness; if it could have been established that such had been his companions and his habits, I should have been ashamed to lift up my voice in his defence. I should have felt, that, however his mind might have been weak and disordered, yet if his understanding sufficiently existed, to be methodically acted upon, as an instrument of malice, I could not have asked for an acquittal: but you find, on the contrary, in the case before you, that notwithstanding the opportunity which the crown has had, and which, upon all such occasions, it justly employs to detect treason, either against the person of the king, or against his government; not one witness has been able to fix upon the prisoner before you, any one companion, of even a doubtful description, or any one expression from which disloyalty could be inferred; whilst the whole history of his life repels the imputation. His courage, in defence of the king and his dominions, and his affection for his son, is such unanswerable evidence, all speak aloud against the presumption that he went to the theatre with a mischievous intention.

To recur again to the evidence of Mr. Richardson, who delivered most honourable and impartial testimony: I certainly am

obliged to admit, that what a prisoner says for himself, when coupled at the very time with an overt act of wickedness, is no evidence whatever to alter the obvious quality of the act he has committed. If, for instance, I who am now addressing you, had fired the same pistol towards the box of the king—and, having been dragged under the orchestra, and secured for criminal justice, I had said, that I had no intention to kill the king, but was weary of my life, and meant to be condemned as guilty; would any man who was not himself insane, consider that as a defence? Certainly not; because it would be without the whole foundation of the prisoner's previous condition; part of which it is even difficult to apply closely and directly by strict evidence, without taking his undoubted insanity into consideration; because it is his unquestionable insanity which alone stamps the effusions of his mind with sincerity and truth.

The idea which had impressed itself, but in most confused images, upon this unfortunate man, was, that he must be destroyed, but ought not to destroy himself. He once had the idea of firing over the king's carriage in the street; but then he imagined he should be immediately killed, which was not the mode of propitiation for the world—and as our Saviour, before his Passion, had gone into the garden to pray, this fallen and afflicted being, after he had taken the infant out of bed to destroy it, returned also to the garden, saying, as he afterwards said to the duke of York, "that all was not over—that a great work was to be finished?"—and there he remained in prayer, the victim of the same melancholy visitation.

Gentlemen, these are the facts, freed from even the possibility of artifice or disguise; because the testimony to support them will be beyond all doubt; and in contemplating the law of the country, and the precedents of its justice, to which they must be applied, I find nothing to challenge or question—I approve of them throughout—I subscribe to all that is written by Lord Hale, I agree with all the authorities, cited by the Attorney-General, from Lord Coke; but above all, I do most cordially agree in the instance of convictions by which he illustrated them in his able address. I have now lying before me the case of earl Ferrers:—unquestionably there could not be a shadow of doubt, and none appears to have been entertained, of his guilt.—I wish, indeed,

nothing more than to contrast the two cases; and so far am I from disputing either the principle of that condemnation, or the evidence that was the foundation of it, that I invite you to examine whether any two instances in the whole body of the criminal law, are more diametrically opposite to each other, than the case of earl Ferrers and that now before you. Lord Ferrers was divorced from his wife by act of parliament; and a person of the name of Johnson, who had been his steward, had taken part with the lady in that proceeding, and had conducted the business in carrying the act through the two houses. Lord Ferrers consequently wished to turn him out of a farm which he occupied under him; but his estate being in trust, Johnson was supported by the trustees in his possession: there were, also, some differences respecting coal-mines; and in consequence of both transactions, Lord Ferrers took up the most violent resentment against him. Let me here observe, Gentlemen, that this was not a resentment founded upon any *illusion*; not a resentment forced upon a dis-tempered mind by fallacious images, but depending upon *actual circumstances and real facts*; and acting like any other man under the influence of malignant passions, he repeatedly declared that he would be revenged on Mr. Johnson, particularly for the part he had taken in depriving him of a contract respecting the mines.

Now suppose Lord Ferrers could have showed that no difference with Mr. Johnson had ever existed regarding his wife at all—that Mr. Johnson had never been his steward—and that he had only, from delusion, believed so when his situation in life was quite different. Suppose, farther, that an *illusivè imagination* had *alone* suggested to him that he had been thwarted by Johnson in his contract for these coal-mines, there never having been any contract at all for coal-mines; in short, that the whole basis of his enmity was without any foundation in nature, and had been shown to have been a *morbid image* imperiously fastened upon his mind. Such a case as that would have exhibited a character of insanity in Lord Ferrers, extremely different from that in which it was presented by the evidence to *his peers*. Before *them*, he only appeared as a man of turbulent passions; whose mind was disturbed by no fallacious images of things without existence; whose quarrel with Johnson was founded *upon no illusions*, but

upon existing facts ; and whose resentment proceeded to the fatal consummation with all the ordinary indications of mischief and malice ; and who conducted his own defence with the greatest dexterity and skill. *Who then could doubt that Lord Ferrers was a murderer ?* When the act was done, he said, " I am glad I have done it. He was a villain, and I am revenged ;" but when he afterwards saw that the wound was probably mortal, and that it involved consequences fatal to himself, he desired the surgeon to take all possible care of his patient—and, conscious of his crime, kept at bay the men who came with arms to arrest him ; showing, from the beginning to the end, nothing that does not generally accompany the crime for which he was condemned. He was proved, to be sure, to be a man of unreasonable prejudices, addicted to absurd practices, and agitated by violent passions ; but the act was not done under the dominion of uncontrollable disease ; and whether the mischief and malice were substantive, or marked in the mind of a man whose passions bordered upon, or even amounted to insanity, it did not convince the Lords, that, under all the circumstances of the case, he was not a fit object of criminal justice.

In the same manner, Arnold, who shot at Lord Onslow, and who was tried at Kingston soon after the Black Act passed on the accession of George I. Lord Onslow having been very vigilant as a magistrate in suppressing clubs, which were supposed to have been set on foot to disturb the new government, Arnold had frequently been heard to declare, that Lord Onslow would ruin his country ; and although he appeared from the evidence, to be a man of most wild and turbulent manners, yet the people round Guildford, who knew him, did not, in general, consider him to be insane.—His counsel could not show, that any morbid *delusion* had ever overshadowed his understanding.—They could not show, *as I shall*, that just before he shot at Lord Onslow, he had endeavoured to destroy his own beloved child. It was a case of *human resentment*.

I might instance, also, the case of Oliver, who was indicted for the murder of Mr. Wood, a potter, in Staffordshire. Mr. Wood had refused his daughter to this man in marriage. My friend, Mr. Milles, was counsel for him at the assizes. He had been employed as a surgeon and apothecary by the father, who forbid him his

house, and desired him to bring in his bill for payment; when, in the agony of disappointment, and brooding over the injury he had suffered, on his being admitted to Mr. Wood to receive payment, he shot him upon the spot. The trial occupied great part of the day; yet, for my own part, I cannot conceive that there was any thing in the case for a jury to deliberate on. He was a man acting upon *existing facts*, and upon *human resentments* connected with them. He was at the very time carrying on his business, which required learning and reflection, and, indeed, a reach of mind beyond the ordinary standard, being trusted by all who knew him, as a practiser in medicine. Neither did he go to Mr. Wood's under the influence of *illusion*; but he went to destroy the life of a man who was placed exactly in the circumstances which the mind of the criminal represented him. He went to execute vengeance on him for refusing his daughter. In such a case there might, no doubt, be passion approaching to frenzy; but there wanted that characteristic of madness to emancipate him from criminal justice.

There was another instance of this description in the case of a most unhappy woman, who was tried in Essex for the murder of Mr. Errington, who had seduced and abandoned her and the children she had borne to him. It must be a consolation to those who prosecuted her, that she was acquitted, as she is at this time in a most undoubted and deplorable state of insanity; but I confess, if I had been upon the jury who tried her, I should have entertained great doubts and difficulties: for although the unhappy woman had before exhibited strong marks of insanity arising from grief and disappointment; yet she acted upon facts and circumstances, which had an *existence*, and which were calculated, upon the ordinary principles of human action, to produce the most violent resentment. Mr. Errington having just cast her off, and married another woman, or taken her under his protection, her jealousy was excited to such a pitch, as occasionally to overpower her understanding; but, when she went to Mr. Errington's house, where she shot him, she went with the express and deliberate purpose of shooting him. That fact was unquestionable;—she went there with a resentment long rankling in her bosom, bottomed on an existing foundation; she did not act under a delusion, that he had deserted her when he had not, but took revenge

upon him for an actual desertion ; but still the Jury, in the humane consideration of her sufferings, pronounced the insanity to be predominant over resentment, and they acquitted her.

But let me suppose (which would liken it to the case before us) that she had never cohabited with Mr. Errington ; that she never had had children by him ; and, consequently, that he neither had, or could possibly have deserted or injured her. Let me suppose, in short, that she had never seen him in her life, but that her resentment had been founded on the morbid delusion that Mr. Errington, who had never seen her, had been the author of all her wrongs and sorrows ; and that, under that *diseased* impression, she had shot him. If that had been the case, Gentlemen, she would have been acquitted upon the opening, and no judge would have sat to try such a cause : the *act itself* would have been decisively characteristic of madness, because, being founded upon nothing existing, it could not have proceeded from malice, which the law requires to be charged and proved, in every case of murder, as the foundation of a conviction.

Let us now recur to the cause we are engaged in, and examine it upon those principles by which I am ready to stand or fall, in the judgment of the court.

You have a man before you who will appear, upon the evidence, to have received those almost deadly wounds which I described to you, producing the immediate and immoveable effects which the eminent surgeon, whose name I have mentioned, will prove that they could not but have produced ; it will appear, that from that period he was visited with the severest paroxysms of madness, and was repeatedly confined with all the coercion which it is necessary to practise upon lunatics ; yet what is quite decisive against the imputation of treason against the person of the king, his loyalty never forsook him.—Sane or insane, it was his very characteristic to love his sovereign and his country, although the delusions which distracted him were sometimes, *in other respects*, as contradictory as they were violent.

Of this inconsistency, there was a most striking instance on only the Tuesday before the Thursday in question, when it will be proved, that he went to see one Truelet, who had been committed by the duke of Portland as a lunatic. This man had taken up an idea that our Saviour's second advent, and the dissolution of

all human things, were at hand; and conversed in this strain of madness: this mixing itself with the insane delusion of the prisoner, he immediately broke out upon the subject of his own propitiation and sacrifice for mankind, although only the day before he had exclaimed, that the Virgin Mary was a whore; that Christ was a bastard; that God was a thief, and that he and this Truelet were to live with him at White Conduit House, and there to be enthroned together. His mind, in short, was overpowered and overwhelmed with distraction.

The charge against the prisoner, is the overt act of compassing the death of the king, in firing a pistol at his majesty—an act which only differs from murder, inasmuch as the bare compassing is equal to the accomplishment of the malignant purpose; and it will be *your* office, under the advice of the judge, to decide by your verdict, to which of the two impulses of the mind you refer the act in question: you will have to decide, whether you attribute it wholly to mischief and malice, or wholly to insanity, or to the one mixing itself with the other. If you find it attributable to mischief and malice only, *let the man die*. The law demands his death for the public safety. If you consider it as conscious malice and mischief mixing itself with insanity, I leave him in the hands of the court, to say how he is to be dealt with; it is a question too difficult for me.—I do not stand here to disturb the order of society, or to bring confusion upon my country; but if you find that the act was committed wholly under the dominion of insanity; if you are satisfied that he went to the theatre contemplating his own destruction only; and that, when he fired the pistol, he did not *maliciously* aim at the person of the king—you will then be bound, even upon the principle which the Attorney-General himself humanely and honourably stated to you, to acquit this most unhappy prisoner.

If, in bringing these considerations hereafter to the standard of the evidence, any doubts should occur to you on the subject, the question for your decision will then be, which of the two alternatives is the most probable—a duty which you will perform by the exercise of that reason of which, for wise purposes, it has pleased God to deprive the unfortunate man whom you are trying; your sound understandings will easily enable you to distinguish *infirmities*, which are *misfortunes*, from *motives*, which are

crimes. Before the day ends the evidence will be decisive upon this subject.

There is, however, another consideration which I ought distinctly to present to you; because I think that more turns upon it than any other view of the subject: namely, whether the prisoner's defence can be impeached for artifice or fraud; because I admit, that if, at the moment when he was apprehended, there can be fairly imputed to him any pretence or counterfeit of insanity, it would taint the whole case, and leave him without protection; but for such a suspicion there is not even a shadow of foundation. It is repelled by the whole history and character of his disease, as well as of his life, independent of it. If you were trying a man under the Black Act, for shooting at another, and there was a doubt upon the question of malice; would it not be important, or rather decisive evidence, that the prisoner had no resentment against the prosecutor—but that, on the contrary, he was a man whom he had always loved and served? Now the prisoner was maimed, cut down, and destroyed in the service of the king.

Gentlemen, another reflection presses very strongly on my mind, which I find it difficult to suppress. In every state there are political differences and parties, and individuals disaffected to the system of government under which they live as subjects. There are not many such, I trust, in this country; but whether there are many or any of such persons, there is one circumstance which has peculiarly distinguished his majesty's life and reign, and which is in itself as a host in the prisoner's defence:—since, amidst all the treasons and all the seditions which have been charged on reformers of government as conspiracies to disturb it, no hand or voice has been lifted up against the person of the king: there have, indeed, been unhappy lunatics who, from ideas too often mixing themselves with insanity, have intruded themselves into the palace—but no malicious attack has ever been made upon the king, to be settled by a trial; his majesty's character and conduct have been a safer shield than guards or than laws. Gentlemen, I wish to continue to that sacred life that best of all securities; I seek to continue it under that protection where it has been so long protected.—We are not to do evil that good may come of it; we are not to stretch the laws to hedge

round the life of the king with a greater security than that which the Divine Providence has so happily realized.

Perhaps there is no principle of religion more strongly inculcated by the sacred scriptures, than by that beautiful and encouraging lesson of our Saviour himself upon confidence in the divine protection : " Take no heed for your life, what ye shall eat, or what ye shall drink, or wherewithal ye shall be clothed ; but seek ye first the kingdom of God, and all these things shall be added unto you." By which it is undoubtedly not intended that we are to disregard the conservation of life, or to neglect the means necessary for its sustentation ; nor that we are to be careless of whatever may contribute to our comfort and happiness—but that we should be contented to receive them as they are given to us, and not seek them in the violation of the rule and order appointed for the government of the world.—On this principle nothing can more tend to the security of his majesty and his government, than the scene which this day exhibits in the calm, humane, and impartial administration of justice ;—and if, in my part of this solemn duty, I have in any manner trespassed upon the just security provided for the public happiness, I wish to be corrected. I declare to you, solemnly, that my only aim has been to secure for the prisoner at the bar, whose life and death are in the balance, that he should be judged rigidly by the evidence and the law. I have made no appeal to your passions—you have no right to exercise them. This is not even a case in which, if the prisoner be found guilty, the royal mercy should be counselled to interfere ; he is either an accountable being, or not accountable ; if he was unconscious of the mischief he was engaged in, the law is a corollary, and he is not guilty ; but if, when the evidence closes, you think he was conscious, and maliciously meditated the treason he is charged with, it is impossible to conceive a crime more vile and detestable ; and I should consider the king's life to be ill attended to indeed, if not protected by the full vigour of the laws, which are watchful over the security of the meanest of his subjects. It is a most important consideration, both as it regards the prisoner and the community of which he is a member.—Gentlemen, I leave it with you.

KESSLER'S CASE.

The following case excited much attention at the time it happened, and properly : for the man whether guilty or not, was convicted and executed upon testimony that would by no means authorize the proceedings. It was in consequence of the uncertainty thus thrown upon the chemical tests usually employed, that I found it necessary to institute a new set of experiments on Arsenic, Copper, and Sublimatc, which are detailed in the Memoir that succeeds this article. In the mean time, the case of Kessler, will serve to dictate more caution than was therein made use of, to the persons who as Witnesses, Jurors, or Judges, have in their hands the power of life and death over a fellow creature. T. C.

An Abstract of a Report of the Trial of Abraham Kessler, indicted for poisoning his wife with white arsenic and laudanum, and found guilty by the Jury. Schoharie County, New-York, Sept. 12, 1817.

[Am. Med. Rec. Vol. I. p. 386.]

On the 17th November, 1817, Abraham Kessler and his wife came to the house of Catherine Best, in the town of Middleburg. At night the wife of the prisoner was taken unwell with violent puking ; in the morning following she complained of much pain in the stomach, and was very thirsty. During the day she grew worse, the pains of the stomach and head became very severe ; she sweat a great deal, and felt a burning sensation in her head and stomach. On the second morning she appeared better, but still felt pain and a burning heat in the stomach. Kessler was requested by the landlady to send for some physician ; he manifested an unwillingness, and said it would be useless, as she was accustomed to such spells. After repeated requests, he at length sent for a physician. In the afternoon of this day she was still more violently affected with pain and burning in the stomach, and chills and sweats appeared at alternate intervals ; on the following night, the landlady proposed to sit up with the deceased ;

Kessler, however, refused, and said it was not necessary. The next morning she was better, and sat up a while; had a trembling in her limbs, and giddiness;—during this time Kessler had gone to the doctor's; on his return he gave her something, which he said was a vomit; she now grew worse again, and complained of pain and burning in her stomach as before. Kessler was now told to get a physician to come to see his wife; he replied again, that it was not worth while. He was most of the time in the room alone with the deceased. On the evening of this day she became very bad, and complained of more distress in her stomach; she said her whole body was in distress and pain; and was alternately cold and hot. During the night she was in continual distress, and on the following morning at times delirious. Kessler now went for a physician but brought none with him. He gave her more medicine; upon which she grew still worse;—he said he had given her opium. In the evening Dr. B. Carpenter saw her;—on Friday she could not speak, and died on the evening of the same day, which was the 22d November.

From the evidence of Dr. B. Carpenter, it appeared that Kessler had called on him three times;—the first time he received from the doctor a dose of tartar emetic, two potions of cathartic, some fever powders, composed of opium, camphor, and emetic tartar, and *half an ounce of opium*: Kessler asked for this quantity of opium, and alleged that his wife was in the habit of taking it, and wished to have some with her on their journey. The second time he called on the doctor he got more opium, and said that the opium he had received before, was lost in the chamber-pot. On his third visit to the doctor, he received another puke. The doctor saw the deceased on the evening preceding her death. She then complained of severe burning and pain in the stomach, and such a degree of soreness as to render the pressure of the bed clothes intolerable: her extremities were cold, and her pulse fluttering, intermitting, and feeble.

Two months after the interment of the deceased, she was taken up and the body opened for inspection in the presence of Drs. Miller, Atwater, Joseph White, and Delaus White.

The stomach was removed and opened by Dr. Delaus White; and on examining the inner coats of it *there appeared to have existed inflammation*; there was but a small quantity of fluid in the

stomach, of a very dark appearance. *Small particles of a vitreous appearance* were found in the stomach, some of which had penetrated into it; on breaking these particles with a knife, they were white inside. There was likewise found a substance, which resembled opium, in the stomach. In the intestines, also, these white particles and opium were found.

Dr. Miller took about two tea-spoonfulls of the contents of the stomach containing some of these particles; he diluted it with a pint of water; and then dipped two glass rods, the end of one in a solution of nitrate of silver, and the other in pure ammoniac, and brought the two ends of the glass rods so dipped, in contact on the surface of the water, in the vessel containing some of the contents of the stomach, and a precipitate of an orange colour took place: this he repeated frequently, with a similar result. He also placed some of those particles on heated iron, and a dense white fume arose from their combustion. Some of them were placed between two plates of polished copper; these were bound together by an iron wire, and were then placed on fire until they were brought to a red heat; on being removed, cooled, and separated, these plates were found to be whitened in a circular form towards their interior edges.

Dr. Delaus White stated, that he *found the stomach and intestines in a highly inflamed state*; that small white particles were found in the stomach, some of which had penetrated its coats; he likewise found what he supposed to be opium in the stomach, in considerable quantity. He repeated the experiment with copper, and the white particles found in the stomach, as stated by Dr. Miller, with the same result. The experiments with the contents of the stomach, and the nitrate of silver and pure ammoniac, mentioned by Dr. Miller, was tried by Dr. White but no satisfactory precipitate took place, which he attributed to the turbid state of the contents of the stomach. *His opinion is, the particles were arsenic, and supposes the experiments made by Dr. Miller are infallible.*

Dr. Joseph White.—Saw the hard vitreous particles and a substance resembling macerated opium, in the stomach—many of these particles were deeply imbedded in the coats of the stomach; at the first view they had a yellowish appearance, but on being broken with a knife appeared white;—the same appearance of

particles he discovered in the smaller intestines, from one to two feet from the orifice of the stomach. Some of the fluid contained in the stomach was put into a phial, containing a solution of the sulphate of copper and sub-carbonate of potash; after standing for some time a copious green precipitate took place, which however, was darker than that which takes place in the process of making Scheel's green. He made the experiment with arsenic and copper, and found the same white appearance as stated by Dr. Miller. He also repeated the experiments of Dr. Miller on the contents of the stomach; but the turbid state of the water in which the contents of the stomach were dissolved, prevented him discovering the orange colour of the precipitate. He places no reliance on this experiment.

Dr. James Hadley, professor of Chemistry at Fairfield, having heard the testimony of the physicians, gave it as his opinion, that the *particles* must be arsenic; he had no doubt of it. He thinks the precipitate mentioned by Dr. Miller, which appeared in the experiments of nitrate of silver and pure ammoniac, with the contents of the stomach, as characteristic of arsenic.

The Jury found the prisoner guilty by their verdict.

Report of Wm. James Mac Neven, M. D. and professor of Chemistry in the University of New-York, made to his Excellency Governor Clinton, in compliance with his demand *of my remarks at large on the scientific part of the testimony* in the case of Abraham Kessler, indicted for poisoning his wife with white arsenic and laudanum, and found guilty by the verdict of the Jury.

1. The scientific part of the testimony is contained in the evidence of the physicians who saw the deceased before or after death. Dr. Burton Carpenter was applied to for medicines during her illness, and saw her shortly before she died, for the first and only time. Previously, he had furnished powders to be administered to her, composed of opium, camphire and emetic tartar; and early in the complaint, *i. e.* on Monday or Tuesday, gave prisoner half an ounce of opium; but states on his cross examina-

tion, that when he visited her on Thursday evening, when she appeared to him dying, *he saw no symptom which led him to believe that she was dying, because she had taken too much opium.*

2. After having been buried two months, the deceased was dug up to be examined. Dr. James W. Miller was present at the opening of the body, and testifies, "there appeared to have existed an inflammation." Now inflammation proceeds from so many and such various causes, that physicians are very generally agreed nothing certain can be learnt from the appearance of it after death; especially when putrefaction of the parts is far advanced, as it was in this case of two months interment. It is true, that if* there is poisoning from arsenic taken by the mouth, there must of necessity be inflammation of the stomach; but the converse does not hold, and where there is inflammation there is no manner of necessity of its being from arsenic. Any conclusion to be drawn from the appearance of inflammation in this case, must, therefore, depend for corroboration altogether on other facts.

3. Dr. Miller and Dr. Joseph White, though they evince considerable acquaintance with the subject of arsenical poison, and the best modes of detecting it, have, nevertheless omitted so many important circumstances in the experiments they made, and neglected other experiments so entirely, that their testimony is wholly unsatisfactory.

Dr. James W. Miller found attached to the inner coats of the stomach and in the smaller intestines, some particles of a vitreous appearance, which showed white when scratched with a knife. Some of those particles were placed on a *heated iron*, and a dense white smoke arose from their combustion.

REMARKS.

In the first place, the white dense smoke *alone* proves nothing, I placed corrosive sublimate, calomel, tartar-emetic, oxide of bismuth, each of them on a heated iron, and they rose with a smoke

* A case is reported to have happened in Paris, in which a young person is said to have been poisoned with arsenic, without inflammation. The death, however, was sudden.

more or less dense, and with most readiness in the order I have named them: The first and second very readily; the third and fourth, when the iron was red hot. Now, it will be recollected, that one of these substances, namely, the emetic tartar, was given by Dr. Burton Carpenter to the prisoner, for the purpose of being administered to the deceased.

4. Dr. James W. Miller put some of the same particles between two plates of polished copper, and placed those on the fire until they were brought to a red heat. On cooling, he found the plates whitened towards their edges.

REMARKS.

I put *oxide of tin*, commonly called putty of tin, between two plates of bright copper, and surrounded it with a circle of powdered charcoal, after the best manner of making the experiment with arsenic, then brought the plates to a strong red heat, and the consequence was a whitish stain towards the edges of the copper.

I made another experiment after the same manner with calomel, and there appeared an irregular whitening towards the edges; but less distinctly than in the former case.

I made a third experiment with charcoal alone, and having raised the heat pretty high, there was left in the place of the charcoal a pale brass-coloured circumscribed spot, that appeared white in comparison of the red copper-colour round it. Rubbing did not at all lessen this whitish stain.

An experienced eye would perhaps distinguish all these stains from the whitening of arsenic; but in a capital case I would not like to convict on a shade of colour.

5. In his cross-examination, Dr. James W. Miller accounts for there being no garlic smell discerned, when the white powder found in the stomach of the deceased was put on heated iron and between the copper plates, by saying, that tar was kept burning in the room, and that this, together with the smell of the corpse, might have prevented his discovering it

REMARKS.

The true reason is not here assigned. Neither the odour of garlic nor the stain on copper is produced by the white oxide of arsenic, when heated, without the addition of some inflammable ingredient. If the white substance was really oxide of arsenic and that it had been thrown on a live coal, or on a hot iron surrounded and confined by carbonaceous matter, a smell of garlic would infallibly have been felt; for then the oxide would have been, at least, partially reduced, and it is in this or the entirely metallic state it burns with an aliaceous smell. To have omitted these precautions, or seemingly not to have known their indispensable necessity, proves a want of familiarity with chemical experiments in the physicians, and tends very much to weaken our reliance on all their chemical conclusions. But even the smell of garlic, if not corroborated by other concurring facts, would not have been enough, for hydrogen gas burns with a faint smell of arsenic.

6. Dr. James W. Miller took home about two tea spoonfulls of the contents of the stomach, and diluted them with a pint of water. He made experiments with this fluid and obtained a certain precipitate.

REMARKS.

The notes of the trial do not inform us whether the doctor diluted the contents of the stomach with distilled water, or clear rain water, or common well water. If with the latter, little or no reliance can be placed on the experiments; for there is no well water whatever, even the best, but will afford a precipitate with nitrate of silver. Dr. Miller performed with the diluted contents of the stomach the experiment of Mr. Hume, as modified by Dr. Marcet, and says there was a precipitate of an *orange colour*. I often made the experiment, and always obtained a *yellow* precipitate, such as that obtained by Hume and Marcet. On the present occasion I made the following. I took a glass of lime-water and presented to the surface of it a glass rod, dipped in a solution of nitrate of silver, and another dipped in aqua ammoniæ—there was immediately a copious precipitate of an *orange brown* colour by reflected light. The experiment will succeed with or without ammonia.

The public journals acquaint us with the opinion of Mr. Brande, of the Royal Institution of London, occasioned by a trial in Cornwall, of a similar nature it would seem, with this. He says that the yellow precipitate, which white arsenic produces in a solution of nitrate of silver, exactly resembled that which *phosphoric acid* occasions, and that both are soluble in ammonia. Mr. Brande concludes, that in any case of importance no reliance should be placed on the above test. I repeated the experiment with the glass rods, only substituting phosphoric acid for an arsenical solution, and the nitrate of silver occasioned a precipitate; but not yellow: however, the phosphoric acid now in my possession, is some recently procured from London, and I find it is mixed with nitric acid. To this circumstance may probably be owing the difference of colour in Mr. Brande's and my results.

7. Dr. Delaus White repeated the experiment of Dr. Miller, putting some of the white particles found in the stomach of the deceased on heated iron, and also between two plates of copper, but since he does not at all vary or correct the process, the observations already made, No, 5, apply with equal force to his testimony.

8. Dr. John Atwater washed some of these particles on white paper, and says "it had the appearance of arsenic." I deem it extremely difficult, if not impossible, to distinguish with certainty, any white mineral powder from another in such circumstances. He also says, the white fumes are considered a test. Chemists do not deem them such where they are unaccompanied with a garlic smell.

9. Dr. Joseph White testifies, "that some of the fluid of the stomach was put into a phial containing a solution of sulphate of copper and *sub-carbonate* of pot-ash, and that the precipitate was darker than what takes place in the process for making *Scheele's green*."

REMARKS.

The fact is, *Scheele's green* is never obtained by using *sub-carbonate* of pot-ash. To obtain that, *pure* or *caustic pot-ash* must be employed, and it should be first combined with the arsenic in

a separate vessel, and then the sulphate of copper will be precipitated by the compound of a very remarkable green colour. But even this experiment is *inconclusive*. I took the *expressed juice of onions* and added to it a solution of sulphate of copper: immediately the whole was turned of a beautiful green not to be distinguished in appearance from that of *Scheele's green*.

10. Dr. Joseph White repeated the experiments with the plates of copper, but with no other result than what was obtained in my experiments with oxyde of tin, &c. No. 4.

He repeated the experiments of Dr. Miller on the contents of the stomach, but we are not informed in what kind of water he dissolved them. He also looked for an *orange-coloured* precipitate, which is not the characteristic one. He himself places no reliance on this experiment, and in that he is correct.

11. Dr. James Hadley, professor of Chemistry, at Fairfield. His testimony is only approbatory of the experiments and opinions of doctors Miller, Delaus and Joseph White, and must partake of the same fate.

GENERAL REMARKS.

Some of the results obtained in the experiments of the physicians, are such as arsenic will afford, but not exclusively; nor can any reliance be placed on any one or all of them, unsupported by others more decisive. I have shown that the same, or some very similar to them, proceed from other and innocent substances. At the same time the unerring signs of arsenic were not had at all, nor were the most proper means taken to procure them.

The only thing to be relied on, in the opinion of the best chemists, is the *exhibition of the metal itself in its metallic lustre and state*. This thing is by no means difficult to perform, and I show it every winter to my class, together with all the other experiments of arsenic, in comparative approximation. In the metallic state, the character of arsenic is clear and unequivocal, and it could have seldom been placed more easily beyond all possible doubt than in the present case, because it appears there was enough of the white matter found in the stomach for every ne-

cessary trial. Indeed the weight of a single grain is sufficient, and I usually employ this quantity only, in order to show my students with how little it can be effected.

A given quantity of the white powders is to be mixed with three times its weight of black flux, and carefully put into a tube of thin glass, eight or nine inches long, a quarter of an inch wide, and coated at its lower end, which should be hermetically closed, for one or two inches. The upper end should be loosely stopped, and the coated end placed upright in a chaffing-dish of red hot coals. In a little time, if there be arsenic in the tube, it rises with its metallic lustre; and adheres to the sides of the tube. The tube should be broken as soon as cool, and the reduced metal laid on a hot iron; a dense smoke then arises, and a smell of garlic is perceived.

The arsenic might next be further identified by putting a small quantity between two polished plates of copper, surrounded by powdered charcoal, and exposing them to a low red heat. If the included substance be arsenic, a white stain will be left on the copper. In this way every part supports another, and there is no possible ambiguity,

But as those experiments, which are alone certain, were omitted, and no experiment performed with unexceptionable accuracy, I must give it as my opinion, confining it, however, to the scientific part alone of the testimony, that the indictment for poisoning with arsenic is not substantiated by the evidence of the witnesses.

All which is respectfully submitted.

Wm. JAMES MAC NEVEN.

New-York, September 26th, 1817.



Experiments made at the request and in the presence of a committee of the Legislature of the state of New-York, and of several physicians, on the Oxydum Album Arsenici, &c.

Experiment 1st.—All the solution glasses were previously well washed in *distilled water*.

1st. A quantity of common pump water was poured into glass No. 1.

2d. An equal quantity of snow water into glass No. 2; and

3d. An equal quantity of distilled water into glass No. 3.

To each of these samples of water, placed on the same stand and in the same light, a few drops of very pure nitrate of silver were added.

In No. 1, a copious white precipitate immediately occurred. In neither No. 2 nor 3, did there occur the least perceptible precipitate. After waiting a sufficient length of time, about the tenth of a grain of muriate of ammonia was added to Nos. 2 and 3; the white precipitate instantly occurred. The object of this experiment, was to show that experiments, made with a view of ascertaining metallic precipitates, ought to be made with pure water; the snow water, No. 2, in this instance, indicated no impurity.

Experiment 2d.—1st. I took ten grains of white oxyd of arsenic, and thirty of sub-carbonate of potash, and by means of a lamp, dissolved them in distilled water. I put a portion of this solution into a clean glass, and diluted it with a quantity of distilled water.

2d. I next took a common white onion, and bruised and maturated it in distilled water. This infusion was filtered and put into a clean glass.

To No. 1, or arsenical solution, two glass rods, one dipped in a solution of nitrate of silver, the other, in aq. ammonia, were approached at the same moment, an orpiment yellow precipitate, with a slight tinge of green, immediately fell, the green almost instantly disappeared.

The same process was followed with No. 2, or infusion of onion; but with so slight a variation of colour (if any) that it could not be named, and no precipitate at all.

Experiment 3d.—A solution of white oxyd of arsenic was made in distilled water.

1st. A portion of this solution was put into a clean glass and a little pure pot-ash in solution was added to it.

2d. A portion of the infusion of onion was put into another glass.

To each of these, was added, by drops, a quantity of a solution of sulphate of copper. In No. 1, a bluish green precipitate appeared. In No. 2, no obvious green colour appeared, and no precipitate.

3d. A small portion of the solution of arseniate of potash was put into a glass and diluted with distilled water; on adding a few drops of a solution of sulphate of copper, a beautiful green precipitate instantly formed, resembling what I should call Scheele's green. This experiment has been twice repeated with the same effect.

Experiment 4th.—I took eight pieces of copper, about one and three quarters of an inch square, had them planished and burnished on one side.

No. 1. I surrounded five grains of oxyd of bismuth, with a circle of charcoal, finely powdered and moistened with a little oil, on the polished surface of one plate, placed the polished surface of another accurately upon it, and bound them tightly together with a binding wire.

No. 2. I treated five grains of oxg. muriate of mercury in precisely the same manner.

No. 3. Five grains of tartrite of antimony and potash were treated in the same manner.

No. 4. Consisted of five grains of white oxyd of arsenic, managed precisely as in the former cases. Nos. 1, 2, 3, 4, as just described, were subjected to an equal degree of heat, for the same length of time, (ten minutes.)

On examination, the pair of plates, No. 1, exhibited indeed a slight whitish spot in the centre of the plates, where the bismuth was in contact.

Nos. 2 and 3, had the copper hue in different places impaired, and in some places permanently a little whitish, surrounded by a narrow irradiant disk.

No. 4. Exhibited the unequivocal silver-like alloy.

All these plates were carefully cleaned, rubbed with a little coarse paper and subsequently with a little fine chalk.

I should have no hesitation in stating, that the experiments, 1, 2, 3, and 4, all of which produced changes on the surface of the copper, decide the question as to the appearance of the alloy of copper and arsenic, in which there is, comparatively, a marked difference of aspect from the other three.

Experiment 5th.—1st. Oxyd of bismuth and tartrite of antimony and potash were each exposed in equal quantities, on an iron heated to redness; they were both, to a certain extent,

volatilized, but without any sensible aliaceous odour; a portion of each was also placed on ignited charcoal, gradually volatilized, but no odour.

2d. An equal quantity of white oxyd of arsenic was placed on the heated iron, the white fumes rose in profusion; a slight, but obvious aliaceous odour was present. I will not be certain, however, that some small particles of carbonaceous matter might not have adhered to the iron, which gave rise to it. But on ignited charcoal, the aliaceous odour was strong and pungent.

From Scheele's own directions for preparing the green, (vide Murry, vol. 3. page 356, 2d. ed.) we are of opinion that Dr. M'Neven is inadvertently in error.

The following Paper was read at the American Philosophical Society, on September 18, 1818.

The Society conceiving the paper to be of public importance, gave permission to make known its contents, previous to its regular insertion in their Transactions.

ON THE TESTS OF ARSENIC.

HAVING undertaken to re-publish some English Tracts on Medical Jurisprudence, I instituted some experiments on a test for the presence of arsenic, copper, and corrosive sublimate of mercury, (the usual substances employed as poisons) in consequence of the uncertainty that at this moment exists, whether any test of arsenic in particular, except the actual production of metallic arsenic, is sufficiently marked, to afford conclusive evidence of its presence to a jury, either on a coroner's inquest, or in case of an indictment for murder by means of poison.

Formerly, the only tests employed to discover the presence of this mineral were, the garlic smell arising when arsenic is projected on hot coals; and the white stain given to copper, when arsenic is confined between two pieces of that substance, and exposed to a full red heat. Dr. McNeven, in his report to Governor Clinton, on the case of Abraham Kessler, lately executed at Schoharie, in New-York state, for poisoning his wife with arsenic, under circumstances not creditable either to the chemical knowledge of the physicians, whose evidence influenced his condemnation, or to the jurisprudence of the state, which directed his execution, has shown decisively that these appearances are not sufficiently conclusive: because a white stain may thus be produced by oxyd of tin—by calomel—and even by charcoal alone, to a certain degree: and because a white fume will arise from the sublimation of many substances: and the odour of hydrogen sometimes approaches that of garlic.

He concludes with much appearance of reason, that in the present state of our chemical knowledge, no evidence ought to be conclusive to a jury, but the exhibition of the arsenic itself, sublimed in its metallic form.

A late case of supposed poisoning with arsenic in this city, shows the very great importance of finding some good test of its presence.

Beside the above processes of ancient date among chemists, endeavours have been used to detect arsenic, by forming Scheele's green arseniate of copper: but the juice of onions added to sulphate of copper, will produce a green colour hardly distinguishable from some of the usual shades of Scheele's green.

In the month of May, 1809, Mr. Hume of Long Acre, announced in the Philosophical Magazine of that month, the nitrate of silver as a test of arsenic. Recommending a solution of lunar caustic in distilled water, and a solution of the arsenic in sub-carbonate of soda. In a paper of May 14, and of July 13, 1810, inserted in the London Medical and Physical Journal, he proposes converting the arsenic into an arseniate of potash. He published experiments on these his proposed tests, in the Philosophical Magazine, October 14, 1812. Afterwards, Dr. Marcet, an excellent chemist, proposed joining the alkalies of potash or ammonia, to the nitrate of silver. Thus, to a solution of white arsenic in distilled water, add a few drops of common sub-carbonate of potash, and then a small portion of nitrate of silver: or to such a solution of white arsenic in distilled water, add, by means of a glass rod, a drop or two of a solution of nitrate of silver, and then a drop of common carbonate of ammonia; in either mode of performing the experiment, a bright yellow precipitate will be formed. After this, Mr. Hume, in the Medical and Physical Journal, and in the Philosophical Magazine, August 9 and 10, 1812, published experiments on the utility of this combined test.

In the Annals of Philosophy however, vol. 7, p. 236 and vol. 8, p. 153, the accuracy of this test is brought into doubt. Mr. W. Phillips, in a letter to Dr. Thomson in the book and page last cited, speaks as follows:

Extract from a letter of Mr. R. Phillips, London, May 25, 1816, to Dr. Thomson, inserted in the Annals of Philosophy, vol. 8. p. 153.

“ In the Annals of Philosophy, vol. 7, p. 236, you also mention that the experiment of a student at Guy's hospital, had occasioned a doubt whether the yellow colour of arseniate of silver is suffi-

ciently characteristic of that substance, to prevent it being confounded with phosphate of silver.

“ I have made many comparative experiments on the subject, and I am warranted by the results, in asserting that it is impossible, in many cases, to distinguish arsenite from phosphate of silver. I do not mean to deny, that by special management, those who are previously acquainted with the nature of the substances on which they are experimenting, may produce slight shades of difference ; but whilst engaged in investigating the subject, I repeatedly obtained, without any care as to proportions in either case, precipitates of arsenite of silver and phosphate of silver, which so perfectly resembled each other, that to distinguish them was impracticable : consequently it seems to me, that silver can no longer be admitted as a test of the presence of arsenious acid, without the corroboration of additional evidence. I remain, &c.
R. PHILIPS.”

This proceeds on the supposition of the presence of phosphate of soda, either existing in the gastric fluid, of which there is no proof, or taken as a medicine.

Mr. Prideaux also, in the London Medical and Physical Journal, for the year 1818, has denied the accuracy of this test of Mr. Hume ; but it appears to me, the latter gentleman has much the advantage over Mr. Prideaux, in this controversy.

At a late trial at the assizes at Launceton, still further doubt was thrown on this test. It will be fair, however,* to detail Mr. Hume's process of employing it. Mr. Hume, in answer to Mr. Prideaux, page 281 of No. 236, London Medical and Physical Journal, says—

“ ANOTHER instance of poisoning by arsenic occurred lately, in which the management for detecting the poison devolved entirely upon myself. As I may find it necessary to allude to this case on future occasions, as well as noticing Mr. Prideaux's last letter, it will be requisite to detail the particulars, the principal part of which are already before the public, having been inserted in some of the London Newspapers, especially in the *Star* of the 22d of July.

* Mr. Hume's paper was not read as part of my Memoir before the Society. T. C.

On the 22d of May last, a coroner's inquest was held at the King's Arms, Little Woodstock-street, Mary-le-bone, on the body of a young lady, who, from disappointment in love and a consequent state of despondency, had put a period to her life by the means of arsenic. The family at first did not suspect the true cause of her death, although this was preceded by the most violent and agonizing symptoms; neither did the medical gentlemen, who attended the deceased, consider the signs to have indicated poison as the original cause; on the contrary, he declared the disease to be *cholera morbus*. In justice to this gentleman, however, it is my duty to clear him from the slightest imputation of error in judgment or practical skill; for he never saw the unfortunate victim till within a few minutes before she died, and, on his witnessing some of my experiments, he did not hesitate to give his decided opinion in favour of the verdict returned by the jury. As cholera morbus may become a kind of stalking-horse, I would have this disease narrowly watched with the most jealous attention at all times, and through every step of its progress; for its symptoms are, by some, acknowledged to be very similar to those occasioned by arsenic.

Mr. Holdsworth, of Upper Mary-le-bone-street, another respectable surgeon and friend of the family, was, I believe, the first person whose suspicions induced an enquiry; these, however, were incited rather by the previous state of the young woman's mind, than the morbid derangements which attended her last moments. This gentleman, by recommendation, brought a small coffee-cup to me, out of which it was conjectured, the deceased had drunk something of a deleterious nature. As this cup had a handle, and was apparently dry and empty, I considered that, if any arsenic remained in it, I should find it at one side in the bottom; where, from its weight, the poison would naturally subside, while the cup was held in the usual position to the mouth, with the *right* hand. To this part of the vessel I applied a most minute quantity, a mere fractional part of a drop of the ammoniaco-nitrate of silver, conveyed on the point of a small fragment of window-glass. Knowing that this test will instantly detect arsenic in its *dry* state, as well as in solution, I inspected the spot through a magnifying lens, and readily discovered that the test indicated arsenic and that this proof alone would be sufficient to warrant our pro-

ceeding to an inquest. Mr. Holdsworth and I then agreed to the propriety of dissection, and that the contents of the stomach should be obtained to aid the enquiry: accordingly, the operation was performed, and the quantity abstracted amounted to nearly twelve ounces, or three quarters of a pint, of which Mr. Holdsworth sent to me about an eighth part. The coffee cup and the small phial of the slimy dark coloured fluid taken out of the stomach were, therefore, the only sources in this case for the experimental enquiry, which, in the sequel, afforded the most ample and indisputable evidence of the presence of arsenic. The test was cautiously applied to the cup in the first instance, in such quantity as to leave some of the arsenic in reserve for other operations; and, in the present instance, my care was rewarded by success, for a more satisfactory example of evidence from chemical investigation would be altogether unreasonable, unless it were to satisfy the fastidious and ignorant.

I shall briefly relate the method I pursued, conceiving that your readers, particularly your correspondent Mr. Prideaux, will duly appreciate the superior value of tests, and not rely so exclusively on the metallic reproduction of the arsenic, which, I again affirm, is neither so practicable nor decisive.

The coffee-cup contained nearly four ounces of water, or a quarter of a wine-pint, as I afterwards ascertained; and, having no reason to expect any very sensible quantity of arsenic, I began cautiously in this way. About one hundred drops of distilled water were conveyed to that part of the bottom of the cup already described. This was heated slowly by aid of a spirit-lamp till the water began to evaporate, the vessel being gently shaken to promote the solution; the cup with its contents were then removed and allowed to become quite cold. In all cases where *ammoniaco-nitrate* of silver is to be employed, the solution to be examined should be *cold*. A few drops of this solution were then conveyed by means of a piece of glass, from the cup to the surface of a morsel of writing paper, which I find a very convenient receptacle for demonstration. On applying the *ammoniaco-nitrate* in the usual way, the whole of the solution on the paper assumed the most decided signs of arsenic,—the same fine yellow, and the same flacculent and *curdled* appearance which so conspicuously distinguishes this precipitate from *phosphate* of sil-

ver: the effect was, indeed, so decided and the precipitation so ample, that a saturated solution of arsenic could not have afforded a more satisfactory result.

The same process was followed with ammoniaco-sulphate of copper in lieu of the silver test, and the evidence was equally conclusive;—*Scheele's green* was the consequence, a precipitate which eminently secures us against the error of confounding arsenic with phosphoric salts. In regard to that fabulous affair—the decoction of onions, I hope to hear no more of this and the other absurdities of a contemporary phalanx.

Having now obtained the true tint and peculiarities of arsenite of silver, and also of arsenite of copper (*Scheele's green*), and those from so small a portion of the solution, I did not despair of gaining, from this source alone, enough of the poison to substantiate my evidence of its presence and identity.

The remainder of the solution was then carefully poured out, and one ounce of distilled water put into the cup. This being boiled and allowed to cool as before, gave with the tests exactly the same evident signs of arsenic. During the operation of boiling, the cup was frequently agitated so as to facilitate the solution, and wash down every particle of arsenic that might have attached itself to the sides, even to the edge of the cup. In this way I proceeded, by repeated application of one ounce of water at each boiling, till I had obtained at least eight ounces of solution of arsenic. Even to the last I found some slight indications of this substance, although not so decided as to quantity; for, after the three or four first affusions, there was a regular and rapid diminution.

That portion of the contents of the stomach which I received from Mr. Holdsworth, was allowed to remain undisturbed for at least twelve hours, when it appeared in three distinct strata: the superior stratum was more fluid and nearly transparent; the second had the appearance of dirty coloured water-gruel, and the bottom part was similar to the last, but more viscid in consistence and denser in colour.

The upper stratum was carefully examined, both in its primitive state and when diluted with distilled water, by applying the tests. Neither the silver nor copper test, however, showed the least indication of arsenic. The simple nitrate of silver, indeed,

gave an opaque cloudy appearance to the fluid, which I ascribed to one of the most prevailing salts in the human system—the muriate of soda.

I pursued the same means of enquiry with the second stratum, but with no better success; I could gather no proof of the existence of arsenic, either before or after dilution, and at last boiling; so that the fair deduction from these experiments is, that there was no arsenic in the state of *solution* in either of those portions of the contents of the stomach,—a fact well worthy the attention of experimentalists.

Having discovered none of the metallic poison in the supernatant portions, I did not hesitate to dilute largely, with cold distilled water, the more condensed residue; well knowing from the very insoluble nature of arsenic, that I should run no risk of losing it by mere affusion. After due subsidence, and before I poured off the water, I examined through a high magnifier, the sediment, which still remained of a dark slate colour, and could discern a very few extremely minute white particles, very thinly but not uniformly disseminated through the whole. Here the course I ought next to take was clearly indicated, namely, to persevere, which I did, with repeated affusions and boilings, as had been practised with the coffee-cup, until the whole of the arsenic, if any did exist, should be exhausted and dissolved.

On assaying the first solution, which consisted of only two drachms of distilled water, the tests discovered a very strong impregnation of arsenic; even a single drop or two would yield a fair example and proof by either of the tests; in short it was a strong solution of white oxyde of arsenic, and nothing else, as the following process will clearly evince.

The aqueous solution derived from the contents of the stomach, and obtained by repeated boilings upon the sediment, amounted in the whole to about a pint. The solutions from the coffee-cup were also mixed together and added to the other, so that I then possessed about twenty four ounces of a solution of arsenic. From one-half of this general supply I threw down the arsenic by the ammoniaco-nitrate of silver, and the arsenite of silver thus formed was carefully washed, dried, and put into a proper glass tube, hermetically sealed at one end. That part of the tube only containing the arsenite was exposed to a gentle heat from a spirit

lamp, till white fumes began to ascend and attach themselves to the interior and upper part of the tube ; and this process was continued, carefully avoiding an increase of heat, more than was barely sufficient for sublimation of the white oxide of arsenic within the bounds of the glass tube, till I was satisfied that I should find enough for my purpose ; I then withdrew the lamp, and suffered the whole to cool. As the sublimation of white oxide of arsenic requires comparatively very little heat, I am astonished that Mr. Prideaux does not attend to this circumstance, for, as he speaks with confidence, I must take it for granted he has a practical knowledge of the subject. But, not to interrupt my process, I shall proceed to say, that I cut off that part of the tube containing the condensed oxyde of arsenic ; this I placed within a test-tube of somewhat larger diameter, containing distilled water ; I then exposed this apparatus to the same lamp, moving and agitating the tube so as to promote solution. Thus I succeeded to regenerate my solution of arsenic, which proved equally susceptible of the tests, and left not a shadow of doubt as to the presence of the same deleterious principle. Is it possible for any phosphate or decoction of onions to interfere with the character of this test? Is there any substance in nature that, under the same circumstances, would *so easily* sublime, and afterwards indicate the same appearances by the same tests so applied? Would any soluble phosphate, even that of ammonia, give the same results? and, I may ask, is not this evidence irresistible?

The unfortunate sufferer, in this case, experienced the same symptoms, and at least in as violent a degree, as the late Mrs. Downing did, whose death gave rise to the trial at Launceston, to which Mr. Prideaux again refers. I am, therefore, more than ever warranted in my opinion in asserting, that in no case whatever can even a strong decoction of onions withstand such excessive and protracted evacuations as took place with these two unfortunate women.

White arsenic, when administered in *substance*, seems to possess a peculiar and insinuating kind of attraction for the villi of the stomach ; so much so, that no emetic can dislodge it. On the contrary, when arsenical *solutions* are received into this organ, there is likely to be a greater chance of safety to the individual and more difficulty to the chemist, if he rely upon the *contents of*

the stomach only for examination, should the poison have been effectual. Hence it should, I presume, be adopted as a general rule, in all cases where professional evidence is required, and where we are ignorant of the mode employed in administering this poison, to select the very *first* evacuations by vomit, or as early as possible; then to examine the contents of the stomach, should we fail in the first research, and that death has followed, especially if the symptoms have the least similarity to those of cholera morbus. In collecting these contents, we cannot be too sedulous in preserving the crude and more solid matter; every thing mucilaginous or grouty in consistence should be separated and preserved; and the villous membrane carefully divested of every thing of an extraneous nature that can possibly be removed. In a case similar to that I have now detailed, a mere atom of arsenic, the very fraction of a grain, would be a most valuable acquisition for evidence, and would establish the truth most completely, seeing that here no signs of arsenic could be found in the *fluid* portion which we procured from the stomach." So far Mr. Hume.

The experiments of myself and of my friend, Dr. McNeven of New York, do not corroborate those of Mr. R. Philips; nor do I lay much stress on the objection from the green colour produced by onion juice, because the presence of onions, if they be present, can be ascertained by internal evidence of their presence, and by enquiry; and because, the emetic and cathartic effects in such a case of death by poison, would effectually carry away all tokens of their presence, if they had been eaten; while the weighty particles of white arsenic in fine powder, would cause them to be entangled and retained in the coats of the stomach.

I consider therefore, Mr. Hume's test, especially as improved by that judicious physician and very able chemist, Dr. Marcet, as a very valuable means, among others, to detect the presence of arsenic. Still, however, great doubt hangs over this and every other test, the sublimed metal excepted. (The test of sulphuretted hydrogen is also ambiguous, from similarity in colour in other metallic precipitates, and from impurity in the gas.)

In the Memoirs of the Columbian Medical Society in this city, 1813, p. 70. Mr. James Cutbush proposes the oxyacetite of iron as a test or re-agent for the discovery of arsenic. But the colour produced with arsenic, is so similar to that which is frequently as-

sumed by oxyd of iron alone; and it varies so much with the degree of oxydation of the iron, that it can in no wise be depended on. Thus, with a solution of common arsenious acid or white arsenic, the common acetite of iron produces a greenish yellow precipitate, while the colour of the precipitate is a bright orange with the oxyacetite of iron.

We find in the *Annals of Philosophy*, for May 1818, p. 390, a new test of arsenic, by professor Brugnatelli, as follows:

Test for arsenic, by Brugnatelli, *Annals of Philosophy* for May, 1818, p. 390.

Boil wheat starch in water; add Iodine till it becomes of a blue colour; dilute it. Add an aqueous solution of the oxyd of arsenic; the colour changes to a reddish hue, and is finally dissipated.

A solution of corrosive sublimate added to the ioduret of starch, produces in it the same change as the solution of arsenic: but if to the solution of ioduretted starch, discoloured by arsenic, we add a few drops of sulphuric acid, the blue colour is restored in its full original brilliancy; but sulphuric acid does not restore the colour of ioduretted starch, discoloured by corrosive sublimate.

This process is manifestly too complicated for practical use, or to be shown or explained to a jury. We want as a test, a substance easily procured, and which will exhibit its effects distinctly to the eye even of an unlettered man: these conditions are found in the chromate of potash, so much used now for procuring the yellow pigment of commerce, called the chromate of lead; plentifully manufactured in Philadelphia, in New York, in Baltimore, and in London, and kept in every chemist's shop.

That chemical tests are necessary, appears from the great uncertainty and ambiguity of the appearances during illness, and on dissection. So that I subscribe thoroughly to the following observations of Dr. John Yelloly, Physician to the London Hospital, in his *Essay on the vascular appearance of the human stomach, which is so frequently mistaken for inflammation of that organ*: published in the *London Medico-chirurgical Transactions* for 1813. In that *Essay*, it is shown, that those appearances which are commonly thought to be the effects of inflammation in the stomach, are in fact, only the consequences of effusion and transudation. His observations are interesting, particularly as they

regard those circumstances which ought to direct the judgment in cases when medical testimony becomes necessary in a court of justice. "The means (says he) of forming a satisfactory conclusion in cases of suspected poison, obviously connect themselves with the proofs, which dissections are capable of affording, of the existence of inflammation in the stomach, during life. There are no circumstances under which medical men have a more serious and anxious responsibility, than in the examinations which they are called upon to make in such description of cases; for while on the one hand, public justice demands from them an unequivocal avowal of the results of their judgment and experience, for the conviction of guilt, it is equally required that their opinions should be founded on an accurate knowledge of what are the effects of natural causes on the human body, and what the consequences of deleterious operation. The most able and experienced men, have found difficulties in making up their minds as to the necessary effects of poisons; and it would be highly important, both for the interests of the public and the credit of the profession, that the means should be afforded of directing the judgment, in those delicate and difficult problems on which medical testimony is occasionally required in courts of justice.

Authors on Forensic Medicine, have been too apt to generalize, without having had the benefit of studying sufficiently, individual cases; and hence the effects of putrefaction and the spontaneous changes which the loss of vitality produces on the human body, have, in descriptions, it is to be feared, been sometimes misunderstood, and sometimes confounded with the proper and necessary operation of poisons.

Some of the most respectable writers on this subject, have represented the effects produced by poisons on the stomach, œsophagus and intestines, to consist in diminished cohesion, inflammation, mortification, erosion and perforation of those organs;* but latter and more particular observation seem to evince, that the only morbid change which may be invariably expected, is inflammation; for the others are either occasional only in their occurrence, or equivocal in their nature; as in the case of mortification or gangrene, which may be assumed to exist from mere

* Mahon's Medicine Legale, tom. ii. p. 308.

darkness of colour. Mortification and gangrene are rare occurrences, in either the stomach or bowels; and they are not noticed by Dr. Baillie, as belonging to the usual effects of mineral poisons, nor by Mr. Brodie,† nor Dr. Jaegar,‡ both of whom have attentively studied the operation of those substances. So far Dr. Yelloly.

Under these circumstances of doubt and difficulty, as to the exhibition of arsenic, and the evidence of its presence, the jury ought to require either the actual production of metallic arsenic sublimed in a glass tube, or some satisfactory reason why that test is not exhibited. Such a reason may be the smallness of the quantity, and its entanglement in the coats or contents of the stomach. But where death arises from the exhibition of arsenic, many grains have probably been taken.

Suppose suspicion to exist of poison by arsenic. The vials, cups, glasses and utensils, used by the deceased, should be closely examined, and all suspicious appearances set aside for experiment; particularly the basins used to receive the ejections from the stomach, should be examined, to see if any powder remains at the bottom. The ejections themselves, also should be examined for appearances of arsenic; of which the white powder can often be distinguished, if not by the eye, by a common magnifying glass of good quality.

If a jury of Inquiry be summoned *super visum corporis*, the body should be opened, and the stomach and its contents examined in their presence: if time be required to examine chemically the contents of the stomach, it may be committed at the discretion of a jury, to a person of chemical knowledge and reputation (which every physician ought to be) to be examined by him on his oath; and the sitting adjourned to some other time, when he may again appear, and be examined by the jury on his oath as to the processes he has used to detect poison, and the result of them.— He ought to be reasonably, and indeed well paid by the county, for his trouble thus taken: a trouble, by no means slight; and requiring much previous study and acquired skill. But these qualifications are legally expected in every expert called in as a wit-

† Farther experiments and observations on poisons. Phil. Trans. 1812.

‡ *Dissertatio Inauguralis de effectibus arsenici in varios organismos necnon de indicis quibusdam venicis ab arsenico illati.*

ness. If he be of opinion that arsenic is the poison, he may be called upon to exhibit either the sublimed metal, or the experiment of Mr. Hume and Dr. Marcet, with the ammoniaco-nitrate of silver, or the experiments I am about to detail as the result of my own inquiries in this question, and which I shall, with permission of the society, perform before them; for in the present state of legal and medical uncertainty, I consider the question as of great importance.

If the arsenic be in sufficient quantity, (to the amount, for instance, of a grain in weight) let it be collected, slightly washed from adhering matter, well dried on blotting paper, dusted with about an equal quantity of lampblack, or finely powdered charcoal, or moistened with a small drop of oil; then folded up in the blotting paper, thrust down to the bottom of a glass tube, from one-fourth to one-half an inch in width, and six to nine inches long, hermetically sealed at the bottom, and loosely stopped by a small cork at the top, to avoid its bursting from moisture. Heat the bottom of the tube gradually, by holding it over a chafing dish or a spirit lamp, or an oil lamp, till the moisture be evaporated: put in the cork, then expose it to a degree of heat amounting to a low red heat, until the arsenic sublimes in the upper end of the tube, in form of shining, blackish, metallic grains, adhering to the glass.

If a minute portion of this metallic sublimate be exposed to a red heat on a hot piece of metal or a burning coal, white fumes, with a garlic odour, will arise, if the substance be arsenic. It will also distinctly whiten copper, if placed between two clean cents, fastened by wire, and heated red. White arsenic (oxyd of arsenic, or arsenious acid, will not exhibit these garlic fumes by mere heat, unless in contact with some carbonaceous substance, or red hot metal, capable of attracting oxygen from the white arsenic.)

If the arsenic cannot be found or collected in substance, or if there be reason to suspect the exhibition of it in solution, (as the mineral solution,) the contents of the stomach should be pressed, the liquid collected, filtered, and exposed either to Mr. Hume's test or to mine. If traces of arsenic be thus exhibited, the liquor should be gradually evaporated; the solid dry residuum folded up in paper, with a drop of oil, and exposed in a glass tube to sublimation.

If the filtered liquor however, exhibits the appearances of arsenic, as indicated both by Mr. Hume and Dr. Marcet's test, and also by mine (to which the test of Scheele's green or Brugnatelli's might be added, though I should not deem them necessary.) I should not have any scruple to depose, that arsenic was present to cause the appearances exhibited by the tests in question; for such an accumulation of proof, cannot be otherwise accounted for.

I shall not take up the time of the Society, by detailing the experiments that led me to the following results, because the results alone are useful; and these I shall exhibit to the Society, when this paper has been read through.

Take then, a conical wine glass or a watch glass; or a clean bright piece of a pane of glass. Put on it the 16th part, for instance, of a grain of white arsenic, or any portion of a grain that may be distinctly visible by the naked eye; on another, as much corrosive sublimate; on another as much sulphate of copper: drop on each, one or two small drops of chromate of potash, whereof the excess of alkali has been neutralized by nitric or acetic acid, according to the usual process of the manufacturers of chromate of lead. In a minute, the copper will give a distinct brown tint; the corrosive sublimate an orange; the arsenic, after three hours, a decided green.

The arsenious acid or white arsenic, attracts oxygen from the chromic acid, which is thus converted into a green oxyd, and precipitates; the alkali combines with the acid of arsenic. This appears to me the easiest method of procuring the green oxyd of chrome. (I strongly suspect the Columbian to have been a chromate of iron.) Thus, the chromate of potash, furnishes a test for the three substances, usually employed as poisons.

In the course of these experiments, I took a young dog, weighing about 20lb. I gave him 16 grs. of white arsenic in powder, enclosed in fat. I left him for three hours. He had vomited up the arsenic, and seemed little affected. I gave him the same day, 32 grs. of white arsenic. At the end of 24 hours, he was well. I gave him 52 grs. more; this also he vomited up, without being much affected. There were slight indications of bloody discharges from the rectum. I waited about 13 hours, and gave him 150 grs. in meat; he was extremely sick; very thin; no appetite; weak; listless; fetid discharges; in 3 days he was well, and is

now running about my house, for I could not bear to attack him again; he has suffered enough. On giving him the second dose of 32 grs. which was taken in rye bread, it continued in the stomach long enough to be half digested, and Dr. Joseph G. Nancrede, who was present, and assisted me at these experiments, took up and placed on paper, some of the ejected matter, which was in a thin pasty mass. The arsenic was finely levigated, and there was no appearance of any white substance in this pasty mass. We took a small quantity and dried it; of this, we took about a grain, and moistened it with chromat of potash in the narrow bottom of a wine glass, and then poured in another wine glass, an equal quantity of chromat of potash alone, to observe more distinctly the effect of the test. In about 2 hours the green colour of the oxyd began to appear in the glass containing the vomited matter. The chromat of potash, was in the state usually employed for making the yellow pigment, the chromat of lead, of which we have four or five manufactories in Philadelphia, and which Dr. Bolman, I hear, manufactures in London. The arsenic I levigated in most of the experiments myself. Fowler's mineral solution, will deoxyd the chromic acid, and exhibit similar appearances. I believe the process now recommended, will not fail.*

I sent at the same time to our American Philosophical Society, another paper, which, though not immediately connected with the present subject, I insert, because I consider it of importance in this country and the West Indies. Few of the physicians here, are aware of the close connection between medicine and chemistry, not merely in Pharmacy, but in Pathology, Semeiology, and the Cure of Disease; a connection, which, strange to say, in the me-

* After a respite of three days, Dr. Nancrede and I, gave the same dog 12grs. of corrosive sublimate; it was expelled partly by the mouth, partly by stool. Next day he took 30 grs. nor did this produce any mortal symptom: it vomited and purged. Our back country farmers find that arsenic has little effect on wolves, for which reason they usually have recourse to *Nux vomica*. Though arsenic is a poison to rats, a horse can take a large quantity without any fatal effect.

dical school of the University of Pennsylvania, is not only left untaught, but denied! (1818, 1819.)

In the yellow fever, the characteristic symptoms are, insupportable head-ach, about the forehead, temples, and back of the head—inflamed eyes—full pulse—great soreness of the carotids and temporal arteries—pain at the pit of the stomach, especially when pressed—nausea—vomiting of acid matter, sometimes intensely so—costiveness.

These in the first stage. Are not all these, the symptoms we feel on having drank too freely of acid wine? Are they not all referable to the morbid acid secretion affecting the stomach, and producing the sick head-ach of indigestion, particularly of intoxication?

Then (*in the second stage*) comes an acceleration and exacerbation of all the symptoms: the corrosive acid setting the teeth on edge; the vomiting more frequent; ejection of matter first green, then like coffee grounds; the alvine ejections yellow, green and black; on dissection, the bile always of a green colour. All these symptoms are not only noticed in accounts of the Philadelphia Yellow Fever, but particularly in a tract before me, entitled, "Rapport, fait à la Société Médicale sur la fièvre jaune qui a régné d'une manière epidémique pendant l'été, de 1817, à la Nouvelle Orleans; par M. M. Gros and Gerardin. Among the symptoms are, "Acide agacant les dents, excoriant la bouche and les levres," p. 9; and in the second stage, presque toujours d'un nature corrosive que brûle la gorge, p. 10. Alvine ejections, yellow, green and black, p. 16. On opening a patient who was carried off, aged 28, they found in the stomach a blackish liquor like coffee grounds; the gall bladder contained bile of a deep green colour: the same appearance of bile in another patient, p. 19. In almost every case, bilious and acid vomitings are noticed." The treatment at New Orleans, was after the French practice; laxatives, clysters, acidulated ptisans, the warm bath and antispasmodics. Of 16 cases reported as examples, oné half were cases of death, and the other half of recovery.

Now I have to observe on these cases: take* the common gall-stone, used as a pigment for water colours, or the healthy yellow

* These experiments were repeated before the Society.

bile of any animal, as of the ox; † add to it sulphuric or any other acid (I used pyrolignic, as being strong vinegar, and answering to the symptoms of the ejected acid) a green colour will be produced in proportion to the strength of the acid. I therefore conclude,

1. That the yellow fever is a violent bilious fever, wherein there is a morbid secretion of acid in the stomach particularly, occasioning the violent head-ach, the greenish vomitings and the corrosive acid thrown up.

A general morbid secretion of acid is produced, extending to the liver, and probably to other glands of the body, corroding and destroying in part their texture, and producing in the gall bladder, insoluble morbid concretions of a resinous character, as noticed by Berzelius.

2. That the long continuance in the stomach of an acid *que brule le gorge*, must disorganize and destroy the villous coat of the stomach, subjected to its action. When it does so, the mortified part so produced, will be thrown up, of a dark brown colour like coffee grounds.

3. That the patient dies, not of the primary disease, bilious fever, but of the symptoms; to wit, the gangrene produced by the long continued action of a strong acid.

4. That instead of acidulated drinks, ptisans of super-carbonate of soda, moderately sweetened, in the quantity, of at least, half a gallon a day—or still better of super-carbonate of magnesia, † are clearly indicated. Seltzer water would be the proper vehicle for these remedies.

5. Premising always *early* and copious bleeding in the first instance; (that is within 24 hours from the first attack :) which in the West Indies is seldom less than four quarts at the first bleeding and generally more: with cathartics of calomel and jalap, and cold affusions.

6. I have good reason to believe, that not only in the violent type of fever called the yellow fever, but in Diarrhœa, in Dysentery, in Hemorrhoids, in Ch. St. Viti, and universally in the morbid state of the stomach called dyspeptic, a morbid secretion of a

* If the ox be not in full health, the bile will be green or olive coloured.

† Pure magnesia* saturates more acid in proportion to its weight than either potash or soda.

preternatural quantity of acid either owing to acid, and acidifiable and indigestible food indulged in—or to that state of gastric debility which induces this morbid secretion of acid, constantly takes place, and forms the most distressing symptom attendant on the disease. So it is in gout and stone: these disorders are owing in great part to an habitual indulgence in that kind of liquid food which induces an arthritic diathesis, a habit of acid secretion; such as wine daily taken as a stimulant after dinner, to aid digestion in the loaded stomach. I have felt this so much in my own case, that I have been compelled to confine myself for the most part, to water and tea for a beverage; and whenever I find by the test of litmus paper, that the perspiratory or urinary secretion, is of a decided acid character, I fly to Castile soap, strong soda water, and solution in seltzer water of super-carbonate of magnesia sweetened. In three days I can produce such a change, that the urine and perspiration will no longer redden the litmus paper; a change that pervades the secretions of the body generally; for I fancy that there is at present no proof of any other passage to the bladder; but this practice manifestly lessens the symptoms.*

The experiments and this view of the subject, show the close connection between chemical considerations and medical practice, and may correct some errors of importance, in the treatment, not only of yellow fever, but several other very troublesome diseases: for indigestion almost always produces morbid acid. The more I see the more I am persuaded, that nine-tenths of the disorders to which we are liable, arise from habitual overloading of the stomach and bowels, and the consequent venous plethora, which disturbs the functions of the liver. T. C.

* Since I drew up this memoir, I have met with the treatise of Dr. Scudamore on Gout and Rheumatism, 2d ed. which fully corroborates my remarks on the change produced in yellow bile by strong acids: but he does not draw the consequences or suggest the treatment, which I have applied to the Yellow Fever and other disorders arising from morbid functions of the liver. I do not quote the passages, because Dr. Scudamore's book is deservedly popular.

Extract from a late London Paper, published in the Richmond Compiler of November 20, 1818.

[The medical practice, and a very proper one, in the back parts of the State of Pennsylvania, and in the United States generally, is for the physician to prepare and prescribe his own medicines: in the sea-port towns, this is left to apothecaries, or rather to apothecaries' apprentices and shop-boys, so that the physician as well as the patient, is very often greatly at the mercy of young persons of this description. This practice in the sea-port towns, has arisen partly from an affectation of apeing the practice of Great Britain, and partly from the gross ignorance in Chemistry and Pharmacy of physicians educated at the medical school of Philadelphia, by far the most fashionable place of resort for medical education in the United States, although the branches of Medical and Pharmaceutical Chemistry are shamefully neglected in that institution. In Great Britain and Ireland, the evil is in some degree counteracted by a strict examination of persons applying to be licenced as apothecaries, as to their Chemical and Pharmaceutical knowledge: still, as the following case shows, great evils may and do arise from culpable ignorance and negligence. I once took an ounce of nitre in lieu of an ounce of Glauber's Salt, which I sent for. The nitre was dissolved by a servant, and I swallowed it hastily. The taste in my mouth afterward convinced me of the mistake; and a gill of brandy with ginger saved me from danger: but the public ought to be made acquainted with these mistakes, that they may be on their guard. T.C.]

CORONER'S INQUEST.

An inquisition was taken yesterday afternoon before Thomas Sterling, esq. coroner, at Sugar Loaf, King-street, Drury-lane, on the body of Michael Dillon.

Mr. Fred. Accum, No. 11, Old Compton-street, Soho, Surgeon stated that on Monday morning he was called upon by the father of the deceased, to examine an article which he produced in a paper, part of which he said had produced the death of his son. He found the contents to be Epsom Salts, and said to him that

that had not produced the death of his son. He viewed the body, and offered to open it for the purpose of ascertaining the cause of the death; the friends of the deceased declined having the body opened, and he applied to Mr. Le Brun, Surgeon, King-street, Convent-garden, (of whom he was informed the Epsom Salts was bought) to know what he had sold the deceased. He there learned that a young man had purchased, on the preceding night, one ounce of Epsom Salts and one ounce of Acid of Sugar, (a deadly poison) in paper. The articles resemble each other. Witness was of opinion that it was extremely improper to sell articles resembling each other, one being a poison, without its being written upon in large letters, "poison." Mr. Le Brun informed him that he did offer to write "poison" upon the Sugar of Lead, but the young man declined it.

——— Dillon deposed, that the deceased was her brother; he was well in health on Saturday night, except a breaking out upon his hand, and a doctor advised him to take some salts. The deceased purchased some salts at Mr. Le Brun's shop, and told her on Saturday night to mix the powder the next morning in some water for him to take. About six o'clock on Sunday morning she went to a cupboard in the deceased's bed-room, and saw two papers of an equal size, and both of the same colour. She supposed that they both contained Salts. She called the deceased to breakfast, and when she had dissolved the contents of one paper in warm water and gave it to the deceased, he drank about half of it, and became very sick and soon after stamped on the floor and said—"My inside is burning—Oh! the boot top stuff." She went to Mr. Le Brun's, and he sent an emetic. After she returned home her father came in; he was distracted. She held the remains of the poison in her hand: her father endeavoured to seize it, and declared he would go with him, and take the remainder of the poison: she threw it out of the window to prevent him. The deceased lived about an half hour after he took the powder. Neither of the papers were written upon. The deceased spoke on Saturday about cleaning his boot tops.

Mr. Accum being re-examined, stated, that he had, at the request of the jury, opened the body, and from the appearances after dissection, he was of opinion the death of the deceased was caused by his taking some corrosive substance: Acid of sugar would produce the effect.

Mr. John Cooper, assistant to Mr. Le Brun, chemist, King-street, Covent-Garden, stated, that on Saturday night last the deceased came to Mr. Le Brun's shop, and purchased an ounce of Acid of Sugar, for which he paid one shilling. He was going to write the name of it on it, when the deceased said, "never mind," and seemed in a hurry. He was about to depart, when he asked for an ounce of Epsom Salts, and left the shop immediately.

Coroner—A superficial observer might mistake Acid of Sugar for Salts?

Mr. Cooper—There is a difference in appearance and in taste.

Coroner—Yes, one is very sour, and the other extremely nauseous?

Mr. Cooper—One is larger in the crystals than the other.

Juryman—I am of opinion Mr. Cooper's conduct was extremely culpable. Pray Mr. Cooper if you had seen the two papers in a few hours afterwards, could you by a superficial view, have told which contained the Salts and which the Acid of Sugar?

Mr. Cooper—No, I should not.

Juryman—Then I hope this will prove a caution, not only to you but every other medical man.

Mr. Sterling, in summoning up the evidence, marked the impropriety of Mr. Cooper's conduct; he said that he had acted with great incaution, but not with any criminality.

Juryman—Every medical man ought to have the 'poison' written on deleterious drugs.

Coroner—Your verdict will then be the deceased 'died from taking acid of sugar in mistake of salts;' If any gentleman is of a contrary opinion he will say so.

Juryman—I differ. I think the deceased's death was caused by the culpable neglect of Mr. Cooper and I wish that to be mentioned in the verdict as a caution to all medical men, and which may be the means of preventing a recurrence of such a lamentable case.

One of the jury thought such a verdict would prove injurious to Mr. Cooper's reputation.

The coroner said that it was truly an unfortunate accident; there was some negligence on the part of Mr. Cooper, but that he had acted wilfully was totally out of the question.

After a long conversation and warm discussion, the following verdict was recorded ;—" died in consequence of having taken a large quantity of acid sugar instead of a dose of salts, which it strongly resembles."

An amendment afterwards was agreed to, that the words 'a large quantity' should be omitted, and the words 'half an ounce' should be inserted. It took place at the same instance of the surgeon, that the medical world might be acquainted with the effects of half an ounce of acid of sugar, which dispatched the deceased in sixteen minutes.

The deceased was 27 years of age, and was to have been married in a few days to a young lady who has been ever since in a state of distraction.

ON NUISANCE.

THIS subject may be divided into nuisances technically so called, for which individuals offending are punishable; and nuisances in popular language, that are the proper subjects for the interference of the legislature, and objects of municipal police.

Nuisances punishable by Indictment, are,

a. Obstructions in the highways.

b. Articles thrown into the streets and highways, of an unwholesome or offensive nature, as filth of all kinds.

c. Accumulation of filth within the limits of private property, by which the health or comfort of the neighbourhood may be affected.

d. Unwholesome trades exercised in populous places, as those of Tanners, Curriers, Tallow Chandlers, Slaughter-houses, Glue-makers, Manufacturers of Acids, Distillers of Ammonia, Coal Gas Manufactories, Smelting-houses, Manufactories of Coak of Coal, or of Wood, Distillers of Turpentine, Makers of Varnishes, and generally any occupation by which the safety, health, or the reasonable comfort of the neighbourhood, is materially affected.

In all these cases, the general rule is this: the fact of injury to the legal rights, the health, or comfort, of the neighbourhood, must be made out before a jury: wherever this is done, there is sufficient proof of nuisance, punishable at the discretion of the court.

Cases such as those enumerated, are proper objects perhaps, for legislative regulation; but where no positive law is broken, the facts must be made out.

For instance: in Manchester, in the year 1811, six owners of Steam-engines, and Dyer's furnaces, were indicted for not using the known contrivances to burn and consume the smoke that arose from their fire-places: they were fined by the Court of Quarter Sessions, 100*l.* sterling each. (Monthly Magazine for 1811.) and

properly : for in such a manufacturing town, they so accumulate, as to endanger the health and destroy the comfort of the inhabitants. But if, as in Philadelphia, there were two or three only, it would be difficult to show that they amounted to a nuisance in law. Still, whenever these machines are so numerous as to render a neighbourhood uncomfortable, the negligence punished in Manchester, will deserve to be punished here also.

So a manufactory of Oil of Vitriol, Aqua Fortis and Spirit of Salt, may be so conducted as to be injurious or not injurious ; of course, it is indictable or otherwise, according to the facts made out. Nor is it necessary to lay the indictment to the injury of a whole district ; it is sufficient, if it be laid to the injury of divers citizens. (Hawkin's Nuisance.)

Generally speaking, it should seem that a person is not entitled to complain, who voluntarily comes into the neighbourhood of a nuisance : but as the health of a great number of people is of more consequence than the emolument of one, the rule seems to be, that every person erecting an establishment out of the precincts of a city, which would be a nuisance if erected within it, is bound to remove, when the buildings have gradually reached and included him : for he is presumed to be aware of this possibility ; and in all cases, the interest of the community is to be preferred to that of an individual. Nor is he entitled to claim that he shall be bought out. Nuisance being incident to his trade or calling, he locates himself at his own peril.

Of Nuisances, as the Objects of Legislative Regulation.

Chaptal and a committee of French chemists, made a long and elaborate report some years ago, on the trades that ought to be prohibited in cities. But it is well not to legislate too much.— Whatever trade shall be *proved* to be a nuisance, by injuring the safety, health, or comfort of the neighbourhood, may be indicted by our law ; and on conviction, the person so exercising it, will be punished. This is enough.

But there are nuisances that loudly call for the interference of the general, or the municipal legislature : viz.

The great increase of tavern licences indiscriminately given.

The cheapness of ardent spirits as a beverage.

The licensing of gambling by means of Lotteries.

Neglect in punishing the swearing, the smoking, and the noise of young boys in the public streets.

The want of a distinct police for the coloured population in our cities.

Neglect in punishing public drunkenness.

The want of a system of common sewers.

The want of cleanliness in the streets.

The continuance of swamps, ponds and large mud holes in, and in the neighbourhood of large cities, in a climate where the thermometer in summer ranges from 76 to 96 of Fahrenheit.

The increase of vagrants and beggars: to which in my own opinion I might well add, the whole system of the Poor Laws, as a nuisance of intolerable magnitude, daily increasing in evil and malignity; and daily producing an increase of vice, drunkenness, idleness, filth, and poverty among the lower classes, at an intolerable expense to the community at large.

Boarding houses for the lower classes with crowded inhabitants on each floor, generating cutaneous and typhoid diseases.

The want of laws to punish careless and desperate drivers and owners of stage coaches.

Firing of guns, &c. in the streets, and near high roads.

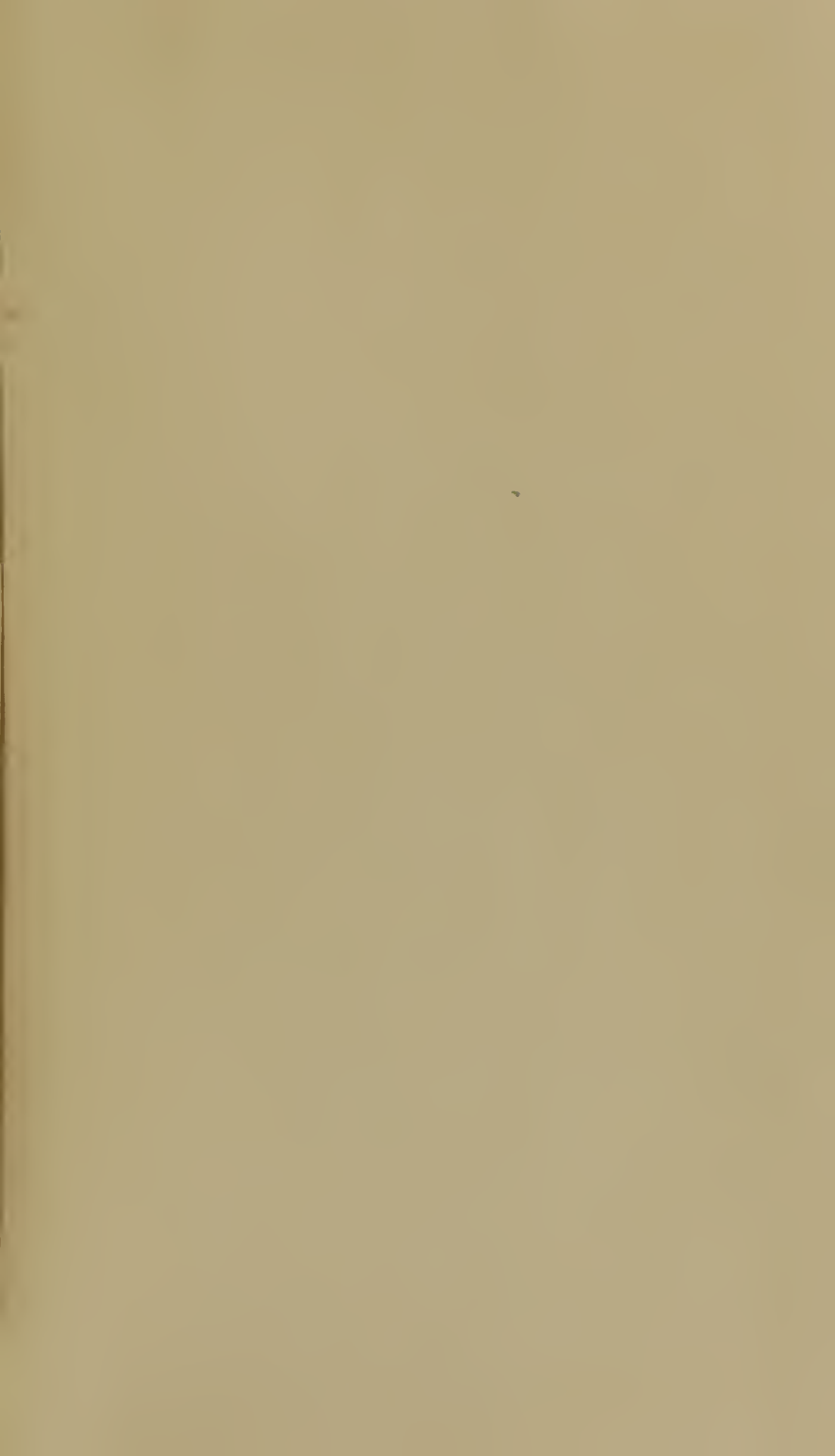
To these may be added, the want of laws regulating the admission of Physicians and Attornies. No person ought to have the management and controul over the lives or properties of his fellow-creatures, till he be at least 24 years of age—nor till after, at least, four years of professional study—nor till after an open examination—nor without evidence of competent knowledge of the dead languages, from which all the medical and legal terms and phrases are derived, and in which so much professional knowledge of both kinds is still locked up. In addition to the usual examinations of physicians, they ought to be examined in medical chemistry, in botany, and in pharmacy: and to the usual examinations of a lawyer, ought to be added the elements of the civil law. The professions would then be filled with gentlemen having the educations, feelings, and manners of gentlemen, and we should complain no more of quacks and pettifoggers.

All these are nuisances of a public nature, that an enlightened legislature alone can remove. Every inhabitant of our cities in America, daily observes, these gross defects in our system of civilization, but observes them in despair as to the prospect of a remedy in his own day.

These cases may suffice as examples of what ought to be done, and still remains to be done by a good system of general police.

T. C.

THE END.



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