Joint Rules for New Spellings, recommended for general use by the Philological Associations of Great Britain and America.

c.—Drop silent c when etymologically useless, as in live, vineyard, single, engine, stone, eaten, etc.

cn.—Drop n from cn having the sound of e, as in feather, leather, feather, etc.

Drop e from cn having the sound of a, as in heart, etc.

can.—For beauty use the old beauty.

c0.—Drop o from, co having the sound of e, as in prejudice, prejudice, etc.

—Drop a from having the sound of e, as in feather, feather, etc.

Drop e from ca having the sound of a, as in heart, etc.

can.—For beauty use the old beauty.

c0.—Drop o from, co having the sound of e, as in prejudice, prejudice, etc.

i.—Drop i of parliament. [Also friend and derivatives.]

i.—For a having the sound of u in but write u in above (abov), some (sum), tongue (tung), etc. For women write women.

ou.—Drop a from ou having the sound of u, as in journal, nourish, trouble, rough, tough (taf), tough (taf), and the like.

n.—Drop silent n after y before a, as in guard, guess, guilt, etc.

nc.—Drop final e in catalogue, pedagogue,league, Havana, etc.

y.—Spell rhyme right.

——Doubt consonants may be simplified.

Final b, d, g, p, r, f, z, as in cbb, add, ceg, in, pour, but, build, dull, buzz, etc. (not all, all) etc., nor pull, pull, etc. Medial before another consonant, as battle, rass, written (writ), etc. Initial unaccented prefixes, and other unaccented syllables, as in abbreviate, accuse, affair, etc., curvelling, traveller, usually, etc.

b.—Drop silent h in bomb, crumb, debt, doubt, dumb, etc.

c.—Change c back to s in cinder, fierce, hence, once, pause, scarce, siver, source, thence, fierce, thence.

ch.—Drop the k of ch in chamomile, cholera, school, stomach, etc.

Change to k in ake (ake), anchor (anker).

d.—Change land ed final to t when so pronounced, as in crossed (crosst), looked (lookt), etc., unless the e affects the preceding sound, as in chased, chased, placed.

g.—Drop g in feign, foreign, sovereign.

gh.—Drop k in aubk, barth, ghost. Drop gh in haughty, though (thoa), through (throu). Change gh to f where it has that sound, as in cough, etc.

l.—Drop t in could. p.—Drop p in receipt.

s.—Change s to z in distinctive words, as in abuse verb, house verb, rise verb, etc. Drop s in wise, demise, island.

sc.—Drop e in scot, scythe (silbe).

tch.—Drop t as in catch, pitch, witch, etc.

w.—Drop w in whole.

ph.—Write f for ph, as in philosophy, sphere, etc.

Words spelt in accordance with any of the Joint Rules may now be considered as orthographically correct on the very best authority. Information and parallels on Spelling Reform may be obtained at the SPELLING REFORM ROOMS,

24 CLINTON PLACE, NEW YORK.
FRUITS OF PHILOSOPHY.

A TREATISE

ON THE

POPULATION QUESTION.

BY

CHARLES BRADLAUGH

AND

MRS. ANNE BESANT.
PUBLISHERS' PREFACE.

The pamphlet which we now present to the public is one which has been lately prosecuted under Lord Campbell's Act, and which we republish in order to test the right of publication. It was originally written by Charles Knowlton, M. D., whose degree entitles him to be heard with respect on a medical question. It was first published in England, about forty years ago, by James Watson, the gallant Radical who came to London and took up Richard Carlile's work when Carlile was in jail. He sold it unchallenged for many years, approved it, and recommended it. It was printed and published by Messrs. Holyoake and Co., and found its place, with other works of a similar character, in their "Freethought Directory" of 1853, and was thus identified with Freethought literature at the then leading Freethought depot. Mr. Austin Holyoake, working in conjunction with Mr. Bradlaugh at the National Reformer office, Johnson's Court, printed and published it in his turn, and this well known Freethought advocate, in his "Large or Small Families," selected this pamphlet together with R. D. Owen's "Moral Physiology" and the "Elements of Social Science," for special recommendation. Mr. Charles Watts, succeeding to Mr. Austin Holyoake's business, continued the sale, and when Mr. Watson died in 1875, he bought the plates of the work (with others) from Mrs. Watson, and continued to advertise and to sell it until December 28, 1876. For the last forty years the book has thus been identified with Freethought, advertised by leading Freethinkers, published under the sanction of their names, and sold in the headquarters of Freethought literature. If during this long period the party has thus—without one word of protest circulated an indecent work, the less we talk about Freethought morality the better; the work has been largely sold, and if leading Freethinkers have sold it—profiting by the sale—is mere carelessness, few words could be strong enough to brand the indifference which thus scattered obscenity broadcast over the land. The pamphlet has been withdrawn from circulation in consequence of the prosecution instituted against Mr. Charles Watts, but the question of its legality or illegality has not been tried; a plea of "Guilty" was put in by the publisher, and the book, therefore, was not examined, nor was any judgment passed upon it; no jury registered a verdict, and the judge stated that he had not read the work.

We republish this pamphlet, honestly believing that on all questions affecting the happiness of the people, whether they be theological, political, or social, fullest right of free discussion ought to be maintained at all hazards. We do not personally indorse all that Dr. Knowlton says: his "Philosophical Proem" seems to us full of philosophical mistakes, and—as we are neither of us doctors—we are not prepared to indorse his medical views; but since progress can only be made through discussion, and no discussion is possible where differing opinions are suppressed, we claim the right to publish all opinions so that the public, enabled to see all sides of a question, may have the materials for forming sound judgment.

The alterations made are very slight; the book was badly printed, and errors of spelling and few clumsy grammatical expressions have been corrected; the subtitle has been changed, and in one case four lines have been omitted, because they are repeated word for word further on. We have, however, made some additions to the pamphlet, which are in all cases kept distinct from the original text. Physiology has made great strides during the past forty years, and not considering it right to circulate erroneous physiology, we submitted the pamphlet to a doctor in whose accurate knowledge we have the fullest confidence, and who is widely known in all parts of the world as the author of the "Elements of Social Science"; the notes signed "G. R." are written by this gentleman. References to other words are given in foot-notes for the assistance of the reader, if he desires to study up the subject further.

Old Radicals will remember that Richard Carlile published a work entitled "Every Women's Book," which deals with the same subject and advocates the same object as Dr. Knowlton's pamphlet. R. D. Owen objected to the "style and tone" of Carlile's "Every Women's Book," as not being in "good taste" and he wrote his "Moral Physiology" to do in America what Carlile's work was intended to do in England. This work of Carlile's was stigmatized as "indecent" and "immoral," because it advocated, as does Dr. Knowlton's, the use of preventive checks to population. In striving to carry on Carlile's work, we cannot expect to escape Carlile's reproach; but, whether applauded or condemned, we mean to carry it on, socially as well as politically and theologically.

We believe, with the Rev. Mr. Malthus, that population has a tendency to increase faster than the means of existence, and that some checks must therefore exercise control over population. The checks now exercised are semi-starvation and preventable disease; the enormous mortality among the infants of the poor is one of the checks which now keep down the population. The checks that ought to control population are scientific, and it is these which we
advocate. We think it more moral to prevent
the conception of children than, after they are
born, to murder them by want of food, air, and
clothing. We advocate scientific checks to popu-
lization, because, so long as poor men have large
families, pauperism is a necessity, and from
pauperism grow crime and disease. The wages
which would support the parents and two or
three children in comfort and decency is utterly
insufficient to maintain a family of twelve or
fourteen, and we consider it a crime to bring into
the world human beings doomed to misery or to
premature death. It is not only the hard-work-
ing classes which are concerned in this question.
The poor preacher, the struggling man of busi-
ness, the young professional man, are often made
wretched for life by their inordinately large
families, and their years are passed in one long
battle to live; meanwhile the woman's health is
sacrificed and her life embittered from the same
cause. To all of these, we point the way of rel-
ief and of happiness; for the sake of these we
publish what others fear to issue; and we do not
confident that if we fail the first time, we shall
succeed at last, and that the English public will
not permit the authorities to stifle a discussion of
the most important social question which can in-
fluence a nation's welfare.

CHARLES BRADLAUGH.

ANNIE BESANT.

PREFACE TO SECOND NEW EDITION.

We were not aware, when we published the
first edition, that the editions published by
James Watson, and professing to be reprinted
by Holyoake & Co., Austen & Co., F. Farrar, J.
Brooks, and Charles Watts, contained any vari-
ations. Those variations are all of the most unimpor-
tant character, but as it was the edition
issued by Mr. Watson, which was prosecuted
and as on careful reading we find there are
some 'slight' differences, the present edition is
reprinted from his, with the exception of errors
in printing and grammar.

CHARLES BRADLAUGH.

ANNIE BESANT.

PREFACE.

BY ONE OF THE FORMER PUBLISHERS

It is a notorious fact that the families of the
married often increase beyond a regard for the
young beings coming into existence, or the hap-
piness of those who gave them birth, would
dictate; and philanthropists of first-rate moral
character, in different parts of the world, have
for years been endeavoring to obtain and disse-
minate a knowledge of means whereby men and wo-
men may refrain at will from becoming parents,
without even a partial sacrifice of the pleasure
which attends the gratifications of the productive
instinct. But no satisfactory means of fulfilling
this object was discovered until the subject re-
ceived the attention of a physician, who had
devoted years to the investigation of the most
recondite phenomena of the human system as
well as to chemistry. The idea occurred to him
of destroying the fecundating property of the
sperm by chemical agents, and upon this princi-
ple he devised "checks," which reason alone
would convince us must be effectual, and which
have been proved to be so by actual experience.

This work, besides conveying a knowledge of
these and other checks, treats of Generations,
Sterility, Impotency, etc., etc. It is written in
a plain yet chaste style. The great utility of
such a work as this, especially to the poor, is
ample apology, if apology be needed, for its
publication.
Consciousness is not a "principle" or substance of any kind, nor is it, strictly speaking, a property of any substance or being. It is a peculiar action of the nervous system, and the system is said to be sensible, or to possess the property of sensibility, because those sentient actions which constitute our different consciousnesses may be excited in it. The nervous system includes not only the brain and spinal marrow but numerous soft white cords, called nerves, which extend from the brain and spinal marrow to every part of the body in which a sensation can be excited.

A sensation is a sentient action of a nerve and the brain: a thought or idea (both the same thing) is a sentient action of the brain alone. A sensation or a thought is consciousness, and there is no consciousness but that which consists either in a sensation or a thought.

Agreeable consciousness constitutes what we call happiness, and disagreeable consciousness constitutes misery. As sensations are a higher degree of consciousness than mere thought, it follows that agreeable sensations constitute a more exquisite happiness than agreeable thoughts. That portion of happiness which consists in agreeable sensations is commonly called pleasure. No thoughts are agreeable except those which were originally excited by or have been associated with agreeable sensations. Hence if a person never had experienced any agreeable sensations, he could have no agreeable thoughts, and would of course be an entire stranger to happiness.

There are five species of sensation,—seeing, hearing, smelling, tasting, and feeling. There are many varieties of feeling—as the feelings of hunger, thirst, cold, sadness, etc. Many of these feelings are excited by agents that act upon the exterior of the body, such as solid substances of every kind, heat, and various chemical irritants. These latter feelings are called passions. Those passions which owe their existence chiefly to the state of the brain, or to causes acting directly upon the brain, are called the moral passion. They are grief, anger, love, etc. They consist of sentiment actions, which commence in the brain, and extend to the nerves in the region of the stomach, heart, etc. But when the cause of the internal feeling or passion is seated in some organ remote from the brain, as in the stomach, genital organs, etc., the sentient action which constitutes the passion commences in the nerves of such organ and extends to the brain, and the passion is called an appetite, instinct, or desire. Some of these passions are natural, as hunger, thirst, the reproductive instinct, the desire to urinate, etc. Others are gradually acquired by habit. A hankering for stimulants, as spirits, opium, and tobacco, is one of these.

Such is the nature of things that our most vivid and agreeable sensations cannot be excited under all circumstances, nor beyond a certain extent under any circumstance, without giving rise in one way or another to an amount of disagreeable consciousness or misery, exceeding the amount of agreeable consciousness which attends such ill-timed or excessive gratification. To excite agreeable sensations to a degree not exceeding this certain extent is temperance; to excite them beyond this extent is intemperance; and to excite them at all in modification or abstinence. This certain extent varies with different individuals, according to their several circumstances, so that what would be temperance in one person may be intemperance in another.

To be free from disagreeable consciousness is to be in a state which, compared with a state of misery, is a happy state: yet absolute happiness does not exist in the absence of misery; if it do, rocks are happy. It consists, as aforesaid, in agreeable consciousnesses. That which enables a person to excite or maintain agreeable consciousness is not happiness: but the idea of having such in one's possession is agreeable, and of course is a portion of happiness. Health and wealth go far in enabling a person to excite and maintain agreeable consciousness.

That which gives rise to agreeable consciousness is good, and we desire it. If we use it temperately, such use is had, but the thing itself is still good. Those acts (and intentions are acts of that part of man which intends) of human beings which tend to the promotion of happiness are good; but they are also called virtuous, to distinguish them from other things of the same tendency. There is nothing for the word virtue to signify but virtuous actions. Sin signifies nothing but sinful actions, and sinful, wicked, vicious, or bad actions are those which are productive of more misery than happiness.

When an individual gratifies any of his instincts in a temperate degree, he adds an item to the sum total of human happiness, and causes the amount of human happiness to exceed the amount of misery further than if he had not enjoyed himself; therefore it is virtuous, or, to say the least, it is not vicious or sinful for him to do so. But we must ever be remembered that this temperate degree depends on circumstances; that one person's health, pecuniary circumstances, or social relation may be such that it would cause more misery than happiness for him to do an act which being done by a person under different circumstances would cause more happiness than misery. Therefore it would be
right for the latter to perform such act, but not
for the former.

Again: owing to his ignorance, a man may
not be able to gratify a desire without causing
misery (wherefore it would be wrong for him to
do it), but with knowledge of means to prevent
this misery, he may gratify it that more pleasure
than pain will be the result of his act.

But must not by so doing he furthers the cause of human
happiness.

Man by nature is endowed with the talent of
devising means to remedy or prevent the evils
that are liable to arise from gratifying our appe-
tites; and it is as much the duty of the physician
to inform mankind of the means to prevent the
act as it is to inform them how to keep clear of the gout or dyspepsia.

Let not the old ascetic say we ought not to gratify our
appetites any further than is necessary to maintain
health and to perpetuate the species. Mankind will not so abstain, and if it means
to prevent the evils that may arise from a further
gratification can be devised, they need not.

Heaven has not only given us the capacity of
greater enjoyment, but the talent of devising
means to prevent the evils that are liable to arise
therefrom and it becomes us, "with thanksgiv-
ing," to make the most of them.

CHAPTER I.

Showing how desirable it is, both in a political
and a social point of view, for mankind to be
able to limit at will the number of their off-
spring, without sacrificing the pleasure that
attends the gratification of the reproductive
instinct.

First.—In a political point of view.—If popu-
lation be not restrained by some great physical
calamity, such as we have reason to hope will
not hereafter be visited upon the children of
men, or by some moral restraint, the time will
come when the earth cannot support its inhabi-
tants.

Population unrestrained will double three times in a century. Hence, computing
the present population of the earth at 1,000 mil-
ions, there would be at the end of 100 years from
the present time, 8,000 millions.

At the end of 200 years, 64,000 millions.

And so on multiplying by eight for every
additional hundred years. So that in 500 years
from the present time there would be thirty-two
thousand seven hundred and sixty-eight times
as many as at present. If the natural
increase should go on without check for
1,500 years, one single pair would increase to more
than thirty-five thousand one hundred and eighty-
four times as many as the present population of
the whole earth!

Some check then there must be, or the time
will come when millions will be born but to
suffer and perish for the necessaries of life.
To what an inconceivable amount of human
misery would such a state of things give rise?
And must we say that vice, war, pestilence, and
famine are desirable to prevent it? Must the
friends of temperance and domestic happiness
starve their efforts? Must peace societies excite
to war and bloodshed? Must the physician
cease to investigate the nature of contention,
and to search for the means of destroying its
beneficial influence? Must he that becomes
discussed be marked as a victim to die for the
public good, without the privilege of making an
effort to restore him to health? And in case of
a failure of crops in one part of the world, must
the other parts withhold the means of supporting

life that the far greater evil of excessive popu-
lation throughout the globe may be prevented?

Can there be no effectual moral restraint, at-
tended with far less human misery than such
physical calamities as these? Most surely
there can. But what is it? Malthus, an Eng-
lish writer on the subject of population, gives
us none but celibacy to a late age. But how
foolish it is to suppose that men and women
will become as monks and nuns during the
very holiday of their existence, and—abs completely
through the loss of the whole of the
years of life the nearest and dearest of social rela-
tions which they and perhaps their children will
not live to witness. But besides being ineffectual,
or if effectual, requiring a great sacrifice of en-
joyment, his restraint is highly objectional on
the score of its demoralizing tendency. It would
give rise to a frightful increase of prostitution,
and moral restraint,

The scientific part of Malthus's Doctrine of Popula-
tion is not very clearly or correctly given in the above
passage. His great theory, now generally held by
the most eminent political economists, is that the in-
crease of population is always powerfully checked in
old countries by the difficulty of increasing the supply
of food; that the existing evils of pestilence, the
most commonly at bottom caused by this check, and are brought
about by the pressure of population on the soil, and the
continuous over-stocking of the labor market, with lab-
ourers. Which society can escape from poverty, with all its miseries, is by putting a
strong restraint on their great natural powers of multi-
plification. "It is as much in the interest of all, that the
most permanent and general improvement in the
condition of the poor can be effected without an increase
in the preventive checks to population."—G. B.
Second. — In a social point of view. — "Is it not notorious that the families of the married often increase beyond what a reward for the young being coming into the world, or the happiness of those who give them birth, would dictate? In how many instances does the hard-working father, and more especially the mother, of a poor family rem in slaves throughout their lives, living at the rate of incessant labor, toiling to live, and living to toil; when, if their offspring had been limited to two or three only, they might have enjoyed comfort and comparative affluence? How often is the health of the mother, giving birth every year to an infant — happy if it be not twins — and compelled to toil, even at those times when nature imperiously calls for some relief from daily drudgery, — how often is the mother’s comfort, health, nay, even her life, sacrificed? Or if they have weighed down the spirit, and at length broken the health of the father, how often is the widow left unable, with the most virtuous intentions, to save her fatherless offspring from becoming degraded objects of charity, or profligate votaries of vice?"

"Nor is this all. Many women are so constituted that they cannot give birth to healthily, sometimes not to living children. Is it desirable, is it moral, that such women should become pregnant? Yet this is continually the case. Others there are who would never become parents; because, if they do, it is only to transmit to their offspring grievous hereditary diseases, which render such offspring mere subjects of misery throughout their sickly existence. Yet such women will not lead a life of celibacy. They marry. They become parents, and the sum of human misery is increased by their doing so. But it is folly to expect that we can induce such persons to live the lives of Shakers. Nor is it necessary; all that duty requires of them is to refrain from becoming parents. Who can estimate the beneficial effect which a rational moral restraint may thus have on the health and beauty and physical improvement of our race throughout future generations."

Let us now turn our attention to the case of unmarried youth.

"Almost all young persons, on reaching the age of maturity, desire to marry. That heart must be very cold, or very isolated, that does not find some object on which to bestow its affections. Thus, early marriage would be almost universal did not prudential consideration interfere. The young man thinks, I cannot marry yet; I cannot support a family. I must make money first, and think of a matrimonial settlement afterwards."

"And so he goes to making money, fully and sincerely resolved in a few years to share it with her whom he now loves. But passions are strong and temptations great. Curiosity, perhaps, introduces him into the company of those poor creatures whom society first reduces to a dependence on the most menial of mercenary trades, and then curses for being what she has made them. There his health and moral feelings alike are shipwreck. The affection he had thought to treasure up for their first object are chilled by dissipation and blunted by excess. He scarcely retains a passion but avarice. Years pass on — years of profligacy and speculation — and his first wish is accomplished, his fortune is made. Where now are the feelings and resolves of his youth?"

"He is a man of pleasure, a man of the world. He laughs at the romance of his youth, and marries a fortune. If gaudy equipage and gay parties confer happiness, he is happy. But if there be only the sunshine on the stormy sea below, he is a victim to that system of morality which forbids a reputable connection until the period when provision has been made for a large expected family. Had he married the first object of his choice, and simply delayed becoming a father until his prospects seemed to warrant it, how different might have been his lot. Until men and women are absolved from the fear of becoming parents, except when they themselves desire it, they will ever form mercenary and demoralizing connections, and seek in dissipation the happiness they might have found in domestic life."

"I know that this, however common, is not a universal case. Sometimes the heavy responsibilities of a family are incurred at all risks; and who shall say how often a life of unremitting toil and poverty is the consequence? Sometimes, if even rarely, the young mind does hold its first resolves. The youth plods through years of cold celibacy and solitary anxiety, happy if, before the best hours of his life are gone and its warmest feelings withered, he may return to claim the reward of his forbearance and his industry. But even in this comparatively happy case, shall we count for nothing the years of ascetic sacrifice at which after-happiness is purchased? The days of youth are not too many, nor its affections too lasting. We may, indeed, if a great object require it, sacrifice the one and mortify the other. But this, in itself, desirable, the great wisdom tells us that such sacrifice is a dead loss — to the warm-hearted often a grievous one. Does not wisdom bid us temperately enjoy the springtimes of life, while the evil day come not, nor the years draw nigh, when we shall say we have no pleasure in them?"

"Let us say, then, if we will, that the youth who thus sacrifices the present for the future, chooses wisely between the two evils, profligacy and asceticism. This is true. But let us not imagine the lesser evil to be a good. It is not good for man to be alone. It is for no man or woman’s happiness or benefit that they should be condemned to Shakerism. It is a violence done to the feelings and an injury to the character. A life of rigid celibacy, though infinitely preferable to a life of dissolution, is yet fraught with many evils. Perplexities, cares, sorrows, and instability of character are amongst the least of these. The mind is unsettled and the judgment warped. Even the very instinct which is thus mortified assumes an undue importance, and occupies a portion of the thoughts which does not of right or nature belong to it, and which during a life of satisfied affection it would not obtain."

"Like the rain on the mountain."

"Like the foam on the river."

"Like the bubbles in the fountain."

"They are gone, and never."

FRUITS OF PHILOSOPHY.
In many instances, the genital organs are rendered so irritable by the repletion to which unbridled sensuality gives rise, and by the much-maligned causing such repletion, as to induce a disease known to medical men by the name of Genorrhea Dormitium. It consists in an emission or discharge of the semen during sleep, or on waking. This discharge is immediately excited in most instances by a lascivious dream, but such dream is caused by the repletion and irritability of the genital organs. It is truly astonishing to what a degree of mental anguish the disease gives rise in young men. They do not understand the nature or the cause of the evil. They think it depends on a weakness of the nerves, or on any other disease of the body. They often call it a "semen weakness," and that it is caused by the repletion and irritability of the nerves. But it is not so. It is caused by the repletion and irritability of the genital organs. It is truly astonishing to what a degree of nervousness, debility, emaciation, and melancholy it can bring upon a man. The young man, instead of suffering such discomforts, should understand the meaning of the disease, and show that his own is unattended with disadvantageous result. This is an Americanism, which "appears to us to convey a false idea. It refers to the cases used as

CHAPTER II.

On Generation.

I hold the following to be important and undeniable truths: Every man has a natural right both to receive and convey a knowledge of all the facts and discoveries of every art and science, excepting such only as may be secured to some particular person or persons by copyright or patent. That a physical truth in its general effect cannot be a moral evil. That no fact in science or in morals ought to be concealed from the inquiring mind.

Some may make a mistake of knowledge, but that is their fault, and it is not right that one person should be deprived of knowledge, of spirits, of razors, or of anything else which is harmless in itself and may be useful to him, because another may misuse it.

The subject of generation is not only interesting as a branch of science, but it is so connected with the happiness of mankind that it is highly important in a practical point of view. Such is the custom of the age that it is not considered a proper subject to investigate before the popular assembly, and it is proper to entertain the idea of nature's like-ness, place, yet they must and ought to be attended to, for the good, the happiness of mankind require it; so too, for like reason, the subject of generation ought to be investigated until it is rightly understood by all people, but at such opportunities as the good man is in, every advantage, but from the known moral fact that ignorance of this process has in many instances led the cause of a lamentable misfortune, and more especially as it is essential to the attainment of the great advantage which it is the chief object of this work to bestow upon mankind.

People generally say that was the case with physicians until late years, entertain a very erroneous idea of what takes place in the conception. Accordingly to this idea the "check" which I consider far preferable to any other would not be so effectual as would be obvious to all. Consequently entertaining this idea, people would not have due confidence in it. Hence it is necessary to correct a long held and widely extended error. But this I cannot expect to do by simply saying it is an error. Deeply rooted and hitherto undisturbed opinions are not easily eradicated. If I would convince any one that the steps in one of the most remarkable processes of nature are not such as he has always believed, it will greatly serve my purpose to show what these steps are. I must first prepare him to be reasoned with, and then reason the matter all over with him. I must point out the facts which disprove his opinions, and show that my own is unattended with difficulties.

But what can be more obvious than that it is absolutely impossible to explain any process or function of the animal economy, so as to be understood, before the names of the organs which perform this function have been defined, that is, before the organs themselves have been described. Now it is well known that, it will greatly serve the purpose to show what these steps are.

We may make a mistake of knowledge, but that is their fault, and it is not right that one person should be deprived of knowledge, of spirits, of razors, or of anything else which is harmless in itself and may be useful to him, because another may misuse it.

* This is an Americanism, which "appears to us to convey a false idea. It refers to the cases used as
confined to practical utility. I shall, there-fore, endeavor to treat of the subject in this chapter so as to be understood, without giving any description of the male organs of generation; though I could it an accomplished task for one to be able to speak of those organs, as disease often put them under the necessity of doing, without being compelled to use low and vulgar language. But I must briefly describe the female organs; in doing which I must, of course, speak as do other anatomists and physiologists; and whoever objects to this will discover more affectation and prudery than good sense and good will to mankind.

The adipose, or fatty matter, immediately over the share-bone, forms, a considerable prominence in females, which, at the age of puberty, is covered with hair, as in males. This prominence is called Mons Veneris.

The exterior orifice commences immediately below this. On each side of this orifice is a prominence continued from the mons veneris, which is largest above and gradually diminishes as it descends. These two prominences are called the Labia Externa, or external lips. Near the latter end of pregnancy they become somewhat enlarged and relaxed, so that they sustain little or no injury during parturition. Just within the upper or anterior commissure, formed by the junction of these lips, a little round oblong body is situated. The body is called the clitoris. Most of its length is bound down, as it were, pretty closely to the bone; and it is of very variable size in different females. Instances have occurred where it was so enlarged as to allow the female to have venereal commerce with others; and in Paris this fact was once made a public exhibition of to the medical faculty. Women thus formed appear to partake in their general form of the male character, and are termed hermaphrodites. The idea of human beings, which is not very dept. The orifice of the urethra is transverse with respect to the body, and the other two lines pass downwards and inward, so as to form two flat bodies, the exterior edges of which are convex. They are called the nymphs. They extend downwards, one on each side, from the clitoris to the middle of the external orifice, somewhat diverging from each other. Their use is not very evident. The orifice of the urethra (the canal short in females, which leads to the bladder) is situated an inch or more farther inward than the clitoris, and is a little protuberant.

Passing by the external lips, the clitoris, the nymphs, and the orifice of the urethra, we come to the membrane called the hymen. It is situated just at or a trifle behind the orifice of the urethra. It is stretched across the passage, and were it a complete septum, it would close up the anterior extremity of that portion of the passage which is called the vagina. But the instances in which the septum or partition is complete are very rare, there being, in almost all cases, an aperture either in its centre or more frequently in its anterior edge, giving the membrane the form of a crescent. Through this aperture passes the menstrual fluid. Sometimes, however, this septum is complete, and the menstrual fluid is retained month after month, until appearances and symptoms much like those of pregnancy are produced, giving rise perhaps to unjust suspicions. Such cases require the simple operation of dividing the hymen. In many instances the hymen is very imperfect, insomuch that it is strengthened with the aid of considerable force. Where it exists it is generally ruptured in the first intercourse of the sexes, and the female is said to lose her virginity. In some rare instances it is so very strong as not to be ruptured by such intercourse, and the nature of the difficulty not being understood, the husband has sued for a divorce. But everything may be put to rights by a slight surgical operation. The parts here described are among those called the external parts of generation.

The internal organs of generation consist in the female of the Vagina, the Uterus, the Ovaries, and their appendages.

The Vagina is a membranous canal commencing at the hymen and extending to the uterus. It is a little curved, and extends backwards and upward between the bladder, which lies before and above it, and that extreme portion of the bowels called the rectum, which lies behind it. The coat of membrane which lines the internal surface of the vagina forms a number of transverse ridges. These ridges are to be found only in the lower or anterior half of the vagina, and they do not extend all round the vagina, but are situated on its anterior and posterior sides, while their lateral sides are smooth. I mention these ridges because a knowledge of them may lead to a more effectual use of one of the checks to be male known hereafter.

The Uterus or womb is also situated between the bladder and the rectum, but above the vagina. Such is its shape that it has been compared to a pear with a long neck. There is, of course, considerable difference between the body and the neck, the first being twice as broad as the last. Each of these parts is somewhat flattened. In subjects of mature age, who have never been pregnant, the whole of the uterus is about two inches and a half in length, and more than an inch and a half in breadth at the broadest part of the body. It is near an inch in thickness. The neck of the uterus is situated downwards, and may be said to be inserted into the upper extremity of the vagina. It extends down into the vagina the better part of an inch. In the uterus is a cavity which approaches the triangular form, and from which a canal passes down through the neck of the uterus into the vagina. This cavity is so small that its sides are almost in contact. So that the uterus is a thick, firm organ for so small a one. Comparing the cavity of the uterus to a triangle, we say the upper side or line of this triangle is transverse with respect to the body, and the other two lines pass downwards and inward, so...
that they would form an angle below; did they not before, they must take a turn more directly downwards to form the canal just mentioned. In each of the upper angles there is an orifice of such size as to admit of a hog's bristle. These little orifices are the mouths of two tubes, called the fallopian tubes, of which more will be said presently, because they lie attached to the cavity of the uterus, connecting the cavity of this organ with that of the vagina, is about a quarter of an inch in diameter. It is different from other ducts, for it seems to be a part of the cavity from which it extends, inasmuch as when the cavity of the uterus is enlarged in the process of pregnancy, this canal is gradually converted into a part of that cavity.

The lower extremity of the neck of the uterus is irregularly convex and tumid. The orifice of the canal in it is oval, and so situated that it divides the convex surface of the lower extremity of the neck in two portions, which are called the anterior and posterior. The anterior is larger than the posterior. The orifice itself is called os uteri, or os uteri, or in English, the mouth of the womb. When the parts are in a weak, relaxed state, the mouth or neck of the uterus is quite low, and in almost all cases it may be reached by a finger introduced into the vagina, especially by a second person who carries the hand behind.

The Ovaries are two bodies of a flattened or oval form, one of which is situated on each side of the uterus at a little distance from it, and about as high up as when the uterus becomes narrower to form the life. However, the number of the ovarium is about an inch. Each ovarium has a firm coat of membrane. In those who have not been pregnant, it contains from ten to twenty vesicles, which are little round bodies, formed of a delicate membrane, and filled with a transparent fluid. Some of these vesicles are situated so near the surface of the ovarium as to be prominent on its surface. They are of different sizes; the largest nearly a quarter of an inch in diameter.

In those in whom conception has ever taken place, some of these vesicles are removed, and in their place a cicatrix or scar is formed which continues through life. However, the number of cicatrices does not always correspond with the number of conceptions. They often exceed it, and are sometimes found where conception has not been known to take place. The Fallopian tubes are two canals four or five inches in length, proceeding from the upper angles of the cavity of the uterus, in a transverse direction in respect to the body. Having so proceeded for some distance, they turn downwards towards the ovaries. At their commencement in the uterus they are very small, but they enlarge as much as they progress. The larger ends, which hang loose, terminate in open mouths, the margins of which consist of semilunar processes, and nearly touch the ovaria.

We are now prepared to treat of conception. Yet, as menstruation is closely connected with it, and as a knowledge of many things concerning menstruation may contribute much to the well-being of females, for whom this work is at much designed as for males, I shall first briefly treat of the subject.

**Menstruation.**—When females arrive at the age of puberty they begin to have a discharge once every month, by way of the vagina, of the color of blood. This discharge is termed the menses. To have it, is to menstruate. The age at which menstruation commences varies with different individuals, and also in different climates. The warmer the climate the earlier it commences and ceases. In temperate climates it generally commences at the age of fourteen or fifteen, and it ceases at forty-four, or a little later.

Whenever it commences the girl acquires a more womanly appearance. It is a secretion of the uterus, or in other words, the minute vessels distributed to the inner coat of the uterus, select as it were, from the blood, and pour out in a gradual manner, the materials of this fluid. It has one of the properties, color, of blood, but it does not coagulate, or separate into different parts like blood, and cannot properly be called blood. When this discharge is in all respects regular, it amounts in most females to six or eight ounces, and is from two or four days' continuance. During its continuance the woman is said to be unwell, or out of order. Various unpleasant feelings are liable to attend it; but when it is attended with severe pain, as it not unfrequently is, it becomes a disease, and the woman is not likely to conceive until it be cured. During the existence of the "turns," or "monthlies," as they are often called, indigestible food, dancing in warm rooms, sudden exposure to cold or wet, and mental agitation, should be avoided as much as possible. The "turns" do not continue during pregnancy, nor nursing, unless nursing be continued after the "turns" recommence. Some women, it is true, are subject to a slight hemorrhage that sometimes occurs with considerable regularity during pregnancy, and which has led them to suppose they have their "turns" at such terms, but it is not so; the discharge at such times is real blood.**

The use of the menstrual discharge seems to be, to prepare the urinary system for conception. For females do not become pregnant before they

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* Dr. Chavasse, on p. 94 of his "Advice to a Wife" (published by W. H. Smith & Son), gives instances of very early menstruation and consequent fecundity. [Publishers' note]

* The menstrual discharge," says Dr. Kirk, "consists of a purulent fluid, the Junct surface of the uterus, and mixed with mucus from the inner surface of the vagina, and the external parts of the generative apparatus. Being diluted by this admixture, the menstrual blood is considerably less perfectly than ordinary blood, and the frequent acidity of the vaginal mucus tends still further to diminish its coagulability."—Handbook of Physiology, 6th ed., p. 127. 1874. G. R.

** Consult on the whole of this Dr. Chavasse's book, pp. 91-101, where full details are given.—[Publishers' note]
commence, nor after they cease having their
turns; nor while they are suppressed by some
disease—by cold or by nursing. Some cri-de
mort have, however, have said that they become
pregnant while nursing, without having had any
turn since their last lying-in. It is believed
that in these cases they had some discharge, colorless
perhaps, which they did not notice, but which
answered the purposes of the common one.
Women are not nearly so likely to conceive during
the week before a monthly, as during the week
immediately after. But although the use of
this secretion seems to be to prepare for conception,
it is not to be inferred that the reproductive
insect ceases at the turn of life, or
when the woman ceases to menstruate. On the
contrary, it is said that this passion often increases
at this period, and continues in a greater
or less degree to an extreme age.

Conception.—The part performed by the male
in the reproduction of the species consists in ex­
citing the organism of the female, and depositing
the semen in the vagina. Before I inquire what
places in the females, I propose to speak of the
semen.

This fluid, which is secreted by the testicles,
may be said to possess three kinds of properties,—phys­i­cal, chemical, physiological. Its physical
properties are known to every one,—it is a
thickish, nearly opaque fluid, of a peculiar odor,
saltish taste, etc. As to its chemical properties,
it is found by analysis to consist of 90 parts of
water, 00 of animal mucilage, 10 of soda, 30 of
Phosphate of lime. Its physiological property is
that of exciting the female genital organs in a
peculiar manner.

When the semen is examined by microscope,
there can be distinguished a multitude of small
animalcules, which appear to have a rounded
head and a long tail. These animalcules move with a certain degree of rapidity. They
appear to avoid the light and to delight in the
shade. Leeuwenhoek, if not the discoverer of
the seminal animalcules, was the first who
brought the fact of their existence fully before
the public. With respect to their size, he re­
marked that ten thousand of them might exist
in a space not larger than a grain of sand. They
have a definite figure, and are obviously differ­
ent from the animalcules found in any other fluid.
Leeuwenhoek believed them to be the beginnings
of future animals— that they are of different
sexes, upon which depends the future sex of the
fetus. Be this as it may, it appears to be ad­
mitted on all hands that the animalcules are
present in the semen of the various species of
male animals, and that they cannot be detected
when either from age or disease the animals are
rendered sterile. "Hence," says Bosiock, "we
can scarcely refuse our assent to the position
that these animalcules are in some way or other
instrumental to the production of the fetus."

The secretion of the semen commences at the age
of puberty. Before this period the testicles se­
crete a viscid, transparent fluid, which has nev­
ever been proved to the contrary, equally
able to conceive at all seasons of the year. Sec­
ond, a woman rarely, if ever, conceives until after
having several sexual connections; nor does one
connection in fifty cause conception in the mat­
rimonial state, where the husband and wife live
together uninterruptedly. Public women rarely
conceive owing probably to a weakened state of
the genital system, induced by too frequent and
promiscuous intercourse.

It is universally agreed, that some time after
a fruitful connection, a vesicle (two in case of
twins) of one or the other ovary becomes so
enlarged that it bursts forth from the ovary and
takes the name of ovum, which is taken up, or
rather received, as it bursts forth, by the thin­
bristled extremity of the fallopian tube, and is

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† Magendie's Physiology.—[Author's note.
From what has been said, it may therefore be concluded that the two states, that of menstruation and that of conception, are in a state of transition and establish a connection between the two.

Sixth. "Harvey and De Graaf dissected animals at almost every period after coition for the express purpose of discovering the semen, but were never able to detect the smallest vestige of it in the uterus in any one instance."

Aware of the insuperable difficulty of this view, the manner in which the semen reaches the ovary, it has been supposed by some physiologists that the semen is absorbed by the vagina and passes through the fallopian tubes into the ovary. But this hypothesis may be objected, that while there is no direct evidence in support of it, it is exceedingly unreasonable, as it is not possible to believe that the semen can pass through the whole round of circulation and then find its way to the ovary in such a way as to produce the fertilization of the ovum. Others, again, have told us that it is all done by sympathy. That neither the semen nor any volatile part of it finds its way to the ovary, but that the semen excites the parts with which it is in contact in a peculiar manner, and by a law of the animal economy, termed syngamy, a concept of parts, a population commences in the ovary, by which an ovum is developed.

To both of these conjectures it may be objected that they have no other foundation but the supposed necessity of adopting them, in account for the effect of the two factors, and further, they make no provision for the formation of mules; for the peculiarities of animals, and that the semen finds its way to the ovary in such a way as to produce the fertilization of the ovum. Others, again, have told us, that is all done by sympathy. That neither the semen nor any volatile part of it finds its way to the ovary, but that the semen excites the parts with which it is in contact in a peculiar manner, and by a law of the animal economy, termed syngamy, a concept of parts, a population commences in the ovary, by which an ovum is developed.

Fifth. "The tenacity of the male semen is such as renders its passage through the small aperture in the neck of the uterus impossible, even by a power of force much superior to that which the semen was ejected into the uterus, much less ejected into it. Second, it has followed a connection where, from some defect in the male organs, the semen terminating some inches behind the end of the penis, it is clear that the semen could not have been injected into the uterus, nor even near its mouth. Third, the neck of the uninjured uterus is so narrow as merely to admit a probe, and is filled with a thick tenacious fluid, which seemingly could not be forced away by any force which the male organ possesses of ejecting the semen, even if the mouth of the male urethra were in opposition with that of the uterus. Fourth, the mouth of the uterus is by no means fixed. By various causes it is made to assume various situations, and probably the mouth of the urethra rarely comes in contact with it.

Fifth. "Since Dr. Knowlton's work was written, the very important fact has been discovered that ovum may be periodically discharged from the ovaries in the human female and other animals, not in consequence of the voluntary connection between the former and the bladder, but quite independently of intercourse with the male. Such a discharge of ovum occurs in the lower animals at the time of heat or rut, and in women during menstruation. At such menstrual period, a Graafian follicle becomes enlarged, bursts, and the ovum which it contains passes into the fallopian tube, along which it passes to the ovary, thus eradicating Dr. Knowlton's idea. That the ovum is expelled from the ovary may take place independently of impregnation, or even of sexual union. And it is now established that, a like motion and discharge of ovum, independently of coition, occurs in Mammalia, the periods at which the uteri of these animals are separated from the ovary and released from the fallopian tubes being indicated in the lower Mammalia by the phenomena of heat or rut; in the human female by the phenomena of menstruation. Sexual desire and excitement in the human female being not equivalent to the phenomena of coition. It is not always the case in all cases, and the phenomena of menstruation may be observed in the latter fluid.

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have yet been fully discovered, but in a note on the sixteenth page of his "Essays on Various Subjects," the doctor says: "The existence of these vessels is now rendered almost certain, as Dr. Gartner, of Copenhagen, has discovered a duct leading from the ovary to the vagina." A second question of considerable moment relating to generation is from which parent are the first rudiments of the fetus derived.

The earliest hypothesis with which we are acquainted, and which has received the support of some of the most eminent of the moderns, assumes the original formation of the fetus to be a combination of particles of matter derived from each of the parents. This hypothesis naturally presents itself to the mind as the obvious method of explaining the necessity for the cooperation of the two sexes, and the resemblance in external form, and even in mind and character, which the offspring frequently bears to the male parent. "The principal objections," says Bostock, "to his hypothesis, independent of the want of any direct proof of a female seminal fluid, are of two descriptions, those which a priori depend upon the impossibility of unorganized matter forming an organized being, and those which are derived from observations and experiments of Haller and Spallanzani, which they brought forward in support of their theory of pre-existent germs.

In relation to these objections I remark first, that those whose experience has been with male females, suspect, can have no doubt but that the female organism increases like that of the male, until an emission of fluid of some kind or other takes place. But whether this secretion may properly be called semen, whether any part of it unites with the male semen in forming the rudiments of the fetus, is another question. For my part, I am inclined to the opinion that it does not.* I rather regard it as the result of excited excitation, analogous to the increased secretion of other organs from increased stimulation: and if it be for any object or use, as it probably is, it is that of affording nature a means of relieving herself; or, in other words, of quieting the venereal passion. If this passion, being once roused, could not by some means or other be calmed, it would command by far too great a portion of our strength, and with many constitutions the individuals, whether male or female, could not conduct themselves with due decorum. One fact which leads me to think that the female secretion in the act of colliion is not essential to impregnation is, that many females have conceived, if their unbiased testimony may be relied on, when they experienced no pleasure. In these cases it is more than probable that there was no orgasm, nor any secretion or emission of fluid on the part of the female.

As to the objection of the supposed impossibility of unorganized matter forming an organized being, I do not conceive that it weighs at all against the hypothesis before us, for I do not believe such a thing takes place, even if we admit that the original formation of the fetus is a combination of particles of matter derived from each of the parents. What do, or rather what ought we to mean by organized matter? Not, surely, that it exhibits some obvious physical structure, unlike what is to be found in inorganic matter, but that it exhibits phenomena, and of course may be said to possess properties unlike any kind of inorganic matter. Matter unites with matter in three ways, mechanically, chemically and organically, and each mode of union gives rise to properties peculiar to itself. When matter unites organically, the substance or being so formed exhibits some physiological properties essentially different from what inorganic bodies exhibit. It is on this account that we ascribe to organic bodies certain properties, which we call physiological properties, such as contractility, sensibility, life, etc. When, from any cause, these bodies have undergone such a change that they no longer exhibit the phenomena peculiar to them, they are said to have lost these properties, and to be dead. A substance need not possess all the physiological properties of an animal of the higher orders, to entitle it to the name of an organized or living substance. nor need it possess the physical property of solidity. The blood, as well as many of the secretions, does several things, exhibits several phenomena, which no mechanical or mere chemical combinations of matter do exhibit. We must therefore ascribe to it certain physiological properties, and regard it as an organized, a living fluid, as was contended by the celebrated John Hunter. So with respect to the semen, it certainly possesses physiological properties, one in particular, peculiar to itself, namely, the property of impregnating the female, and upon no sound principle can it be regarded in any other light than as an organized and of course may be said to possess properties peculiar to itself. When the female secretion or any part of it unites with the male secretions, and the rudiments of the fetus in a different manner than any other substance would, then it certainly has the property of doing so, whether we give this property a name or not; and a regard to the soundest principles of physiology compels us to class this property with the physiological or vital, and of course to regard this secretion as an organized fluid. So, then, unorganized matter does not form an organized being, admitting the hypothesis before us as correct.

That organized being should give rise to other organized beings under favorable circumstances as to nourishment, warmth, etc., is no more wonderful than that fire should give rise to fire when air and fuel are present. To be sure, there are some minute steps in the processes which are not fully known to us; still, if they ever should be known, we should unquestionably see that there is a natural cause for every one of them; and
that they are all consonant with certain laws of the animal economy. We should see no necessity of attempting to explain the process of generation by bringing to our aid, or rather to the darkening of the subject, any imaginary principle, as the *nues formalis* of Blumenbach.

As to the "observations and experiments of Haller and Spallanzani," I think with Dr. Bostock that they weigh but little, if any, against the theory before us. I shall not be at the labor of bringing them forward, and showing their futility as objections to this theory, for I am far from insisting on the correctness of it; that is, I do not insist that the semen is the raw material of the female semen, to convince sound minds of its correctness; that is, I do not insist on the correctness of this idea, it seems to me I should support of this idea, it seems to me I should give more particularly presently.

I know of no serious objections to this hypotheses, nothing but the "extreme improbability," as its opponents say, "that these animalcules should be the rudiments of being so totally dissimilar to them." But I wish to know if there is more difference between a fetus and a seminal animalcule than there is between a fetus and a few material particles in some other form than that of such animalcule?

The third hypotheses, or that of pre-existing germes, proceeded upon a precisely opposite view of the subject to that of Leeuwenhoek, namely, that the fetus is properly the production of the female; that it exists previous to the sexual congress, with all its organs, in some part of the uterine system; and that it receives no proper addition from the male, but that the seminal fluid acts me rely by exciting the powers of the fetus, or endowing it with vitality.

It is not known who first proposed this hypotheses; but strange as it may appear, it had both the opinion of Bonnet, Haller, and Spallanzani, and met with a favorable reception in the middle of the last century. Agreeable to this hypotheses, our common mother, Eve, contained a number of bomanuclei (little men) one within another, like a nest of boxes, and all within her ovaries, equal to all the number of births that have ever been, or ever will be, not to reckon on abortions. Were I to bring forward all the facts and arguments that have been advanced in support of this idea, it seems to me I should fail to convince sound minds of its correctness, as to arguments against it, they surely seemed uncalled for. Having now presented several hypotheses of generation, some as to the manner in which the semen reaches or influences the ovary, and others as the rudiments of the fetus, I shall now bring together those views which upon the whole appear to me the most satisfactory.

I believe with Dr. Dewees that a set of absorbent vessels extend from the innermost surface of the *tabula externa*, and from the vagina to the ovary, the whole office of which is to take up the semen or some part thereof and convey it to the ovary. I believe with Leeuwenhoek that the seminal animalcules are the proper rudiments of the fetus, and are perhaps of different sexes; that in case of impregnation one of them is carried not only to, but into a vesicle of an ovary, which is in a condition to receive and be duly affected by it. It is here surrounded by the albuminous fluid which the vesicle contains. This fluid being somewhat changed in its qualities by its new-comer, stimulates the minute vessels of the parts which surround it, and thus causes more albuminous fluid to be formed, and while it affords the animalcule material for its development, it puts the delicate membrane of the ovary which retains it in its place upon the stretch, and finally bursts forth surrounded probably by an exceedingly delicate membrane of its own. This membrane, with the albuminous fluid it contains and the animalcule in the centre of it, constitutes the ovum or egg. It is received by the umbilicated extremity of the fallopian tube, which by this time has grasped the ovary, and is by this tube slowly conveyed into the uterus, to the inner surface of which it attaches itself, through the medium of the membrane, which is formed by the uterus itself in the interm between impregnation and the arriving of the ovum in the way, I have just mentioned.

The idea that a seminal animalcule enters an ovum while it remains in the ovary was never before advanced to my knowledge; hence I consider it incumbent upon me to advance some reason for the opinion.

First, it is admitted on all hands that the seminal animalcule are essential to impregnation; since "they cannot be detected when either from age or disease the animal is rendered sterile."

Second, the ovum is impregnated while it remains in the ovary. True, those who believe in the SAY theory, and who, consequently, have adopted the idea that the semen is ejected into the uterus, as the best improbability of any with which they were acquainted, have found it very difficult to disposed of the fact that the ovum is impregnated in the ovary, and have consequently presumed this is not generally the case. They admit it is certainly so sometimes, and that it is difficult to reject the conclusion that it is always so. Dr. Bostock—who doubtless had not met with Dewees' theory at the time he wrote, and who admit it impossible to conceive how the semen can find its way along the fallopian tubes, how it can find its way towards the ovary, further, at most, than into the uterus, and, consequently, cannot see how the ovum can be impregnated into the ovary—says, "Perhaps the most rational supposition may be that...

"The opinion that the spermatozoa of seminal fluid, so called, real animalcules as they actually are, is held by Dr. Carpenter and other authorities that they actually, as it were stated, penetrate into the interior of the ovum. One type impregnates, another type impregnates, but it is unknown what kind. And, in probability it is, above all, essential in order that it should occur, that one of those spermatozoa should penetrate the ovum. In this state, spermatozoa are many times in their technical eggs of the most diverse species of animals."

—"Elements of Human Physiology," translated from the 3rd ed. by Dr. Gannage p. 531, 1875. —G.B.
the ovum is transmitted to the uterus in the unimpregnated state: but there are certain facts which seem almost incompatible with this idea, especially the cases which not infrequently occur of perfect fetuses having been found in the tubes, or where they escaped into the cavity of the abdomen. Hence it is demonstrated the ovum is occasionally impregnated in the tuber (why did he not say ovarium?), and we can scarcely resist the conclusion that it must always be the case."

"Haller discusses this hypothesis (Bostock's 'most natural supposition, perhaps') and decides against it."

"The experiments of Cunkshank, which were very numerous, and appear to have been made with the requisite degree of skill and correctness, led to the conclusion that the rudiment of the young animal is perfected in the ovarium."

"A case is detailed by Dr. Granville of a fetus, which appears to have been lodged in the body of the ovarium itself, and is considered by its author as a proof that the animalcule always takes place in this organ."

The above quotations are from the third volume of Bostock's Physiology.

Now, as the seminal animalcule are essential to impregnation, and as the ovum, is impregnated in the ovarium, what more probable conjecture can we form than an animalcule, as the real proper rudiment of the fetus, enters the ovum, where, being surrounded with a luminous fluid with which it is nourished, it gradually becomes developed? It may be noticed that Leewenhoek estimates that ten thousand animalcule of the human species may exist in a space not larger than a grain of sand. There can, therefore, be no difficulty in admitting that they may find their way along exceedingly minute vessels from the vagina, not only to, but into the ovum, while situated in the ovarium.

I think no one can be disposed to maintain that the animalcule merely reaches the surface of the ovum, and thus impregnates it. But possible some may contend that its sole office is to stimulate the ovum, and its way set going that train of action which are essential to impregnation. But there is no evidence in favor of this last idea, and certainly it does not so well harmonize with the fact that the animalcule generally partakes more or less of the character of its male parent. As Dr. Dewees says of the doctrine of sympathy, "It makes no provision for the formation of mules; for the peculiarities of, and likeness of parents; and for the propagation of predisposition to 'disease from parent to child; for the production of mulattos."

Considering it important to do away with the popular and mischievous error that the semen must enter the uterus to effect impregnation, I shall, in addition to what has been already advanced, here notice the experiments of Dr. Harigton. He divided the fallopian tubes in numerous instances, and found that after the operation a fetus is never produced, but that corpora lutea were formed. The obvious conclusions from these facts are, that the semen does not traverse the fallopian tubes to reach the ovaria; yet that the ovum becomes impregnated while in the ovarium, and, consequently, that the semen reaches the ovum in some way, except by the uterus and fallopian tubes. I may remark, however, that a corpus luteum is not positive proof that impregnation at some time or other has taken place; yet they are so rarely found in virgins that they were regarded as such proofs until the time of Blumenbach, a writer of the present century."

"Harvey and Deferrant dissected animals at most every period after coition; for the express purpose of discovering the semen, but were not able to detect the smallest vestige of it in the uterus in any one instance." —Devere's Essay on Superfetation. The fact of Superfetation furnishes a very strong argument against the idea that the semen enters the uterus in impregnation.

A woman being impregnated while she is already impregnated constitutes superfetation. It is established beyond a doubt that such instances have occurred, yet those who have supposed that it is necessary for the semen to pass through the mouth of the uterus to produce conception have urged that superfetation could not take place, because, say they — and they say correctly — as soon as impregnation shall have taken place, the ovum if released becomes inimical to the fetus in the uterus by its extreme form of a fallopian tube. The second case I will give in his own words:

"A white woman, servant to Mr. H., of Abingdon township, Montgomery county, was delivered of a female child five or six days before the usual time of her confinement. One of her children was quite white, the other perfectly black. When I resided in that neighborhood, I was in the habit of seeing them almost daily and also had frequent conversations with Mrs. H. respecting them. She was present at their birth, so that no possible deception could have been practised respecting them. The white girl is delicate, fair-skinned, light-haired and blue-eyed, and is said very much to resemble the mother. The other has all the characteristic marks of the African; short of stature, flat, broad-nosed, woolly-haired, woolly-headed, flat-footed, and projecting heels; she is said to resemble a negro they had on the farm, but with whom the woman never would acknowledge a intimacy: but of this there was no doubt, as both he and the white man, with whom her connection was detected,"

* A corpus luteum is a little yellowish body, formed in the ovary by changes that take place in the Graafian vesicle, after it has burst and discharged its contents. Corpora lutea were formerly considered a sure sign of impregnation, as they were thought to be developed only or chiefly in case of pregnancy, but it is now known that they occur in all cases where a vesicle has been ruptured and an ovum discharged; though they attain a larger size and are longer visible in the ovary when pregnancy takes place than when it does not. —G. E.
The circumstances under which a female is most likely to conceive are, first, when she is in perfect health, and free from any of those intercourses she had previously enjoyed; fourth, soon after menstruation. Regarding this latter circumstance, Dr. Dewees remarks, "Perhaps it is not proper to say, that the woman is liable to conceive at any part of the menstrual interval. It is generally supposed, however, that the most favorable instant is immediately after the catamenia have ceased." Perhaps this is so as a general rule; but it is certainly liable to exceptions. * and he relates the following case which occurred to his own notice:

"The husband of a lady who was obliged to absent himself many months in consequence of the embarrassment of his affairs, returned one night clandestinely, his visit being only known to his wife, his mother, and myself. The consequence of this visit was the impregnation of his wife. The lady was at that time within a week of her menstrual period; and as this did not fail to take place, she was led to hope that she had not suffered by the visit of her husband. But her catamenia not appearing at the next period, gave rise to a fear that she had not conceived; and the birth of a child nine months and thirteen days from the night of this visit proved her apprehensions too well groundless."

I think this case is an exception to a general rule; and, furthermore, favors an idea which reason and a limited observation rather than positive knowledge has led me to advance above, namely, that a woman is more likely to conceive, other things being the same, after being deprived for a season of those intercourses she had previously enjoyed. Had this lady's husband remained constantly at home, she would probably either not have conceived at all, or have done so a fortnight sooner than she did.

The term of utero-gestation, or the length of time from conception to the commencement of labor, is not precisely determined by physiologists. It seems, however, says Dr. Dewees, "that a woman in perfect health, and pregnant with a healthy child, may exceed the period of nine months by several days; the other, that a check is not always immediately given to the cataminal flow by an ovum being impregnated." Probably it is not so generally as many suppose.

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when we consider that they are not confined to the human species. From the experiments of Tessier, it appears that the term of utero-gestation varies greatly with the cow, sheep, horse, swine, and other animals to which his attention was directed.

Properly connected with the subject of generation are the signs of pregnancy. Dr. Dewees remarks that "our experience furnishes no certain mark by which the moment conception takes place is to be distinguished. All appeals by the women to particular sensations experienced at the instant should be very guardedly received, for we are certain they cannot be relied upon; for enjoyment and indifference are alike fictitious. Nor are certain nervous tremblings, nausea, palpitation of the heart, the sensation of something flowing from them during coition, etc., more to be relied upon." Burns, however, says, "Some women feel, immediately after conception, a peculiar sensation, which apprises them of their situation, but such instances are not frequent, and generally the first circumstances which lead a woman to suppose herself pregnant are the suppression of the menses"; a fickle appetite, some sickness, perhaps vomiting, especially in the morning; returning qualms, or languor in the afternoon; she is liable to heartburn, and to disturbed sleep. The breasts at first often become smaller, and sometimes tender; but about the third month they enlarge, and occasionally become painful. The nipple is surrounded with an areola or circle of a brown color, or at least of a color sensibly deeper or darker than before. She loses her looks, becomes paler, and the under part of the lower eyelid is often somewhat of a leaden hue. The features become sharper, and sometimes the whole body begins to emaciate, while the pulse quickens. In many instances particular symptoms take place, causing salivation, toothache, jaundice, etc. In other cases very little disturbance takes place, and the woman is aware of her condition until the time of quickening, which is generally about four months from conception. It is possible for woman to mistake the effects of wind for the motion of the child, especially if they have never borne children, and be anxious for a family; but the sensation produced by wind in the bowels is not confined to one spot, but is often felt at a part of the abdomen where the motion of a child could not possibly be felt. Quite as frequently, perhaps, do feeble women think themselves dropical, and mistake motions of the child for movements of water within the abdominal cavity. The motion of the child is not to be confounded with the sensation sometimes produced by the uterus rising out of the pelvis, which produces the feeling of fluttering. At the end of the fourth month, the uterus becomes so large that it is obliged to rise out of the pelvis, and if this elevation takes place suddenly, the sensation accompanying it is pretty strong, and the woman at the time feels sick or faint, and in irritable habits even a hysterical fit may accompany it. After this the morning sickness and other sympathetic effects of pregnancy generally abate, and the health improves.

Very soon after impregnation, if blood be drawn, and suffered to stand a short time undis-
The action may be imperfect in several respects. The men are obstructed or spurring, or they may be too diffuse or frequent. It is extremely rare for a woman to conceive who does not menstruate regularly. Hence when this is the case, the first step is to reconcile this periodical disease.* For this purpose the advice of a physician will generally be required, for these irregularities depend upon such various causes and require such a variety of treatment, that it would be inconsistent with the plan of this treatise to attempt giving it, or remedying them. A state of exhaustion, or weakness of the uterine system, occasioned by too frequent intercourse, is a frequent cause of sterility. The sterility of prostitutes is attributed to this cause, but I doubt it being the only one. With females who are apparently healthy, the most frequent cause is a torpor, rather than weakness, of the genital organs.

For the removal of sterility from this cause, I shall give some instructions, and this I do the more readily because the requisite means are such as will regulate the menses in many cases, where they do not appear so early in life, so rarely or so frequently as they ought.

In the first place it will generally be necessary to do something towards invigorating the system by exercise in the open air, by nourishing food of easy digestion, by sufficient dress, particularly flannel, and especially by strict temperance in all things. With this view also, some scales which fall from the blacksmith’s anvil, or some steel filings, may be put into old cider or wine (cider best), and after standing a week or so, as much may be taken two or three times a day as can be borne without disturbing the stomach. All the while the bowels are to be kept rather open, by taking from one to three of Full reet every night on going to bed. These pills consist of four parts of aloes, two parts of myrrh, and one of saffron, by weight.

These measures having been regularly pursued until the system be brought into a vigorous state, medicines which are more particularly calculated to arouse the genital organs from a state of torpor may be commenced, and continued for months if necessary. The cheapest, most simple (and I am not prepared to say it is not the most effectual in many cases), is asyline. All the virtues of this article are not generally known even in physicians. I know it does not have the effect upon the costs of the stomach that our imagination attributed. It may be taken in the quantity of from one to two rising teaspoonful, or even more, every day, upon food or upon any liquid vehicle. Another medicine of much efficacy is Dewees’ Volatile Tincture of Guaiac. It is generally kept by apothecaries, and is prepared as follows:—

Take of Gum Guaiacum, in powder, eight ounces; carbonate of Potash, or of Soda; or (what will answer) Sulfur, three drachms; Alspice, in powder, two ounces; any common spirits of good strength, two pounds or what is about that; two pints or a pint and a half. Put all into a bottle, which may be shaken now and then, and use of it may be commenced in a few days. To every gill of this, at least a large teaspoonful of Spirits of Ammonia is to be added. A teaspoonful is to be taken for a dose, three times a day in a glass of milk, cider or wine. It is usually given before eating; but if it should chance to offend the stomach when taken before breakfast, it may in this case be taken an hour after.

Dr. Dewees found this tincture, taken perhaps for mouths, the most effectual remedy for painless menstruation, which is an obsolete complaint. If there be frequent strong pulse, heat, thirst, florid countenance, etc., it is usually given in doses of one to two drachms, and continued until these symptoms be removed by low diet, a few doses of salts, and bleeding, if required.

A third medicine for arousing the central organs is tincture of Spanish Flies. But I doubt its being equal, in sterility, to the above-mentioned medicines, though it may exceed them in some cases, and may be tried if these fail. A drachm of them may be put to two gills of spirits.

Dose, 25 drops, in water, three times a day; increasing each one by two or three drops until some degree of strangury occurs, then omit until this pass off, as it will in a day or two. Should the strangury be severe, drink freely of milk and water, slipperies or flax-seed tea.

In many cases of sterility, where the general health is considerably in fault, and especially when the digestive organs are torpid, I should have much confidence in a Thomsonian course. It is calculated to arouse the capillary vessels throughout the whole system, and thus to open the secretions, to remove obstructions, and free the blood of those effete and phlegmy materials which nature requires to be thrown off. The views of the Thomsonian as to heat and cold appear to me unphilosophical. But this has nothing to do with the efficiency of their measures.

In relation to sterility, I would here bring to mind, what has been before stated, that a woman is most likely to conceive immediately after a menstrual turn; and now, also, let me suggest the idea that nature’s delicate beginnings may be frustrated by the same means that put her ageing. This idea is certainly important when the woman is known to have miscarried a number of times. Sterility is sometimes to be attributed to the male, though he apparently be in perfect health. It would be an interesting fact to ascertain if there be no seminal animalcules in these cases; and whether medicines of any kind are available.

It has been ascertained that a male and female may be sterile in relation to each other, though neither of them be so with others.

The foregoing measures for sterility are also suitable in cases of impotency. This term I believe is generally confined to, and defined as a want of desire or ability, or both, on the part of the male, but I see no good reason why it should not comprehend the case in which there is neither desire or pleasure with the female. Such females, it is true, may be fruitful; but so, on the other hand, the semen may not have lost its fecundating property. Impotency, at a young or middle age, and in some situations in life, especially, is certainly a serious misfortune, to say the least of it. The whole evil by no means consists, in
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every case, in the loss of a source of pleasure. All young people ought to be apprised of the causes of it—causes which in many instances greatly lessen one's ability of giving and receiving that pleasure which is the root of domestic happiness. I shall allude to one cause, that of liquor, and especially solitory gratification, in another place. Intemperance in the use of spirits is another powerful cause. Even a moderate use of spirits, and also of tobacco, in any form, have some effect. It is a law of the animal economy, that no one part of the system can be stimulated or excited, without an expense of vitality as it is termed. The part which is stimulated draws the energy from other parts. And hence it is, that close and deep study, or some occupation to divert the mind with, without exercise of the organs, I should have much confidence in this. The general health is to be improved by temperance, proper exercise in the open air, cheerful company, change of scenery, or some occupation to divert the mind without requiring much exercise of it; nourishing food of easy digestion; flannel worn next to the skin. The cold bath may be tried, and if it be followed by agreeable feelings, it will do good. The bowels may be gently stimulated by the pills before mentioned; and preparation of iron also, already mentioned, should be taken.

To stimulate the genital organs more directly, cayenne, Dewees' tincture of guaiac, or tincture of flies may be taken. I have given directions for making and taking the tincture of flies, chiefly because it is esteemed one of the best remedies for impotency caused by or connected with nocturnal emissions, to which I have before alluded.

It is in cases where little or no pleasure, nor erection attend these emissions—cases brought on by debauchery, or in elderly persons—that I would recommend tincture of flies, and the other measures above mentioned. In some bad cases, enormous doses of this tincture are required, say two or three hundred drops. Yet the best rule for taking it is that already given, namely, begin with small doses, and gradually increase until some strangury be felt, or some benefit be received. In this affection, as well as in all cases of impaired virility, the means I have mentioned are to be pursued for a long time, unless relief be obtained. These have cured after having been taken for a year or more without the result. In all cases of impotency not evidently depending upon disease of some part besides the genital organs, I should have much confidence in blisters applied to the lower part of the spine.

Occasional nocturnal emissions, accompanied with erection, and pleasure, are by no means to be considered a disease, though they have given many a one much uneasiness. Even if they be frequent, and the system considerably debilitated, I do not consider debauch, and the person be turned aside, it is the common measure. There have been several means proposed and practised for checking conception. I shall briefly notice them, though a knowledge of the best is what most concerns us. That of withdrawal immediately before emission is certainly effective, if practised with sufficient care. But if (as I believe) Dr. Dewees' theory of conception be correct, and as Spallanzani's experiments show that only a trifle of semen, even largely diluted with water, may impregnate by being injected into the vagina, it is clear that nothing short of complete withdrawal is to be depended upon. But the old notion that the semen must enter the uterus to cause conception has led many to believe that a partial withdrawal is sufficient, and it is on this account that this error has proved mischievous, as all important errors generally do. It is said by those who speak from experience, that the practice of withdrawal has an effect upon the health similar to temperance in eating. As the subsequent exhaustion is probably mainly owing to the shock the nervous system sustains in the act of coition, this opinion may be correct. It is further said that this practice serves to keep alive those fine feelings with which married people first come together. Still Fioravanti has no hesitation in deciding whether this check be so far satisfactory as not to render some other very desirable.

As to the baudruche, which consists in a covering used by the male, made of very delicate skin, it is by no means calculated to come into general use. It has been used to secure from syphilitic affections.

Another check which the old idea of conception has led some to recommend with considerable confidence, consists in introducing into the vagina, previous to connection, a very delicate piece of sponge, moistened with water, to be immediately afterward withdrawn by means of a very narrow ribbon attached to it. But as our views would lead us to expect, this check has not proved a sure preventative. As there are many little ridges or folds in the vagina, we cannot suppose the withdrawal of the sponge would dislodge all the semen in every instance. If, however, it were well moistened with some liquid which acted chemically upon the semen, it would be pretty likely to destroy the fecundating property of what might remain. But if this check were ever so sure, it would, in my opinion, fall short of being equal, all things considered, to the one I am about to mention,—one which not only dislodges the semen perfectly effectually, but at the same time destroys the fecundating property of the whole of it.

It consists in squirting the vagina immediately after connection with a solution of sulphate of zinc, of alum, pearl-ash, or any salt that acts chemically upon the semen, and at the same time produces no unfavorable effect on the female. In all probability a vegetable astrigem would answer—as an infusion of white oak bark, of red rose leaves, of nuggals, and the like. A lump of either of the above-mentioned salts, of the size of a chestnut, may be dissolved in a pint of water, making the solution weaker or stronger as it may be borne without producing any irritation of the parts to which it is applied. These solutions will not lose their virtues by age. A * This was a check advocated by Carlos.—[Publishers' note.}
female syringe, which will be required in the use of the check, may be had at the shop of an apothecary for a shilling or less. If preferred, the semen may be dislodged, as far as it can be, by syringing with simple water, after which some of the solution is to be injected, to destroy the fecundating property of what may remain lodged between the ridges of the vagina, etc.

I know the use of this check requires the woman to leave her bed for a few moments, but this is its only objection; and it would be unreasonable to suppose that any check can ever be devised entirely free of objections. In its favor, it may be said, it costs nearly nothing; it is simple, clear, and sure of success; it is in the hands of the female; it is to be used after, instead of before connection, a weighty consideration in its favor, as a moment’s reflection will convince any one; and last, but not least, it is conducive to cleanliness, and preserves the parts from relaxation and disease. The vagina may be very much contracted by a persevering use of syringe, and they are constantly used for this purpose in cases of "discontinuation uteri," or a sinking down of the womb; subjects as woman are to "fluor albus," and other diseases of the genital organs; it is rather a matter of wonder that they are not more frequent. They are considering the prevailing practices. Those who have used this check (and some have used it, to my certain knowledge, with entire success for nine or ten years, and under such circumstances as leave no room to doubt its efficacy) affirm that they would be at the trouble of using injections merely for the purposes of helath and cleanliness.*

By actual experiment it has been rendered highly probable that pregnancy may, in many instances, be prevented by injections of simple water, applied with a tolerable degree of care. But simple water has failed, and its occasional failure is what we should expect, considering the anatomy of the parts, and the results of Spallanzani’s experiments heretofore alluded to.

Thus much did I say respecting this check in the first edition of this work. That is what I call the chemical check. The idea of destroying the fecundating property of the semen was original, if it did not originate with me. My attention was drawn to the subject by the perusal of "Moral Physiology." Such was my confidence in the chemical idea that I sat down and wrote the first edition of this work. That is what I consider the chemical check. The idea of destroying the fecundating property of the semen was original, if it did not originate with me. My attention was drawn to the subject by the perusal of "Moral Physiology." Such was my confidence in the chemical idea that I sat down and wrote the first edition of this work. That is what I consider the chemical check. Spallanzani’s experiments heretofore alluded to.

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root of the kindliest charities and most gener-
ous impulses that honor and bless human nature.
It is a much more noble, because less purely
selfish instinct than hunger or thirst. It is an
instinct that actuates itself around the warmest
feelings and best affections of the heart—
Moral Physiology. But too frequently its
existence, together with a want of moral culture,
is such that it is not "controlled by reason," and
consequently, from time immemorial, it has
been gratified either in a mischievous manner,
or to such an intemperate degree, or under such
improper circumstances, as to give rise to an
unbearable amount of human misery. For
this reason it has, by some, been regarded as a
low, degrading, and "carnal" passion, with which
a holy life must be ever at war. But, in the
instinct itself, the philosopher sees nothing de-
serving of degrading epithets. He sees not that
nature should war against herself. He believes
that in savage life it is, and in wisely organized
societies of duly enlightened and civilized-beings
it would be, a source of ten fold more happiness
than misery.

A part of the evil consequences to which this
instinct is daily giving rise under the present
existing state of society, is theerto fallen. It
is left to the moralist to point out; whilst of others it falls
within the province of the physician to treat.

But let me first remark, that physicians have
hitherto fallen far short of giving those instruc-
tions concerning this instinct which its impor-
tance demands. In books, pamphlets, journals,
even, they have laid much before the public,
respecting eating, drinking, bathing, lacing, air,
exercise, etc., but have passed by the still more
important subject now before us, giving only
here and there some faint allusion to it. This, it
is true, the customs, not to say pruderies, of the
age have compelled them to do; in publications
designed for the public eye, yet, in some small
work, indicated by its title to be for private
perusal, they might, with the utmost propriety,
embody much highly useful instruction in
relation to this instinct.*

This instinct is liable to be gratified at impro-
per times, to an intemperate degree, and in a mis-
chievous manner.

True philosophy dictates that this and all other
appetites be so gratified as will most conduce to
human happiness—not merely the happiness at-
tending the gratification of one of the senses,
but all the senses—not merely sensual happiness,
but intellectual—not merely the happiness of the
individual, but of the human family.

First.—Of the times at which this instinct
ought not to be gratified. With females it ought
not to be gratified until they are seventeen or
eighteen years of age, and with males not until
they are a year or two older. The reason is, if
they refrain until these ages, the passion will
hold out the longer, and they will be able to de-
serve much more pleasure from it in after life,
the earlier gratified, especially to any great
extent. A due regard to health also enjoins
with most persons some restraint on this instinct
—indeed, at all times, but especially for a few
years after the above-mentioned ages. It ought
not to be rashly gratified at first. Begin temper-
ance in this instinct as the system becomes more
mature, and more habituated to the effects naturally
produced by the gratification of this instinct, it will
bear more without injury. Many young married
people, ignorant of the consequences, have de-
bilitated the whole system—the genital system
in particular: have impaired their mental ener-
gies; have indulged consumptive and other dis-
ases; have rendered themselves irritable, unso-
moral, melancholy, and finally, much impaired,
perhaps destroyed their affection for each other
and unde gratification becomes the reproduc-
itive instinct. In almost all diseases, if gratified at all,
it should be very temperately. It ought not to be
gratified during menstruation, as it might
prove productive to the man of symptoms similar
to those of syphilis, but more probably to the
woman of a weakening disease called fluor albus.
The case of pregnancy a temperate gratification
for the first two or three months may be of no
injury to the woman or the forthcoming offspring.
But it ought to be known that the growth of the
fetus in utero may be impaired, and the seeds of
future bodily infirmity and mental imbecility
inflamed by numbers, but that it depends on cir-
stances; and what would be temperance in one
may be intemperance in another. And
with respect to an individual, too, what he might
enjoy with impunity, were he a laboring man, or
a man whose business requires but little mental
exercise, would, were he a student, unfit him for
the successful prosecution of his studies. In-
temperance in the gratification of this instinct
has a tendency to lead to intemperance in the
use of ardent spirits. The languor, depression
of spirits, in some instances faintness and want
of appetite, induced by intemperate gratification,
called loudly for some stimulus, and give a relish
to spirits. Thus the individual is led to drink.
This inanes the blood, the passions, and leads
to further indulgence. This again calls for more
spirits; and thus two vicious habits are com-
enced, which mutually increase each other.
Strange as it may appear to those unacquainted
with the animal economy, an intemperate in-
dulgence sometimes gives rise to the same dis-
ease—so far as the name makes it so—that is fre-
cently cured by a temperate indulgence; viz.,
nighturnal emissions.

Every young married woman ought to know
that the male system is exhausted in a far
greater degree than the female by gratification.

* Gonorrhoea, or a purulent discharge, and not syphilis.
It is easy to see what a hard and constant
is the product of a particular blood-poison, and
never at all except by contagion, from another person
suffering from a similar disease. — G. R.
It seems, indeed, to have, but little effect, comparatively, upon some females. But with respect to the male, it has been estimated by Tisot that the loss of one ounce of semen is equal in its effects upon the system of 40 ounces of blood. As it respects the immediate effects, this estimation, generally speaking, may not be too great. But a man living on a full meat diet, doubtless, part with fifty ounces of semen in the course of a year, with far less detriment to the system than with 2000 ounces of blood. It is fact, that mode of living, independent of occupation, makes a great difference with respect to what the system will bear. A full meat diet, turtles, oysters, eggs, spirits, wine, etc., certainly promote the secretion of semen, and enable the system to bear its emission. But a cool vegetable and milk diet calms all the fiercer passions, the venereal especially. Most men adopting such a diet as this will suffer no inconvenience in extending the intervals of their gratification to three or four weeks; on the contrary, they will enjoy clear intellect, and a fine flow of spirits. This is the secret, in a great measure, of literary pursuits, especially the unmarried.

As to the mischievous manner, it consists in the unnatural habit of onanism, or solitary gratification; it is an anti-social and demoralizing habit, which, while it proves no quietus to the mind, impairs the bodily powers, as well as mental, and not infrequently leads to insanity. While the gratification of the reproductive instinct in such manner as mentioned leads to bad consequences, a temperate and natural gratification, under proper circumstances, is attended with good, besides the mere attendant pleasure, which alone is enough to recommend such gratification. I admit that human beings might be so constituted that if they had no reproductive instinct to gratify, they might enjoy health; but being constituted as they are, this instinct cannot be mortified with impunity. It is a fact universally admitted, that unmarried females do not enjoy so much good health and attain to so great an age as the married; notwithstanding that the latter are subject to the diseases and pains incident to child-bearing. A temperate gratification promotes the revolutions, and the appetite for food; calms the restless passions; induces pleasant sleep; awakens social feeling; and adds a zest to life which makes one conscious that life is worth preserving.

APPENDIX.

[Here connect with this work, by way of Appendix, the following extract from an article which appeared in the "Boston Investigator," a paper which, admirable dicta, is so "crazy" as to be open to the investigation of all subjects which mightly concern mankind.]

The only seeming objection of much weight that can be brought against diffusing a knowledge of checks is, that it will serve to increase illegal connections. Now, this is exactly the contrary effect of that which those who have diffused such knowledge most confidently believe will arise from it. To diminish such connections is indeed one of the grand objects of these publications,—an object which laws and prisons cannot, or, at least, do not, accomplish. Why is there so much prostitution in the land? The true answer to the question is not, and never will be. Because the people have become acquainted with certain facts in physiology; it is because there are so many unmarried men and women,—men of dissipation and profligacy, inveigling their not active mates in these younger days and settled down in life. But why, are there so many unmarried people in the country? Not because young hearts when they arrive at the age of maturity do not desire to marry; but because prudential considerations interfere. The young man thinks: I cannot marry yet. I cannot support a family; I must make money first, and think of a matrimonial settlement afterwards. And so it is, that, through fear of having a family, before they have made a little headway in the world, and of being there afterward overwhelmed by the labors of literary pursuits, especially the unmarried.

The truth, then, is this, there is so much of illegal connection in the land, because the people had not, twenty years ago, that very information, which, it would seem to some, doubtless through want of due reflection, are apprehensive will increase this evil. I might quote pages to the point from "Every Woman's Book," but I fear my communication would be too lengthy. I content myself with a few lines. It has become the custom here as elsewhere to limit the number of children, so that none need have more than they wish, no man will fear to take a wife: all will marry while young; debauchery will diminish; while good morals and religious duties will be promoted.

It has been asked if a general knowledge of checks would not diminish the general increase of population? I think that such would not be the result in this country until such result would be desirable. In my opinion, the effect would be to make good marriages (which are the whole as many births); but not so many overgrown and poverty-stricken ones.

It has been said, It is best to let nature take her course. Now, in the broadest sense of the word "Nature," I say so too. In this sense, there is nothing unnatural in the universe. But if we limit the sense of the word Nature so as not to include what we mean by art, then is civilized life one continued warfare against nature. It is by art that we subdue the forest; by art we contend against the elements; by art we combat the natural tendency of disease, etc.

As to the outrageous slander which has and there one has been heard to utter against the fair sex, in saying that fear of conception is the foundation of their chastity, it must be the sentiment of a "carinul heart," which has been peculiarly unfortunate in its acquainiances. "To the pure all things are pure." Chastity, as well as its opposite, is in a great degree constitutional, and ought, in a like degree, to be regarded as a physical property. If I may so say, rather than a moral quality. Where the constitution is
favorable, a very indifferent degree of moral training is sufficient to secure the virgin without the influence of the above-mentioned fear; but where it is the reverse, you may coop up the individual in the narrow dark cage of ignorance and fear, as you will, but still you must watch. An eminent moralist has said, "That chastity which will not bear the light [of Physiology] is scarcely worth preserving." But verily I believe there is very little such in the market. What there be is naturally short-lived, and, after its demise, the unhappyly constituted individual stands in great need of this light to save him from ignominy. What might it not have prevented in the Pull River affair? And if one of two things must happen—either the destruction of sensuality or the destruction of life—which of the two is the greater evil? In these cases, alone, this light is calculated to do sufficient good to counterbalance all the evil that would arise from it; so that we should have its important advantages to the married in a political, a domestic, and a medical point of view, as so much clear gain. This, of course, is my opinion; but since I have probably reflected more upon the subject than all the persons concerned in my imprisonment put together, until it can be shown that I have not as clear a head and as pure a heart as any of them, I think it entitled to some weight.