In "Resumptions of Survivorship" -

The question of survivorship presents a wide field for injurious speculation to the medical jurisprudence if it must be acknowledged that they are among the most difficult problems which can be proposed for his consideration. The difficulty of deciding such questions is a necessary consequence of the peculiar situations under which they become the subjects of legal inquiry. It is required to determine the possible survivorship of one or two or more individuals who have vanished within a short period of each other, by a visible cause, human or natural accidents, or disease, having been present to observe the exact instant of their destruction. For the medical jurisprudence, the exact form of the question, is a subject of intricate nature cannot fail to press itself on the mind. The question of interest or joint interests in a man's property, as involving the economic property of the estate, or as involving the interest in the capacity of the estate, is a subject of great importance in civil rights. Thus in the case of a mother caring for the child's property, the child being immediately after delivery, if the child survives the mother, becomes heir of the mother in all cases of property derived from the mother. Again: if a father and son perish together by a common...
accident, after his survival, he became seized of the husband's land and tenements. This tribe is entitled to claim dower. Of this doctrine we have an exemplification in the case mentioned as having occurred in Beverly, where a husband died before his wife in the same cause, but the son appearing to struggle ineffectually, was decided to have been the survivor; thus securing to his wife her dower.

So also of a joint tenant (a partner), where the interest of the first deceased passes to the survivor, and to the heir-at-law or next of kin of the deceased; but the heir-at-law or next of kin of the last survivor is entitled. Also between testamentarylegatee and legatee, if the legatee die first, it is a lapse: legacy, it falls into the residuary, but if the legatee survive, his executor or administrator shall take it.

Such are the legal questions, how that may become the subject of dispute in cases yet to come. And the importance of the interest at stake, the great difficulty of uncertainties, and the necessary attendance on such inquiries, in any appearance strange that, whilst our laws have been so explicit in their direction of the descent of property in question of survivorship, they have provided no fixed and definite principle for the determination of the order of survivorship. On which the previous point depends. Of the few cases which have come before the English courts, some have resulted in compromises from the impossibility of settling the order of priority of decease between certain individuals.

In other countries, indeed, it has been attempted to rule out any exactitude, but confining the least to everything.
The earliest legislation with this object appears to have originated with the Romans. This may be explained, I think, by reference to their national character, a peculiar mode of life. Amongst them, a constant engagement in foreign war, also perhaps inevitable in civil strife, it is readily conceivable that cases of violent death, including different members of the same family, must have been of common occurrence; that difficulties connected with the distribution of the property, in respect of expected provision of survivorship arose continually arising; and that the necessity for providing some special course of law in cases of subject was felt on account. The very generally felt, be found accordingly, that the earliest provisions were confined to directing the mode of succession in cases where males of different ages fell together in battle. If two persons to falling, the elder had not yet reached the age of puberty was held to have died first; but if a father and son perished, the latter was retained in his majority. He was considered the survivor.

The application of these provisions, originally devised to meet the exigencies of special cases, was afterwards extended to all cases in which a brother or sister, or one of the nearest of kin, declared that persons of different sexes perished together, the male should be judged to have survived the female. However, quite a arbitrary in many cases such statements, it is evident that, if non in their turn upon consideration of age and sex, about which there could seldom be any dispute, they were easily applicable; a broad certainty have the effect of removing question of contested survivorship within very narrow limits.

These principle appear to have largely influenced the decision of the Continental Courts — such was the case in the curious instance of a family — husband, wife, and daughter — were drowned along...
The law, by gisigation in this subject is that contains in the Code Napoléon. Which for ease for most cases of survivship that may occur. Its general principle agree with those of the Roman Code, in so far as they are based on the same considerations of age and sex; but if I rightly understand them, they are more strictly pronounced in their character — intends only. Here is to meet the conditions which may be turned to or where, when other legal considerations ground the justification are wanting. Regard is then laid first and the circumstances of the case. The medical and the evidence. In default of this, the survivship is to be determined by strength of age and sex. 1. If those who perished together were under 15 years, the eldest shall be presumed the survivor. 2. If they were 15, the younger shall be presumed the survivor. 3. If those were under 15, others above 60, the former shall be presumed the survivor. 4. If those who perished together had completed the age of 15, even under 60, the male shall be presumed the survivor, when ages are equal or the difference does not exceed one year. 5. If they were of the same sex, that presumption shall be admitted which offers the deception in the case of nature; — of course the younger shall be considered to have survived the older.

Such comprehensive provisions appear well adapted for administering equitably in cases of this curious nature. The
...3° Clause has been objected to on physiological grounds. Persons under the age of 15, it is said, may include mere infants, or very young children, who would certainly be the first to perish in most accidents. But it seems to me that these circumstances of the French Code proceed on principles of natural justice rather than of scientific speculation. As young are presumed to survive the old, the younger the child, in accordance with the general order of nature, more clearly is it expressed, sometimes as a preliminary condition. Nor cases, which abound in the law, are often determined by their circumstances and by evidence. Whether this is more or less possible, a course must be had to ascertain such rules, as may certainly respect to find them based on some other foundation than the doctrine of physiology.

No definite enactments like those yet. Code Napoleon exist in our own country. This may probably be attributed to the comparative infrequency with which, in our own, it is before English Court laws, to the difficulties of laying down any positive rule on the subject, or a discretion towards their adoption. It seems reasonable, however, to have some settled principles go over administration which may direct the keeping of such interests as companies, a kind of same time to check the evils of vexation, expensive litigation, and so on. Certain and provident litigations, I think, following observation on it:

The order of nature appears to afford the best general rule; therefore, in the absence of the evidence to the contrary, it is the rule that it can be established that the natural succession has taken place as if no accident had occurred. That the child survived the parent, its nephew the uncle, descendant descendant, etc.

In general, the younger has survived the older.
Having thus briefly indicated the legal relations of this subject, I shall now proceed to consider a more personal concern: the medical jurisprudence.

My present object, then, is to inquire what means there are which may assist to direct a medical inquiry into the formation of an opinion. When called to decide questions of responsibility between individuals, the exact time of whose death is unknown, how are the means on which he has to rely? The degree of aid they are calculated to afford him, must obviously depend in a great measure upon the circumstances of the case itself; but they consist, generally, of inference drawn from collateral information, physiological research, & anatomical observation; & a careful application of such inference to the condition of the accident in question.

In respect to the importance of collateral information in medical and legal enquiries, there can be no doubt. In cases of疑难 disease, for instance, or in concealment or simulation of pregnancy, a knowledge of the previous history of the person suspected is a fact of justice to the inquirer, as very frequently tending to destroy all confidence in the statements of the accused & to explain said fact falsely. Further, which laws may have directed the particular course of action in the same thing, maybe said of many other professions which are likely to engage his attention. So also, in cases of the present kind, our conclusions may be materially influenced by an acquaintance with various circumstances relating to the past life of the person deceased, as the physician, doubtless, to the nature of an obscure disease, is often led to its correct diagnosis by an examination into its mode of onset, & into the previous condition of occupation of his patient. It is not to be expected that medical science can ever enable us to achieve anything more than a probable solution (at the best) of the difficult problem.
I wish to add, but more particularly in certain favourable cases, to the heights of time. Be it known from the relatives, friends, or fellow sufferers of those who have perished, in this way we may learn many important particulars respecting their general habit, constitution, moral, mental, faculties, previous mode of life, at the time of the fatal occurrence, which may serve as a bulwark, so to speak, upon which we may rest one corner of medical reasoning with greater confidence. The circumstances of the accident itself, the relative degree in which the person in question was exposed to its effects, a their condition then last observed, are other points likely to afford valuable indications. We should therefore endeavour to obtain all the information that a case like this admits of in respect to these different particulars.

It may occasionally happen that, in a favourable case, we may be enabled to derive some assistance from anatomical examination, impugning, in a sense, the medical term, an inspection of the external appearance, presented by the body after it has ceased. A the examination of the resuscita of any lesions that may have been sustained, the position of the body when first discovered, the locality and condition (so far as it can be ascertained) of the accident itself, are also points that should be carefully attended to.

Very seldom however, in all probability, will the circumstances of a case thus admit of their being reported in medical circles. In this case mentioned, it seems, at least, that it was one before English ears, and almost all attempts to have arisen by accident by sea. Injury may not arise until a considerable time has elapsed since the occurrence of the fatal event. In other persons, except those in justice may have been involved in it, or else present at the scene. On the other hand, a number of persons may all have seen engines in a common accident, or those who have escaped may not be able to
communicate any satisfactory information into regard to their left fortunate companions. Such cases admit of little more than mere inferences and speculations. So far as physical science is concerned, the position of the medical jurispractor is, in circumstances like these, may be compared to that of a physician called to prescribe for a disease, the symptoms of which are without knowledge given him. Here recourse must be had to what we may term general principles. Our conclusions will be guided by certain physiological considerations respecting such conditions as age, sex, temperament, habits of body, and like causes, and relations degree in which these are likely to be affected by different external influences.

Debating for the present any discussion of these latter topics, I shall now proceed to consider the question of jurisdiction, i.e., between a master and his nearly born infant, and between two or more persons previously by a common accident. According to the law, followed in the "Robins".
Presumption of survivalship in cases when a mother

The newly-born infant are found dead.

Here I believe we are entitled to frame that the presumption would in most cases be in favour of the mother's survivorship. But let us in the first instance suppose that, in the absences of all other evidence, the male parents is presumed for the survivorship, and that in every instance, that conclusion, then the male sex.

You wish he may ground his conclusion in such a case.

Now statistics may afford some assistance in showing the average proportion of deaths from puerperal fever between women and children. Thus,

Eastling (as 5) from some general estimates give probabilities of survivorship under ordinary circumstances. Most of the political text-books contain information upon this subject. I have the following detail from the manual by John Smith. "During the eight years from 1847 to 1854, inclusive, to every 10,000 children born alive in England and Wales, 54 mothers died. This makes a maternal mortality of nearly 1 in every 189 deliveries." With respect to the chances in favour of the infant, on the other hand, it is computed that about 1 child in every 25 is born dead — about 1 in 50 being born of syncopes in labour. This last statement I take from the lecture by Mr. Mathews, Lancaster. After such calculations as these, it is very hard to prove that the probability of survivorship is much more in favor of the mother than of the child.

But it must be remembered that the case — at least by far the possible number of them — may be fairly charged to have occurred under circumstances favourable to the preservation of the mother at the infant. Yet if numerical data beyond experience shows that even in such circumstances it is the life of the latter which is more commonly endangered, we may fairly think conclude that the same rule will generally hold good with respect to labours occurring under conditions the reverse of favourable, since there are more likely to be classed, to affect the child in favour.
in the case of childbed, the mortality is a great deal greater with much risk to the female. One might say in most cases be safely enough allowed to take it in course. I think the very story is accepted without qualification, but doctrine as this. For I think there can be little doubt that a large number of cases of labour were suffered to proceed from first to last without any assistance at all. The mortality would be found to be much at childbed. Perhaps I may in some measure illustrate the question. As it affects the matter, by reference to a class of cases unhappy. Only too frequent occurrence, that delivery, effected clandestinely, or without assistance, are followed by changes of confinement of birth or of an infant in the case. (A notable case of this kind occurred in this town during the last part, if I remember rightly, of the last winter.) Such instances at least, have shown what disadvantageous circumstances delivery may safely take place; and these may also, therefore, suggest to the medical writer his necessity of caution in concluding, when a woman is the nearest born to have an issue dead, that other evidence, that the death of the issue must have been a direct or immediate consequence of the act of parturition.

Again, if we examine the average mortality in ordinary cases of childbirth to be pretty correctly represented by the proportion of 1 death in every 189 deliveries, then it must be remembered that this includes all the various diseases and complications that attend or follow labour. Often, that death principally contributes to swell the amount of mortality in unattractive cases of fever. During the period of eight years already referred to (1847-1854), 25, 868 mothers died in childbirth at the rate of 815.4 perinaries from puerperal fever, more than 1,000 women die annually in England from this cause alone. After puerperal fever, hemorrhage, eclampsia, the operation of uterine fevers, and the uterus, puerperal fever and perinaries, are the principal causes of death.
also, such as small pox of scarlatina, a Reckless inflammation—
cardiac, splenetic, peritoneal, etc., like, are greatly increased in female
by the concomitance of pregnancy or parturition. The same probability is
chiefly produced by outward conditions which are apt to follow a sense of
delivery; e.g. those were excluded from its calculation, I believe that
accidents, involving the death of the mother during the actual process of
labour, or immediately after the birth of the child, would be found to be
comparatively rare occurrence.

The complication that may attend the course or termination of
labour are indeed numerous; such as malpresentation, deformities
of the mother's pelvis, exhaustion, confinement, incontinence, infections
of the uterus, haemorrhage, laceration of the perineum, which
last, however, would scarcely be considered, at least
in the absence of other evidence, a lesion sufficiently grave to
invalidate the mother's legal claim to indemnification. Such
complication may either immediately or ultimately endanger the life of a
female. But it must be admitted that they are also full of peril
to the infant, some often of very early death; experience have
found that risk with the latter to be

Of all the immediate dangers of childbirth, "flooding" is probably the most
frequent and most formidable, now, with the exception of cases of Placenta
Percreta, which are rarer, and very frequent occurrence. The haemorrhage
does not take place until after the expulsion of the child, or it may be, in
the placenta also. I may reasonably conclude, therefore, that if the child
was in an inordinate stage, and flooding occur, if suffered to remain in its
former position. It appears to me that in also a reasonable inference that,
if such a case, the child, or, child was probably praeclad with its
mother. We know how easily - raping its life may be destroyed, and

From this point of view, experience teaches us that the body is
able to recover as to occasion the woman's almost instantaneous
death. A certain interval of time in her favour may be presumed
to exist in most cases. We must not forget however, that women
often very remarkably in their tolerance to haemorrhage after
parturition. Some will suffer fainting after a very moderate loss of blood;
while others bear flooding to an immense extent, and recover
with great rapidity.
In addition to complications of difficult birth, the only complication of birth which is most likely to occur in cases where women are delivered under circumstances calculated to excite strong and profuse internal contractions, the same causes were also probably lead to remove the act of parturition. A topic more than usually exhausting the female. This last consideration appears to have influenced the decision of a case mentioned in the Proceedings of Valentinieri where "the mother in fact lived during the pains of a difficult and protracted labour, when the medical states; having enquired to extreme delicacy of the infant and hand, the exhaustion given permits in the other, concluded that it- -mother must have been infantile. But we must remember that causes which interfere with its safe delivery, both mother and foetus, were also to impair the life of the infant; whereas the former, any injury on an infant is but slight and feeble. The fetal effects of confinement are in these well known. A large proportion of children in such cases are born dead. And certainly in the great number of instances in which labour has been difficult and protracted, the children are stillborn.

Deformities of the pelvis, malpresentations, &c., indicated these are complications of circumstances rare occurrence, attended with a nearly equal amount of danger both to child and mother. Such as those in most cases preclude the possibility of delivery, in the absence of instrumental interference. It is upon a consideration of the ordinary risks of labour that I propose our conclusion should be founded when estimating the general probability of survival.

It must be remembered, again, that the average proportion of children who are born dead, under favourable circumstances, is considerable about 1 in 25. As we have seen, at every 25 live births we know also, that a still larger number of children are born in a condition closely bordering upon death; that they are only preserved by active and timely measures. That like these are sometimes unsurpassable. In easy, a natural delivery, the infant is certain more usually upon our care than the female: whilst in difficult, protracted labour it is necessarily exposed to many a fatal danger during its passage; if the chances yet of being born alive are exceedingly small.
Before, so long attended harmless by the practice of its own stars, and accident interfering with the circulation of blood through the umbilical cord, are the conditions most likely to be productive of peril to the infant while yet in transit. If expelled alive then dangers await it, sudden change to a lower temperature, which in has little power within itself of resisting — exposure of the Dishes from the mother’s person — suffocation produced by entwining with its face y clothes saturated with those exchangers — internal irritation and hemorrhage, following the partial or entire separation of the placenta — are all causes which will probably soon prove fatal to the child, then delivery has been altogether unexpected.

Instinct has taught some y the lower animals, with whom indeed, respiration is a comparatively simple a easy process, at once to practise the measures that are necessary for the preservation of their newly-born offspring. We also know that women have in numerous instances retained sufficient self-preservation to strength to render them capable of taking means to save the child — or to destroy it, as the case may be — but it would certainly be unwise in human to assume, as a general rule, that a woman, delivered herself, or nearly exhausted, urinary exhausted rest she has a body and still possess the power (even if the puerperal knowledge) of reanimating the child; then the health, upon which is safely to expectably depend, such an operation; indeed, would defeat all favorable to the mother as to the child itself.

There have been suggestions, then, that the opinion y medical thereby be given in the absence of all evidence one way or another. A consideration of the cause effects y above, all complications which most frequently attend to. Upon the defense of the medical, begin to form another. The more I think leads him to the conclusion that the presentation of the foetal head must fairly be ascribed to the latter.
In cases of umbilical cord prolapse, it is important to take into consideration the various circumstances derived from personal observation or from other sources. I must now therefore proceed to illustrate some of these cases in detail.

**Personal Observation:** sheds a case about y. i., who perhaps furnish us with some useful hints. Under this head several points deserve attention.

If we have an opportunity of seeing the child after birth, we should note carefully its relative position. Thus, if the child were found lying close to the vulva, if any part of the navel was prominent, or if the face or hand, if the face were immersed in the forelegs, or if it rested on the left elbow, we should infer that it must have passed very hastily. Again, if the body was discovered lying at some distance apart from each other, we might naturally suppose that the woman had left the field when delivery took place, provided it is clear whether a prescutal or obstetrician was in attendance. In the absence of any evidence to the contrary, the presumption is that in her favour or in that of the child.

The position of the umbilical cord, as perinatal, may also happen to the woman at home in the absence of the persons who are present. The sudden birth of a child while she is at home has occurred in many cases. The remarkable instance of the killing is related by Mr. Gideon Bott. The child was found about the time the case, but might be inferred that the child itself was already dead.

The condition of the umbilical cord at seconding is another point that deserves our careful notice. In some instances, the cord is accidentally ruptured, or becomes twisted. This may be due to mismanagement during delivery. A child may also be asphyxiated by being born in the absence of attendants, or developed in the meantime — neglect to deliver the cord by section is a circumstance likely to occur when a woman is delivered alone. If we find that the child has been exposed to danger from any other cause than for its nature, preservation against it would certainly be the first consideration. Is, for instance, we have reason to believe that the delivery has been complicated by mal-presentation, and the child has been born by forceps, we find or feel for instance...
The child was found to be immovably in the position of a full-term pregnancy. The head was down in the hydrocephalic, or "nurse's" position, the fontanels and sutures being large, the appearance of the body leading us to believe this delivery had been a difficult one. The presumption was certain that in favor of the matter. In this case, it was necessary to ascertain this particularly, by a careful inspection of the child's body. A thorough examination should also be made. First, any injuries are visible on the child's person, more especially on the head, shoulders, and arms. No injury has been caused by the falling against some hard or sharp object.

Some information may be derived from 
observation of 
the child's body. As for the female, she may be this way, evidence whether the child has been 
labored with any acute dangerous disease at the time, or whether the child is in a lingering, peptic, nature. In particular, the child's body should also be observed. Still, any injuries are visible on the skin. As may have been caused by the falling against some hard or sharp object.
In a well-known case, involving a question of tenancy to the court, which came before the English courts in the early part of the present century, a slight motion or tremulous motion of the child's lips was decided to constitute a sufficient proof of live birth. Now the occurrence or non-occurrence of such signs of life is a point which, in the absence of any evidence of the presence at the birth, could not be raised; on at least one raised, could not be answered by a medical witness, careful examination might, however, furnish him with important information as to the state of the child after birth. The probability of its survivorship is a consideration here which is not derivable from the condition of the organs of respiration, or the value of the evidence, would be no too far; it belongs more properly to the subject of its infancy. But the state of these organs, their appearance, their position generally, their health, or diseases — the presence of food (or want) in the stomach, the presence or absence of feces in the intestines, are all points likely to afford some useful indications. The time — may also be said — of certain changes, affecting the anatomical and supporting tissues, and their times — are the peculiar points to the fact of state. These changes, however, require a considerable period of time for their production. Indeed, they are not constant. It is impossible, indeed, that we can learn from postmortem examination, or from any other source, except the evidence of an eye witness, what precise number of minutes or even hours after delivery the death of the mother or child took place; but we may be thus enabled to estimate more justly the relative probabilities of survivorship. In this case, we should weigh well the different considerations that have been accounted to exist or otherwise, 2 by a comparison between them our judgment must be guided. Thus, if it be found that the heart's motion had been seen and divided, that it means has been taken to produce the child from the second cord, and that its respiration has been fully established, after it has endured contained food, a large especially if any notable change been observed to have occurred in it.
Contrary to former deals, ut facit pacta. The untitled and —
the presumption of survivability was in those in favour yet Child.
I all the same to y. it can be discovered that the matter had been
laboured under disease y. a serious nature at the time of delivery.
Notwithstanding, it appears that such is termed the "order priorato" test. Generally, with the Child; death in the absence of any such proof, the presumption is most fairly be admitted to be in favour
of the mother.

I do not think that we are likely to obtain much assistance from
such evidence as the comparative degree in which the bodies have
undergone decomposition. Putrefaction is a process liable to be influenced
by such a variety of conditions — by peculiar states of the body itself,
as well as by external circumstances. Has the case scarcely place
any reliance upon it as a means of helping us to determine the
cause of death. It might aid us more if the persons
who perished together were y. heavy equal age & similar habit y. body;
but even in such a case, unless some considerable interval of time
has elapsed between the two deaths, we could not expect to learn
much from evidence of this kind alone. In the present instance, however
the case are too unimportant to permit y. few attaching any near
value to such evidence. No body y. the infant is said to undergo
decomposition more rapidly than that y. an adult. It must also
be remembered that the death y. the fetus may have taken place
before decomposition commenced in utero, some days previous to
delivery.

Personal inspection, however, is very seldom be practicable
in cases y. the present kind: mor. is it likely to aid us much in the
defense. But we may occasionally be assisted to some extent by
information derived from the friends or family y. the deceased —
we may also hear many particulars respecting y. past history &
condition y. the female in question, which are likely to have an
important bearing in the subject of possible survivalship. We
should consider to ascertain, for instance, what y. woman's state
of health was at or about the time of delivery — whether she had
been first pregnancy — & if not so, whether the previous labors had
been easy & natural, or difficult & dangerous. Whether her former

children were healthy, or still-born, I more especially. But it this has been the case, the skull of the child is more frequently in first than in after pregnancies.

The previous occurrence of delivery still, birth, and puerperal fever, would raise a presumption unfavourable in the child. In the case of a male child the presumption would, consider the parities, be strengthened, for we know that male are more still-born than females, in the proportion of 3 to 2. The presumption would also lie in favor of the mother, for I have reason to believe that the child has been prematurely born; and, if the case was to be considered short, a week or two ahead, it is not impossible that the mother might, if she were informed, that her life has been seriously impaired, have taken care to deliver at a period considerably short of the usual time. It is not, however, a natural, or if it is, it is at least not attended with any dangerous complications, might fairly induce us to consider her as a probable survivor. On the other hand, if we were informed that her life has been seriously impaired in former deliveries, as by the occurrence of alarming fevers, at the end of labor or of puerperal fever, she might certainly have strong reasons for hesitating to give any opinion in her favor. To what extent the known existence of disease in the mother's side would influence our conclusions, is a difficult question to answer. Much must depend upon other circumstances. As a general rule, however, I think we may consider that in the case of a lingering wasting disorder, the probability of its continuance is unfavourable to the child; whilst acute disease, as that of the lung, rarely interferes with the viability of the child.
The first child is quite as likely to have been born dead as alive. It is scarcely necessary to observe here, because he lighted on "deus ex machina," I suppose delivery. I have been assisted by nature in the mother's behalf. In unassisted labour, the twin infants themselves will probably be the earliest sufferers. In the absence of all evidence to the contrary, therefore, I should consider the general presumption as still lying in the mother's favour.

Such then appear to me to be the principles by which our judgment should be guided in cases of the present nature.

I hope on no account to consider the remaining part of this subject— the case of two or more persons perishing by a common accident—
Presumptions of survivorship when two or more persons perish together by a common accident

This is the form in which the question of survivorship is most likely to present itself to the medical jurisprudence. Very rarely will a woman be left to nurse alone the anguish of child-birth or death, and I find only one or two cases in record in which an inquiry by survivorship has arisen. But accidents involving the destruction of several persons at once, happen at any time, and give rise to material legal questions in the present kind. In a maritime country like our own, disaster by sea may be considered as peculiarly likely to lead to disputes respecting priority of death. Under these circumstances, indeed, a few such disputes have already come before the English Courts.

Whilst this part of the subject is more likely to engage our attention than that which I have hitherto been considering, it certainly appears to me to be surrounded with still greater difficulties. In the case of a mother who died both before and after delivery, we have some means of determining the probable precedence in the order of death, independently of any other evidence. The first disparity in point of age is enough and the comparative risks on each side which are incurred in delivery between must be taken into account; and I have already endeavored to show how that conclusion they will most naturally lead us. But when two or more persons are destroyed by a common accident, the question of survivorship assumes a more complex character, a scarcely admits to the same extent of physiological illustration. The difficulty attending questions of this kind is illustrated by the fact that in two, out of the three cases referred to above, compromises were recommended from the impossibility of arriving at any satisfactory decision. Any present object, therefore, is to enquire what assistance we can derive from medical science when such a problem is proposed for our solution —
Now, in the first place, there are several circumstances connected
with the general condition or state during their lives of the persons
who have peculiarities which may affect some extent in determining
the probability of their survival. Thus, certain inferences may be drawn
from a consideration of their age, sex, state of health, previous habits,
and like. These inferences, again, must also depend in a great measure
upon the consideration of the nature of the accident itself. It is the degree
in which the persons in question are likely to have been affected by it
which are the means of deciding the difficulty upon which we have usually
have to rely, and the other kind will often be wanting. In the circumstances
like the case is very seldom admitted of an obtaining any assistance
from the examination of the dead bodies - an observation that
must be presented by them.

I shall now consider some of the various conditions peculiar
of the individual during life, which may be supposed to affect
his chance of survival.

Age and sex are points that deserve attention. How far as
we have already seen, the basis of the old Roman code is the
code Hippocrates. How will, respect to age, then can be little doubt
that adults are those in the mature stage of life who are better able
to resist dangers of an ordinary kind than either the very young
or the very old. It is in the adult period of life that the
body attains its greatest power, and the mind its greatest acuity.
The physical instrument having reached its full strength and
vigour, finds promptness and effectiveness to the stimulus of
nutrition; so far as the approach of death can be delayed by
eliminated effort, one may reasonably expect that an adult person will be the last
to yield. In infancy, and in physical and mental powers are at a
minimum; life is swiftly and easily destroyed by slight causes.

Age is the same for men and women - in both there is a certain amount of bodily activity.
A woman will more readily admit; but the organs are endowed;
into a greater degree of instabili
Habitability. The frame of
has not yet acquired the capacity of endurance to of sustained
exertion which is requisite in cases of serious danger. It is not
the usual case in this instance, though children and young persons
cannot be expected to possess that quickness of mind, quickness of
action, which are necessary to enable them to avoid the
danger, or to even hasten on their fate by efforts some how
unwittingly. In old age, on the other hand, we may suppose the
mind still to retain the clearness of perception, the facility of
action, which are the danger; and suggests the means of avoiding
it; but the physical powers are less in abundance, and the instinct
are no longer able to execute the necessary measures with alacrity
and vigour. Upon the whole, then, I think we may premise that
when the circumstances you adduce have been such as to
leave some room for the exercise of a person's power by body,
the latter would probably outlive the very young 2 the very old.
But unless the disparity is great ages in fact, we cannot
trust to considerations of age alone. The various stages of life
help us into the other by such gentle and easy gradations, that we
must be content with simply taking the middle to the two extreme
points of the scale for the purpose of illustrating the probabilities
of immortality. It would be wise, for instance, in the absence of
any other evidence, to speculate on the precedence in order of
death between persons of 20 to 30, or 40 to 50 years of age.
We must remember, also, that its effects of age, confirmed
from this point of view, are liable to be modified by
the circumstances connected with the individual—such as
previous habits, etc. incurable disease, etc. Clearly
that they may require to be differently interpreted according
to the nature of the special cause of death. Indeed and
of course depend upon the amount of information about the
obtain respecting the state of the person when still living;
but these must simply considered. To certain probabilities of
with respect to sex, from which gallantly assumes that
even the persons of different sexes can resist in an equal degree to
a common calamity, precedence in the order of mortality, as in
other things, should be given to the female. In any violent or
protracted struggle against danger, we may certainly conclude that
a woman can probably in the first instance spring to her inferior
strength and power of sustained exertion. The general timidity, more
certainly the want of experience, of familiarity, makes of her sex to justify the assumption that
her chance of survivorship is less than that of the male. And
by virtue of this inferior strength, energy, 
endurance of life, it
now capable of offering effective resistance to a common cause
of destruction. Yet, however true this doctrine may be
theoretically, we cannot accept it. As to infantile infirmity
if we grant that the strong should be considered to survive the
weak, as we phrase it, that says that to suckle fools, a chronic
small beer" forms the whole duty of conception a woman. He the
fashion of survivorship becomes a simple easy one. But how
frequently do we find that the results of accident make all
human calculation. The robust a active fall with the
beast late helpfully escape. This would is the difficulty which
surrounds the whole subject. Again, the most wearing period
time man's life is that during which his characteristic function
is being performed. After the cessation of it:
the end is an inevitable tendency, in many instances a marked tendency,
towards a more masculine constitution character. The
minority to dwell in a practical life, becoming at the same time
much less things pronounced. A theoretical pound. Hence, we
should presume that, under these circumstances, the probability of
survivorship between the two sexes must be somewhat modified.
There is an other point also which becomes to be kept in mind;
the peculiar portion, to signify in the application of the principle
causes of coming observed in the female. This may amount.
It is conceivable that the occurrence of syncope may follow a transient change governed wholly or in an indirect manner by rendering the body unconscious of its sense, perhaps from the action of a peculiarly subjecting mental emotion. Thus, by themselves, may prove specially liable to misconceptions, sensitive, accountable, temporary affection, in some instances indeed, of a sort, label, effects of intense mental emotion. However, interpreting or otherwise, yet in certain accidents, to which, for example, in immersion in water, or exposure to various gases, a cessation of the temporary suspension, or almost entire suspension, of the function of respiration or circulation attending a state of syncope may have a more direct effect in delaying the advent of death. But with respect to drowning, we know that there are instances where there have been recoveries after a period of submersion much longer than which is usually sufficient to destroy life. It must be supposed that in these cases a state of syncope was occasioned at the moment of the accident, from fear, shock, excitation of the brain, or otherwise, so that respiration no longer existed in its full activity. Such a state is more likely to have been in the female than in the male; it is most probably the means of establishing the survivability, in an accident in which both parties were equally exposed to immediate danger from the deprivation of atmospheric air, or the circulation through the brain of blood charged with deleterious matter without wishing to press this speculation too far. It appears, I think, there is some reason to believe that a woman's weakness may occasionally, in such cases, become in reality the truest strength.

In estimating probabilities, however, we must take the circumstances, besides mere age, into account, the habits of body, state of health, previous history of life, a physical and moral quality of the person who has survived, are points that require consideration, as they may lead us to...
The conclusion is that we might be inclined to draw from such facts as a difference in age, or sex, or in both.

The things being equal, it is natural to infer that the have a self-preservation, those who have been in some measure trained to face by the nature of their previous calling, will have an advantage over the more inexperienced, in an accident common to both. They are more likely to retain their presence of mind, to prevent their fate by steadily opposing the cause of destruction. In the other hand, receive fear may itself be to react in the case of a human to more divisible, if the parties in incapable with him, in any case, from making any effective reaction to save himself. The paralyzing effect of terror upon the human muscular system is well known.

A similar sounds that is a probability that the thing a woman will outline the facts a book such is the general doctrine. In the case of General Stairs his daughter, for example, much stress was laid upon the fact that the General, although not, yet as a man of arms and courage, was both more able and more likely to struggle against death than a woman. So also in another case (Taylor v. Deylock) it was concluded that the husband, although labouring under the severe affliction of an asthmatic, might still maintain his manly composure in resisting impending destruction, more particularly as, from his situation in life, he must have often faced death in various shapes. (It bears a more matured point in this last case, however, that the wife was known to be below in the cabin, that the water was rushing in fast, after, although the husband offered large sums of money, no one would venture to attempt her rescue.)

On the last I must remember that bravery in the water does not follow as a necessary consequence of bravery in the field. Bravery a corollary is in the presence of danger depends to a considerable extent upon habit, and a man may display these qualities in an eminent degree in the fields that fell within his own province, unawares, be staggered a little confounded by the sudden occurrence of an accident which he has had no previous experience. It is quite conceivable, for instance, that a soldier, who has little for the risks of the field, might feel an unwonted elevation.
inclination to retreat, if taken up to the business q. a small-pot or fever patient: & in a similar manner we may fairly presume that his medical friends, although professing himself fully 2 without fear & caution, would probably be equally distressed & uncomfortable, if forced by his bad fortune to approach, under full fire, an enemy's battery. & that we should be cautious in attaching any much weight to the consideration of individual hardihood & courage, unless we have some reason to believe that such qualities were not forgotten when most needed. & unless the conditions of the accident itself were such as to leave some scope for their successful exercise - we must also remember that the immediate effects of an injury are not infrequently observed to be of all proportion to its real severity. Thus, one person may suffer little from a lesion which in another will rapidly become the most extreme & alarming destruction of the powers of life, a blow from a mortally fatal. Very trifling injuries may produce much serious effect. This relative insignificance appears better to depend upon some peculiar diacritics in the individual than upon his relative amount of fortitude or timidity.

Of there a second probability that the brave & robust survive the battle & live longer, so we may further suppose that persons who have spent much of their time in the practice of athletic exercises are likely to have an advantage over those who live sedentary habits.

In the case of accidents arising out of shipwreck, or the upsetting of boats, for example, an adept in swimming will certainly be in a much better position to avert surrounding danger. A man who is acquainted with the art. And in so far as active physical exercises tend to inspire a man with confidence in his own powers, to give him a vigor & to make a muscles, & to shunt to conduct to his attainment of the "mens sana in corpore sano", they may be considered to favor his general chance of survival. Much must depend, however, upon the nature of the cause of death.
illustration in a silent country. Mr. Blainville tells us that a large bird flies with impunity upon a rope stretching a crop to the falls of Niagara; yet can we, without prejudice, assume that his death was in any way delayed beyond that of another less fitted individual, if both were equally exposed to an atmosphere consisting of carbonic acid or sulphuric hydrogen?

We may occasionally derive some aid from a knowledge of the habit of body of those who have perished. Thus, in an accident, involving sudden heavy loss of energy, a person with a large and capacious thorax would have great advantage over another whose chest was narrow and contracted — we know that many persons of large thoracic capacity experience little or no difficulty in floating freely upon the surface; whilst others can only succeed in keeping themselves above by considerable exertion. And in similar circumstances a fat person, from his lower specific gravity, will probably stand a better chance than one of a lean habit — there is a curious instance mentioned by Forster of an Italian priest, Paolo Inocicca, whose body weighed so many pounds less than an empty barrel of water that he could float with perfect ease upon its surface. In cases of death by stagnation affray, persons of a corpulent habit are likely to be more slowly destroyed than the lean and spare. We may readily form a knowledge of the phenomenon which occurs in the hypothermia of certain animals — with the exception of the two accident horses, it is probable that a great scope of obesity will in most other cases impair rather than favour a person’s chance of survival; but loss of energy due to a deficiency of movements into the play of respiration. In individuals of a very firm habit, oppression of breathing is occasioned by slight elevation, also by a high temperature. In the great number of cases, therefore, thePremise appears to lie in person of the body —
... and a little - It has generally been unfavorable again to those who are found to have seen one very apoplectic habit of body and are in the large head, short neck, and plethoric frame: we may also consider it probable that, in accidents of such a nature as naturally to influence the joint function of respiration, the ill-formed or contracted chest will be among the earliest sufferers. It will be important, therefore, to inform the physician what information he expects to have; different particulars from the friends or relatives of the deceased -

Another point that requires to be considered is the state of health of those who have furnished them, the general state of health and retired to a sick in the full vigour of health will survive it, likely to be better, amongst the course of which produce extreme prostration, but yet being a natural process, it would arise upon it subject often to a great disadvantage in most calamities, continues fever occupies a foremost place - slight but may be sufficient to cause the death of a person labouring severely under an affection of this kind, for instance mention by Jodor's it would appear that under such circumstances, the eleven days occurred by an accident may quickly induce a fatal result - the death of a military hospital took place through the patient was the suffering from a typhoid fever, who was so overcome with terror, that he died in the shock - the others escaped with

The absence may be said of Violent or extensive inflammatory affections - Surely, is another leading to chronic disease. This is at all severe, is attended with a state of great debility and emaciation, a man therefore is permitted to wither, an activity once life capable of resisting the event, a continued general debility would have a similar effect - In severe cardiac disease, again, or a chronic illness of the

...
Great vessels of the thorax, the agitation is hurried efforts of escape
occasional by the sudden occurrence of an accident an event
likely to accelerate death. We know how essential a state of quietness
of an abstinence from all violent muscular actions are in the
treatment of such affections. When the cause of death is of a
nature to affect chiefly the function of respiration, we may suppose
that the earliest victims will probably be those whose lungs are
already the subjects of disease. In these cases apply the same
principle to their cases.

These being considered, the chances probably lie in favor of
so far as they depend upon different conditions peculiar to the individual.
These are the elements which must probably be brought into consideration.
Some other points, however, remain to be noticed.

In every case, we shall endeavor to furnish, if possible, some
information with respect to the relative degree in which the person
suffered or escaped danger. A knowledge of this may affect us materially.
Thus, suppose stagnation to have been the cause of death,
where it was discovered that the person had access to water
from which another was saved, we shall certainly presume that
the former survived the latter. The effect of even small quantities
of water is prolonging life under such circumstances are well known.
The case of the miner John Brown, mentioned in "The Outlines"
affords an illustration of this. If the fatal results have proceeded
from exposure to cold, again, the relative amount of clothing of
the parties, and the opportunity which one or other may have
had of procuring food or cordial, will become an important
question. As to the effect of spirits, however, in enabling an
individual to endure for some time a great degree of cold, we
must remember that everything depends upon his own discretion
in using them. Taken at intervals in small quantities, they may
sustain the process of life; but an immoderate and frequent draught
like only tend to accelerate death. Ceteris paribus, however, be
should admit the presumption to be in favour of a person who was the better sheltered, or who had access to some place of shelter which the other did not enjoy. In the case of Taylor's Deposition to which I have already alluded, it is difficult to resist the conclusion that the woman was the first to perish when we consider that she was burned below at a time when the vessel was crossing filling with water, whilst her husband was known to have been living a life of drink. Although it is not possible conclusively to assert it, in respect of any given accident, that those who are most exposed to its immediate danger are the first persons destroyed, yet in a question of mere probability we are entitled to assume that such would be the case, if the assumption is not opposed to evidence of a more satisfactory and trustworthy kind. It is important, therefore, that we should know something of the order in which the different persons were exposed to the common cause of destruction, in order to escape the error of assigning the position of the bodies when first discovered to its known sequence of disaster. Thus, when persons have been destroyed in a house or chamber by carbonic acid or other noxious gases, some of the bodies may be found in bed; others lying at the door or upon the staircase: we may conclude that the latter were the survivors; a generally, the presumption will lie in favour of those whose bodies are found lying near any aperture or plan which may have admitted atmospheric air. I remember to have seen an account of the different actions of a situation in which the bodies of the unfortunate inhabitants of Pompeii were discovered, as the destruction of that famed city was being finished; some lying in the interior of houses, some in the street; others close the gate, evidently arrested in the very act of making their escape. If it is fair to speculate on the fate of persons who were overwhelmed so many centuries ago, these last may be presumed to have survived the others.

These in the last place to consider certain indications which may be afforded by the state of the dead bodies themselves.
When a short interval only has elapsed between the death of those in question and the discovery of their bodies, the comparative loss of temperature, a degree of post-mortem rigidity, may lead us to some extent in error in the case of the former. If the corpse of the person have been allowed to retain a certain amount of warmth, a flexibleness might have existed was quite cold and stiff, with a difference would seem to indicate the priority of death in the latter case. The relative length of the lividity discolouration, which is so commonly observed in the case of the former on separating parts of the surface, do which it is supposed has been applied, may also afford some assistance. Although the difference in these respects is considerable, however, we cannot place much reliance upon it. And it must be remembered that evidence of this kind is often uncertain and defective. That this value depends upon a variety of other circumstances - age, habit of body, and the cause of death, are some of the considerations which influence the supposition of cadavers, viz, rigidity and coldness. Thus it is found that the bones of the person lose their warmth and flexibility sooner than those of the young. In certain forms of death, the cause, such as apoplexy, and affections, the occurrence of these changes is delayed; at the same time it is said to the time of death by some. In other cases of sudden death, generally, the other hand when chronic disease has been the cause of death, the cause of death itself is not always established. In order to make evidence of this kind really valuable, it is necessary to take into account the length of the interval between the death of the one and that of the other. The mode of death should also be the same in both cases. It is obvious, however, that a common calamity may affect differently different individuals. Of a number of persons, some, for example, may die by a fall from a building, some from direct injuries, others from suffocation. And, supposing these things to be equal, we may certainly conclude that the last will take precedence in the cause of death, since they last will take precedence in the cause of death, by no means...
recklessly bring life into instant danger. Separation again on the instant will inevitably prove fatal in a very few minutes. Yet, if these persons be discovered some hours after death, such indication as I have been considering were the only evidence that could be obtained, we might easily be led into error. Let us suppose, for example, that two bodies are found—the one, that of a child, cold and rigid,—the other, that of an old person, still retaining some degree of warmth and flexibility. In the absence of any other information we should probably assume that the death of the latter took place subsequently to that of the former. Such an assumption might be perfectly incorrect, however, if the child died by asphyxia, and the latter had been destroyed by apoplexy. In taking these indications as a guide, therefore, we must, at the same time, carefully consider the nature of the accident itself, and the manner in which the different persons in question are likely to have been immediately affected by it.

This leads me to notice evidence of asphyxia itself, which may sometimes have to be taken into account. A which is derived from the observation of various lesions, external or internal, of a nature likely to prove rapidly fatal. In persons who are found to have sustained such injuries may therefore be considered to have been (first in the side of death) in the neck region we may place wounds of the viscera, such as lacerations of the liver, lungs, stomach, spleen, intestines, bladder, etc. These, although equally mortal, are less likely to terminate life immediately. A common period is frequently observed to intervene between the infliction of such injuries and their fatal termination. Wounds of contusion might, however, merely be fractures, dislocations, etc., can scarcely affect the general probability of survival. If regard be had solely to the comparative severity of the lesion received by the different parties, it is evident, however, that injuries which in themselves involve little or no danger to life, may speedily bring about a fatal result.
In an indirect way — in the case of shipwreck, for instance, a shipwreck thrown on the head, inflicted by rocks or floating objects, may render a foal swimmer quite incapable of making any exertion, & thus destroy his chance of survival. - Lesion of the central portion of the spinal column a cord, or more especially of the part adjoining the brain, may certainly be ranked in the first class; but we know that life, even if ultimately destroyed, may continue for a considerable period after the infliction of injuries which affect only the lower reaches of the cord - wounds of the head, if severe, may also render the presumption unfavorable to the person who has received them. The delicacy and importance of the organs in their immediate neighborhood, the probability of its having been likewise implicated, appear to justify such a conclusion. Yet it is an instance of a nature so prone immediately or very quickly fatal. This consideration, amongst others, seems to have influenced Zacchia in the decision of a question of survival arising out of the destruction of a number of persons by the fall of a building. Amongst them were a father and this son. The body of the former was uninjured, but on the head of the latter there was a serious wound. Zacchia, however, concluded that the latter was the survivor; considering that the wound was not necessarily mortal, nor of a nature to destroy life immediately; whilst the suffocation was so much more urgent a cause of death. But the father, from his Valentinianian state at advanced age, would first be destroyed by it.

Supporting this, he states the persons in question have been simultaneously affected by the accident; after our opinion has been formed upon the present kind alone, a comparison of the different lesions must decide the probable order of death. These may be presumed to have first perished whose brains present the most serious and dangerous injuries. - This appears to be a fair conclusion. Yet we are exposed here, to two sources of fallacy. On the one hand, the results of an injury are sometimes out of all proportion to its real severity - on the other, lesions of the spinal column may not terminate fatally for a considerable period. A wound of the
heart, for example, may naturally be expected to produce almost immediate death. Yet one or two remarkable instances were mentioned in the present course of lectures on the care of the living where wounds of that organ were not followed by death until after an interval of several hours – such facts as these have an important bearing on the medical question of another kind. After these bare facts, we may be desired in estimating the probability of effect by the severity of a wound. We cannot determine a simple question of probability by a reference to exceptional cases, however: it appears to be as certain as death may have been caused or accelerated by the injuries themselves, we have a right to suppose that the persons most seriously injured were also the first persons to expire.

In cases, again, where a considerable period of time has elapsed between the occurrence of the accident and the discovery of the dead bodies, it is probable that some indications may be afforded by the comparative degree in which they have undergone decomposition. Thus, suppose two corpses to be found – one far advanced in putrefaction, and another presenting only slight signs of the commencement of decay - less than, in the advanced stage of the evidence, have fair grounds for taking the extent of the disease and the post-mortem changes to represent the probable occurrence in the order of mortality. The difference in these respects is great, and the strongly marks an unmistakable admission of the former terms of opinion. Here is little room for refinement in such cases of the present kind. And it must be remembered that evidence of this sort is, as the best, uncertain and deceptive. The process of putrefaction is affected by the same circumstances connected with the individual as those to which I have already alluded when considering the indications afforded by relative degrees of cadaverous colour, rigidity, a variety of external evidences, such as heat, cold, moisture, etc., also influence the rapidity of its commencement and its rate of progress. With respect to these last, however, we may assume that the persons destroyed by a
common accidents have all been pretty equally constituents. Still in some, or, the may place much definitely upon the likeness of satisfaction. These who lived lines present no marked difference in point of age. A general habit of it; 2 last, 1 an interval of some days, or certainly of some hours at least, those elapse between the different deaths. But in all ordinary cases we must suppose that the persons in question died within a very short time of each other; 2 that the degree of preparation like probably be too nearly equal in all the bodies to permit your deriving much assistance from this source alone.

In addition to the age, sex, and other peculiar conditions of the persons who have perished together, the nature of the cause of death itself is a point which must always be taken into careful consideration. The little time left, however, will not allow me to say more than a few words on this head.

When exposure to cold has been the cause of death, we may presume that, as regards age, infants and old persons were the earliest victims. In both these the power of resisting heat is very feeble; after sensibility to refrigeration, temperature first. This fact is generally demonstrated in the cause of any unusually severe winter. Persons of sedentary habits, those whose physical strength a mental energy have been exhausted by long continued violent exercise, are more likely to sink before it than the active and robust; 2 we supposed to be more subject to colds, by reason of their greater delicacy of constitution. A more inactivity and easy mode of life, will be less able, as a general rule, to endure a struggle against the cause of danger than men. Theoretically, we may imagine both persons of strong constitution are likely, by continuing in motion, directing the inclination to sleep, to survive those of an opposite character. But this can hardly be considered a point of much importance. In cold only refer to it. Case of Dr. Jackson, for a proof that perfect knowledge of the effects of avoiding sleep a continuing in motion may consist with an utter incapacity of doing either one or the other. But the frequently adverse a great difference in the power of enduring severe cold. Weak persons of the same sex, a by nearly equal age. This seems to refer as a difference in temperament; the femininity will usually think be found to have an advantage over the nervous in this respect.
we should reason, therefore, to learn whether or not the persons in question were really affected by cold during their lifetime. It is, in fact, also the opinion of many that the relative amount of clothing, a shelter, or some other place of shelter, from which the body was excluded.

In accidents arising out of exposure to excessive heat it appears that the young are more liable to sustain the heat than the adult. Thus it has been observed in the case of caravans crossing the desert or tropical countries, that strong and active persons have frequently sunk under their sufferings, while children have escaped. And for an instance mentioned by Dr. Buxton it would appear that another common cause of death, from the above circumstances, is also less dangerous to the young than to the adult. The case is the one related by Burchardt of a caravan coming in want of water in the Libyan desert. "The youngest slaves bore the thirst better than the rest; while the grown-up boys are dead, the children reached Egypt in safety." Here, then, we must depart from the general presumption in favour of superior age - strength, the hotly turgid frame, a metaphysical tendency may also be expected to sink those in intense heat more quickly than those of an opposite habit of body.

When starvation has been the cause of death, we should seek first to ascertain whether any of the party had temporary access to food, or even to water alone, which the rest did not enjoy. Still, an advantage was certainly afforded strong reasons for the presumption of their insufficiency. But supposing all to have been equally situated in this respect, the presumption may be considered as in favour of inferior age. There can be little doubt that infants, very young children, are the first to sink, generally, the young before the adult, a less adult, probably, before the elderly. It is while the body is still undergoing rapid growth and development that the deprivation of food is most keenly felt. In advanced age, on the other hand, there is a less element left for support life. The probable cause of death, in cases of starvation, as regards age, has been illustrated by Dante in this description of the fate of Ugolino and his family - with respect to habit of body, we may expect that the
fat a inactive one generally be was a whole spine 2 an gap 1
regard 3 age. again, I think it in favour "of""s by the
female 11 the male. adults usually consume less food, a appear
be able to support prolonged fasting than men. he must remain in also
his person, for he has a supports life on surprisingly small
quantities of nourishment, 2 after a certain diseases state, the body
deprivation of food may be looked for considerable periods —

When death has been occasioned by exposure to some highly deleterious
gas such as carbonyl acid or hydrogen, it will usually be
possible, I think, to decide the question of its originship upon any more
consideration; as the relative strength or weakness, etc. The
operation of such agents is in general not so rapidly fatal, that, suffering
the different persons to have been equally subjected to it, they would
in all probability expire very nearly at the same time. In the
absence of other evidence, therefore, I do not see how we could fairly
assign the presumption in favour of one more than of another. I take
the following passage, however, from Dr. Beck's work: "A late writer
in the "Annals of Hygiene" affirms that from numerous observations made
for a long period on persons dead from asphyxia (which enter shows
that he principally means carbonyl acid gas by this) the female
adults survive longer than the male adults. The strongest instances
are first — their death has been occasioned by a deficiency of oxygen in
the atmospheric air, or may happen by a number of persons being
accidentally confined within a closed chamber or cage, etc. In this
a reasonable presumption to that these whose respiratory functions were
most active and vigorous, would be the earliest sufferers. In this case,
healthy a strong adults could probably fall before very young or very old
persons, adult male generally, before the female. But the points most
important to remember, in an accident arising out of exposure to
noxious inhalations, are the relative situation of the different individuals
with regard to the source of danger, the indications of any attempt
to escape from it which may have been practised. Dr. Taylor, in speaking
of the effects of carbonyl acid, mentions a curious case related by
David as having occurred at Herefords. Several persons of a family
were poisoned in consequence of their having slept on the ground, some
be the deserted in consequence of their having slept on the ground, some

accident by sea may give rise to questions of survivorship. Such questions are generally difficult to settle. In cases of this kind, we cannot expect to derive any assistance from an inspection of the place where the accident occurred, or from an examination of the bodies, if these have perished. The information obtainable from their companions in peril, or from other sources, may afford little help. In the case of the servicemen, for example, all hands on board the vessel were lost, and there was no other evidence to found upon than the register and the signatures of age, sex, profession, residence, military, naval, or civil service, etc. As to the right naturally anticipate, under such circumstances, the argument in this case was equally uncertain and unconvincing, that the contest terminated in a compromise. In the case of Taylor v. Spooner, however, there were some grounds for the presumption of survivorship. This much was proved, at least, that at a time when nothing was known about the woman, except that she was a person of great breeding, the husband was still living; no immaterial consideration in questions of such a difficult nature. In such a case, we must, to some extent, resort to the relative similarity and degree in which the different individuals were exposed to danger. If great danger in point of age existed between them, we may suppose that the very young and the very old, from their peculiar and helpless condition, were more likely to fall early victims than the adult and active. It seems in such cases also, to know whether any of them were drowned...
lashed to part of the vessel before the bile up to stomach. It was then
chilling to force a fragment of it back. In death of this in every
base case, consider the presence of mind give the person who maintains the
many advantages; but the existence of such facilities at the moment is
a point to be proved without analysis. He cannot safely speculate
as to the exact condition of any man's moral facility when involved in
ominous peril, but if, indeed, in the period of a trial to which he has
been long habituated - the any account than dwelling is the immediate
danger, however, a food knowledge of poison might be a direct source;
I rely be satisfied, in the absence of any reasons to the contrary, as
affording just grounds for the presumption of its possible relationship -

In a case referred to Escardia, the question lay between two persons,
husband & wife. She has been destroyed by poison. They had
partaken of some poisonous mushrooms, 2 hours during their
absence yet, domestic who had been sent to procure a dinner.
Escardia gave it as his opinion, that the husband survived the wife.
The former, though six years of age, was robust; a healthy, child eaten
few of the mushrooms. The latter, in the other hand, although only 40
years of age, was asthmatic & subject to affection of the stomach. She
had eaten largely of the mushrooms, she added to those the indigestible
food. A poison, therefore, which acts violently on the organs respira-
tory would most destroy the already diseased in less part.

This poison however, like many others, appears to act in a twofold
manner; as a irritant to the alimentary canal, & as a narcotic - but
soon becomes instantly in different divisions - he can fiercely attack
much importance to the supposed connection between the existence of an
asthma & the operation of the poison. The relative quantity taken of
the condition of the stomach. In health, appear to offer the best grounds
for the presumption - In most cases of poisoning, the young may be
expected to succumb before the adult, supposing that other things are equal.
But if nearly equal quantities of poison have been taken at nearly the
same moment, it will be very difficult to determine the probable
order of death between persons in whom no such difference in age
lightning existed. The ordinary effects of any deleterious agent an
lieable sources. It is influenced in a remarkable degree by individual peculiarities. Thus, we sometimes observe that even medicines once
proved fatal produce violent symptoms; this, for example, is true of certain articles of food. The intoxication successively felt by
the action of the poison in just a matter of days as any person with just as
little assuming him to have been first destroyed. The liability
to serious disease may also become a serious question. In
some respects this is the system. Here is a case where tolerance to
certain poisons, in others, the reverse.

Such an issue of modes in which questions as a
fundamental may originate. Others are easily conceivable,
but here I must stop.

As his subject has ten score - a legal as well as a medical
one - the learned time right shortly to notice the former a little.
Let me have more room so consider as fully as time admits
knowledge & experience would allow. It is perhaps difficult to
write altogether impartially upon a subject which leaves so much
room for speculation. Until some future magazine shall
arise & be permitted to sacrifice men, women, & children - as
his great predecessor sacrificed dogs, cats, 
& rabbits, in his
series of experiments. Specially devoted to the illustration of
justice & suffering. They must, I think, continue to
retain a very problematical character - so far at least, as
medical science is concerned. It is but an act of Feodow justice
that one is called on to perform. Of two persons, long since
dead, we do not give one to prior extinction - occasionally, indeed,
the question may assume a form well capable of physiological
solution: but it may more frequently expect to find it
involved in almost conflict. Hence, if a question of the latter
kind is (as definitively decided the way or another, it is decision
The remarks have extended, I am afraid, to a somewhat
unreasonable length. But it is true, as Shakespeare says,
that you can have easier access than to desire. The subject
is one with which a more topic can hardly be expected to do anything
justice; it is because of the many facts and implications
connected with it, I can only echo with Shakespeare, apologetically,
"Had my powers, I'd not my will, express."