

QP G716r 1886

61010370R



NLM 05040615 8

NATIONAL LIBRARY OF MEDICINE





THE LAWS

OF

GENERATION

SEXUALITY ^{AND} CONCEPTION

BY

H. M. GOURRIER, M. D.,

De la Faculté de Paris; Membre de la Société des sciences physiques, chimiques et des arts industriels de Paris, des Sociétés scientifiques, agricoles et littéraires des Pyrénées-Orientales et des Bouches-du-Rhône; Membre des Jurys des concours et expositions régionales de France, Lauréat de la prime d'honneur régionale de l'Aude, Ex-médecin de la salubrité publique, etc.

Translated and Edited, with an Introductory and Notes,

BY

FRANKLIN DUANE PIERCE, M. D.,

SUPERINTENDENT OF THE UNION SPRINGS, N. Y., SANITARIUM.

UNION SPRINGS, N. Y.:

HYGEIA PUBLISHING COMPANY.


1886.



QP
G 716 r
1886

COPYRIGHT, BY
F. D. PIERCE, M. D.,
1886.

BAKER, JONES & CO., PRINTERS, BUFFALO, N. Y.



CONTENTS.

	PAGE.
Introductory, - - - - -	5

CHAPTER I.

Historical.—Opinions of Ancient Authors.—Opinions of Modern Authors, - - - - -	9
--	---

CHAPTER II.

The Laws of Sexuality and Conception, - - - - -	24
---	----

CHAPTER III.

Hermaphroditism.—Separation of the Sex and the Type.—The Resemblance.—The Trio, - - - - -	27
---	----

CHAPTER IV.

Causes and Effect of Woman's Condition, - - - - -	35
---	----

CHAPTER V.

The Foundation and the Form.—Corruptness, - - - - -	37
---	----

CHAPTER VI.

The Law of the Feeblest, - - - - -	38
------------------------------------	----

CHAPTER VII.

The Conditions of Conception, and Production of the Sexes, - - - - -	40
--	----

	PAGE.
CHAPTER VIII.	
Influence of Epidemics, of Peace and of War on Sexu- ality, - - - - -	46
CHAPTER IX.	
Comparisons, - - - - -	50
CHAPTER X.	
Refutations, - - - - -	56
CHAPTER XI.	
Necessity for Regulating the Marital Relations, - - -	70
CHAPTER XII.	
Reaction, - - - - -	78
CHAPTER XIII.	
Practical Application of the Foregoing Principles, -	86

INTRODUCTORY.

The subject of generation and sexuality has, as our author states, engaged the attention of thinking men from the earliest period of the world's history. The spirit of investigation seems to never tire. Man is not content with observing the results of certain phenomena ; he must fathom the causes, if possible, and bring them under his control.

The question, "How to Control Sex in Generation," is receiving to-day more attention than ever before, if a person may judge from the number of articles on the subject which have recently appeared in some of the leading medical journals and journals devoted to stock-breeding and to agriculture.

Among those in this country who have written most on the subject, and who have expressed original ideas, are Mr. D. D. Fiquet, a stock-breeder, of Houston, Texas, Mr. Thomas B.

Armitage, and Mr. Samuel Hough Terry, who has written a book, entitled "Controlling Sex in Generation."

These three gentlemen seem to have arrived at the same conclusion, independent of one another. They maintain that the sex is determined by the one that possesses, at the time of copulation, the strongest passion; that "the resulting sex is always the opposite of that in the more vigorously and healthfully passionate parent at the time of service performed," as Mr. Fiquet puts it.

Now, at least so far as the human family is concerned, facts contradict this hypothesis. Mr. Acton, Dr. Tilt, and other high medical authorities affirm that a "woman may be well-formed, happily married, and without any tangible imperfections of the sexual organs, and yet completely indifferent to connection," and conceive and bear fine children of both sexes. My own observations, extending over a period of more than ten years, during which I have treated a very large number of women for diseases peculiar to the sex, teach

me that many women possess no sexual passion, and that others, on account of a peculiar sensibility of the nerves supplying the vagina, a condition known as *vaginismus*, abhor the sexual embrace; and yet these same women become impregnated and bear male children.

Other things being equal, the most vigorous subject, the one having the greatest amount of vitality, would naturally possess the strongest passion, and, according to our author's theory, the sex of the offspring would be the opposite of that of the parent in whom such vigor and vitality are manifested.

Almost all the observations and statistics put forward by the three authors whom we have named in support of their views, only serve to confirm Dr. Gourrier's theory.

Dr. Gourrier frankly admits that his teachings may contain some minor errors, and they unquestionably do. Nevertheless, it seems to me that if, indeed, he has not actually solved the problem of the determining cause or causes of sex, he has come

nearer to it than any other author whom I have read; therefore, I deem his book worthy of translation and publication in America. If found by the test of experience to be correct, it will prove of incalculable benefit, not only in its application to the human family, but also to the lower animal species. It will revolutionize the breeding of domestic animals, adding millions to the world's wealth.

I desire to collect facts bearing upon the subject, and, therefore, will deem it a favor if those who put into practice the principles set forth by Dr. Gourrier will communicate to me the results of their experience, giving full details. Such communications, when they relate to the human species, will be held sacredly confidential.

It is hoped that the medical profession, stock-breeders and others will give the propositions advanced serious consideration before passing judgment upon the theory.

F. D. PIERCE, M. D.

UNION SPRINGS, N. Y., Nov. 2, 1886.

THE LAWS OF
GENERATION, SEXUALITY AND CONCEPTION.



CHAPTER I.

HISTORICAL.

Opinions of Ancient Authors.—Before expressing our views on such a delicate subject, we desire to go back and review ancient traditions, and to give, in a succinct and synthetical manner, the most salient theories of different authors on this subject, which has, from the earliest times, received the attention of great minds, which has been considered by men of original ideas and authority, those who have been the guides of the human race.

Among these, Hippocrates¹ and, afterwards, Avicenna, speaking like men who are convinced that they express the truth, have left us descriptions which show that in their time science was not in a very advanced state.

¹Hippocrates Œuvres complètes, édition Littré. Paris, 1839-1861.

The writings of Avicenna, nevertheless, although somewhat exaggerated concerning the influence of the female in determining the masculine sex, are, in the main, correct. This is the most remarkable and ingenious part of his work. It includes, it is true, some exaggerations and some things which are of no utility, but the main points are correct, and the author, by chance, stumbles upon the truth in his remarks concerning the female. When he comes to speak of man, however, his ideas are erroneous. The foundations of his theories are incorrect and false. For the sake of pleasing his readers, he makes an overdrawn picture of the procreative power of man, who is, according to him, predestined to procreate males.

Michel Procope¹ is no more correct in his hypotheses, which rest on the quality of the semen, according as it comes from the right or the left testicle.

Hufeland² has done justice to the subject by his zootomical experiments, from which, however, are not always drawn conclusions the most just and conformable to the truth.

Henke³ and Millot,⁴ bringing forward the supposi-

¹Procope Couteaux, *l'Art de faire des garçons*. Montpellier, 1770.

²Hufeland, *l'Art de prolonger la vie ou la macrobiotique*. New French Edition, by J. Pellagot. Paris, 1871, p. 398.

³Henke, *Ueber die Entwickelungskrankheiten*. Nuremberg, 1814.

⁴Millot, *l'Art de procréer les sexes à volonté*. Third Edition. Paris, 1802.

tions of Procope, relative to the formation of the sex by the ovaries, right or left, have both seen their theories annihilated by anatomical investigations.

The illustrious De Graaf,¹ who, by his anatomical dissections, has done so much for the advancement of science, is himself equally in error on this subject, in both his deductions and applications.

The authors of later times, in their investigations of this subject, confined themselves to the seminal fluid and the spermatozoa.

Harvey² believed that seminal fluid was secreted in the uterus of the female, where it became transformed into an ovum on coming in contact with the spermatozoa of the male.

Buffon maintained that the ovaries were simply female testicles, and that they secreted a fluid which was analogous to the semen of the male; that the sexes depended on the greater or lesser quantity of this secretion poured out by the male or the female during the act of copulation. Such theories only serve to envelop the subject in darkness. This illustrious *savant*, who, according to reports which we have received, in the case of infinitesimally small organisms, admitted the theory of spontaneous generation, and denied that they produce ova, would have preferred quietly to see science retrograde rather than to

¹De Graaf, Opera omnia: De virorum et mulierum organis generationi inservientibus. Amsterdam, 1678.

²Harvey, Exercitationes de generatione animalium. 1680.

have renounced his theory of organic animalcules, by which he sought to explain all the phenomena of nature.

Ackermann¹ maintained that, at the beginning of gestation, the embryo was neither male nor female, and he attributed the determining cause of the sex to the centre or place in which the embryo is developed.

Knox and Weber affirmed that the embryo, at the beginning of its development, is hermaphrodite.

Aristotle, Saint Thomas² and Tiedemann believed that all beings were primitively females, or unfinished males.

Opinions of Modern Authors.—All these theories have had their time. To-day the most advanced doctrines are based upon extended observations and careful scientific experiments, yet they do not express the latest views on this science. The majority of authorities believe with Pouchet,³ Robin,⁴ Coste and

¹ Ackermann, Ueber die körperliche Verschiedenheit des Mannes vom Weibe. Frankfort, 1788.

² *Femina, per respectum ad naturam particularem est aliquid deficiens, et occasionatum quia virtus activa quæ est in semine maris, intendit producere simile perfectum masculinum sexum. Sed quod femina generatur, hoc est propter virtutis activæ debilitatem, vel propter aliquam materiæ indispositionem, vel etiam propter aliquam transmutationem ab intrinseco, etc.*

³ F. A. Pouchet, *Théorie positive de l'ovulation spontanée*. Paris, 1847.

⁴ Ch. Robin, *Dict. de médecine*, 13th edition. Paris, 1873. Art. *Génération et Ovulation*.

many others, that the human female produces ova which are thrown off every month, during the period of menstruation, from the age of puberty to the *menopause*, or change of life, and that this production of ova is independent of any intercourse with the male ; that in the case of the lower animals, ova are produced and discharged at intervals coincident with the periods of sexual excitement termed *heat* ; that before the age at which ovulation commences, the ova exist in the ovaries in a latent state ; that in traversing the sexual organs and during its evolution, the ovum undergoes certain modifications, that is to say, it reaches a greater or lesser degree of maturity ; that the female can be impregnated only when the ovum has not passed beyond a certain degree of maturity, at the moment when it comes in contact with the spermatozoa.

According to certain authors, especially Warner, Schirac and Huber, the degree of maturity which the ovum has reached when it encounters the spermatozoa is the sole determining cause of the sex. These authors, relying on experiments made with bees, maintain that the ovum, as it comes from the ovary, is neither male nor female ; that the place in which it is developed has absolutely no influence in determining the sex ; that the identity of the two sexes, during the first part of embryonic life, as authenticated by numerous observations, and particularly by those of Auten-

rieth, Tiedemann, Ackermann, Meckel, Serres¹ and others, does not in reality exist ; that such identity is only apparent, and that the sex is formed while the embryo is yet a mere speck ; that the sex depends entirely upon the degree of maturity which the ovum possesses at the moment when it encounters the spermatozoa ; that an imperfectly ripe ovum produces a female, and one which has attained perfect development, or which is fully matured, produces a male. Here error and truth go hand in hand. If narrow views exist anywhere, they certainly do in this last hypothesis, which would leave to chance approaches towards the solution of one of the greatest and most magnificent problems of humanity.

For years past, repeated experiments have been made with a view of verifying the above theories. Thury² of Geneva, Cornez and others, have made experiments with cattle, and Coste with fowls, which have been attended with diverse results. They tend, however, to prove conclusively that the sex obtained during the first part of heat is more frequently female, while that resulting from sexual congress near the end of that period is more frequently male. These *savants* have, therefore, concluded that the degree of maturity which the ovum has attained at

¹Serres, *Anatomie comparée transcendante, principes d'embryogénie, de zoogénie et de tératologie.* Paris, 1859.

²Thury, *Mém. sur la production des sexes chez les animaux et l'homme.* Paris and Geneva, 1864.

the moment of fecundation is the sole determining cause of the sex ; that at the commencement of heat, the ovum, being imperfectly developed, can only produce females, whereas later, when it has acquired perfection, it produces males.

We have repeated the same experiments ourselves, and have obtained substantially the same results.

We have elsewhere remarked that the nearer the end of heat sexual congress takes place, the more apt is conception to result, and that disappointment is certain, or, in other words, that fecundation does not take place, when the sexes are brought together after the termination of heat ; but, as will be seen further on, we are far from arriving at the same conclusions as our predecessors, or from being willing to make the same statements regarding the laws of generation and sexuality. Even though the results of our experiments have been the same, in the interpretations, deductions, and teachings, we differ greatly ; also in the methods of practice. However, we do not wish to deny but that their theory may contain something which points towards a solution of the problem. Our love of truth compels us to make great concessions.

The practical instructions of Thury for obtaining at will animals of either sex are contained in six propositions. It is evident that great uncertainty exists in the fourth and sixth. We will quote them :
" 4th.—When many ova are successively detached from the ovary during the same period of ovulation (in

multiparous and oviparous animals in general), the first ova are generally less developed, and produce females; the last are more ripe, and produce males (bees and cocks); but, if a second period of ovulation succeeds the first, or if the surroundings are considerably changed, the last ova may not be able to attain a superior degree of maturity, and, consequently, they too may produce females."

"6th.—It is plain that a person cannot be certain of obtaining a definite sex when the signs of heat (in large mammifera) are vague or equivocal, as is frequently the case with animals confined in close quarters, but not with those that are free to roam."

In spite of the bad diction, a person can understand very nearly what the author desires to say. Could anything be more vague?

Coste, nevertheless, desired to verify the assertions of Thury, and, to this end, conducted a series of experiments on fowls. In these, however, he failed, but he has not ventured to express himself conscientiously on any point, and he has had reason to act as he has. His experiments, nevertheless, did lead him to affirm that, during the passage of the ovum through the oviduct, there finally comes a time when the ovum loses the property of receiving the impregnation from the male, and remains sterile.

This important observation has a close connection with those which we have made ourselves, in the mammifera, and it would have much more value, if it were

not true that a single impregnation is sufficient to fecundate many ova of different sexes.

Be this as it may, Dr. Warner, relying on the experiments of Cornez and Thury, argues that, to be conclusive, the experiments of Coste should have been conducted with animals of the same species, and that, without this circumstance, a person is not apt to be able to judge correctly. But, if a person cannot reason from cattle to fowls, or reciprocally, on what ground can a person reason from bees to the mammifera? Dr. Warner reasons from bees and cattle to the human species, not seeming to be conscious of the fact that he himself is begging the question.

According to him, the sex depends upon the degree of maturity of the ovum at the moment of its impregnation by the male; and the human ovum produces a female when it is fecundated at the commencement of the menstrual period, inasmuch as a female is the product of an imperfect ovum; and that the human ovum produces a male when it is fecundated at the end of this period, inasmuch as the masculine sex is derived from a human ovum fecundated after it has reached a state of maturity and perfection.¹

After having laid down this law, the author states that his rules for the procreation of either sex at will contain some apparent exceptions. It is discovered,

¹ "La femme, moins parfaite que l'homme, dans sa nature physique et morale, dérive donc d'un œuf incomplètement mûr." Dr. Warner.

says he, in seeking for their causes, that many influences, and notably the *physical state of the parents* at the time of sexual congress, modify the law announced. It is to these modifications, says he, that many authors have attributed the determining causes of the sexes, thus confounding the accessory with the principal. He further states that a study of the causes of these modifications leads him to this conclusion, that the exceptions in the theory are only apparent, and that this is a confirmation of the correctness of it. Such a conclusion, which no one but the author could have foreseen, seems to us almost equivalent to the abandonment or the denial of the principle itself, as we will explain hereafter.

According to Boudin,¹ the sex is influenced by the age of the parents, by their physical state, and by the seasons and the climates. According to him, old men have more boys than girls; and the feminine sex predominates when the mother is more aged than the father; and the two sexes tend to preserve an equilibrium in their productions when the parents are of about the same age.

The husband, in France, generally being older than the wife, a person is apt to conclude with Boudin and

¹Boudin, De l'influence de l'âge relatif des parents sur le sexe des enfants. (Gaz. méd. de Paris, 1863, et Comptes-rendus de l'Acad. des sciences, 23 fév., 1863.)

Hofacker,¹ that the influence of age in determining the sex is demonstrated by the fact alone that, in France, more boys than girls are born.

This is, to a certain extent, true, but it does not afford a complete solution of the problem.

The statements of Dr. Lucas² relative to the influence of age on fecundity, when they do not relate to the determination of sex, but simply to the greater or lesser energy of each sex at different ages, are strictly correct throughout the entire animal kingdom.

Sadler of England and Hofacker of Germany have concluded, from the official registers, that the age of the parents has a marked influence in determining the sex. Statistics of this kind are apt to cause confusion and give rise to uncertainties in the minds of investigators, and cause them to arrive at erroneous conclusions. Such statistics, however, although of no great assistance, are not entirely destitute of value, but they are of only partial application, and, therefore, they should not serve as the basis for any theory. It is well known with what art it is possible to group figures in favor of some preconceived opinion or hypothesis. They may be so arranged that they will only prove that which their author desires to draw from them. Thus far, statistics have proved but one

¹Hofacker, Ueber die eigenschaften welche sich bei menschen und thieren auf die Nachkommen vererben. Tübingen, 1828.

²Lucas, *Traité physiologique et philosophique de l'hérédité naturelle*. Paris, 1847-1850.

fact, which is that there is a constant numerical predomination of the male sex, at all times and in all places.

[Recent statistics show that in France, England, Germany, Austria, the United States and in most other countries, there is, taking the entire population, an excess of females, notwithstanding the fact that more boys than girls are born. This is due to the lower death-rate of the female sex.

The census of 1871 in Italy showed that there was a distinct excess of males for the first fifteen years of life, that after that age the excess was on the side of the females, and very decidedly so between the ages of nineteen and twenty-one, and that between the ages of thirty-one and seventy-one, the excess was again, for the most part, on the side of the males.¹ —F. D. P.]

The method pointed out by Girou,² the distinguished *savant* and agriculturist, for obtaining either sex at will, has no better foundation than the other theories we have narrated. His experiments were made with herds. According to him, each of the sexes is more apt to transmit its own attributes than those of the opposite sex; in other words, the male produces the masculine sex, and the female the feminine sex.

¹Encyclopædia Britannica, Ninth Edition, vol. xiii, p. 449.

²Girou de Buzareingues, *De la Génération*. Paris, 1828.

Dr. Lucas, in combating this theory, brings forward one that is equally erroneous, and which very closely resembles the very one which he attempts to overthrow. According to him, the sex that possesses the least vitality, or strength, permits the other to confer its attributes on the offspring.

This author, who, by the way, is not the only one to contribute to science from his imagination, would have expressed the truth, had he confined his remarks to the type, or if he had simply maintained that the type the most accentuated or the most constant is the one chosen to furnish the type. Authors have always thus confounded the sex and the type. We will return to this very important subject further on.

Let us enquire whether Girou comes any nearer the truth in the statement which he puts forth: "Moderation in sexual intercourse is one of the most essential conditions by which each sex guards its character."

It is very evident that the sex does not depend upon moderation in sexual congress, although this is unquestionably good in itself, and essential for the preservation of health, and, therefore, has an indirect influence in the determination of sex. The influence of this element cannot be denied, since the health of the parents has an important bearing on generation and sexuality, as will be shown later.

No experiments on the human species have been attempted, so far as we know, by these same individuals, with a view of solving this important problem,

Experiments of this kind would be so difficult, and the different elements which a person would be obliged to take into account are so complicated, that the conclusions which might be drawn from them would, necessarily, be indefinite and inexact.

The best plan, therefore, is to observe carefully the productions of nature, and draw from them our deductions. If this course were pursued, each one would be able, and of himself and according to his sphere, to arrive at more or less definite ideas, without having recourse to the theories of others.

We have now reviewed the most salient opinions of authors on the subject of the sexes, and, almost without any exceptions, we have found their teachings full of errors and uncertainties. Nevertheless, all the authors whom we have cited, as well as those to whom we shall refer hereafter, are honest, especially those named in the first part of this chapter. They have made attempts to arrive at definite conclusions, and have searched diligently for the truth, but they have continually gravitated around the goal. They have evinced a strong desire for theories which were pleasing to their fertile imaginations.

A narration and examination of all these theories would require several volumes. We would, however, willingly devote our time to the task, if such work would cause any light to be thrown upon the subject, or if it would cause science to advance a single step; but they are so in opposition to our views that

we fear such a work would be of little value to the reader.

The determining cause of the sexes has been sought for almost everywhere, but chiefly where it does not exist, as in the winds, the seasons, and even in the phases of the moon. It is true that these have only been regarded as general or predisposing causes.

According to Virey,¹ summer is favorable for the generation of males, and winter for females. Bailly believed absolutely the opposite, while Riecke maintained that the most favorable months for the creation of males were the months of May, October, November and December. Fourier demonstrated the fallaciousness of such views, and Warner coincided with him, but expressed himself less decidedly.

The ancients attributed to the winds a certain influence. They maintained that the winds and heat of the equatorial regions enervated the vital faculties, and rendered males incapable of reproducing their sex so frequently as in the north. This speculation was carefully investigated by a multitude of authors: by Pliny, Columelle and Elien, all of whom learned it from the writings of Aristotle, who got it from the traditions of the Greeks.

Venette, Virey and Demangeon² also obtained their

¹Virey, *Philosophie de l'histoire ou des phénomènes de l'organisation des animaux et des végétaux*. Paris, 1835.

²Demangeon, *Anthropogénèse ou génération de l'homme*. Paris, 1829.

knowledge from the same source, according to Dr. Lucas.

Without stopping to narrate these diverse speculations, the discussion of which would require much time and space, and which do not really merit much attention, we shall proceed to examine and describe the conjugal relations and conception, and to arrive at a knowledge of the laws which govern the creation of animate beings.

CHAPTER II.

The Laws of Sexuality and Conception.—In the beginning, we shall give some definitions.

What is a natural law?

It is a fixed, invariable, immutable principle, which renders an account of all natural phenomena, and permits of no exceptions.

There is but one natural law. It would be impossible to have many, for the reason that what is true in one case is equally true in all cases. This law is therefore universal.

The universal law is that harmony or concert of action which exists throughout all the elements of nature, all concurring to the same end.

Universal harmony cannot exist except there be a perfect equilibrium among the elements of nature.

Nature cannot come to or maintain an equilibrium except she unceasingly obeys the necessities under which she finds herself placed, whether in a state of health or in a state of disease.

Her course is governed by the need which is the most imperious ; upon it depends her choice.

Nature invariably pursues the two following ends :

1st. The conservation of the subject.

2d. The propagation of the species.

These two aims constitute two great forces. They are our two most dominant passions. The first is designated the instinct of self-preservation, and consists of that excessive care which we take of life, that longing to live which even amounts to a desire for immortality. The second is the powerful reproductive instinct.

These two forces are intimately connected. They react on each other, because they are in a state of constant antagonism. At a certain period of life the second overbalances the first.

The propagation of the species may be resolved into the sex and the type. During its period of domination, the reproductive instinct sways the entire organism.

The object of this instinct is to call into action the generative organs, for the purpose of maintaining an equilibrium, in order to prevent any interruption in the chain of living beings.

The mission of nature is, therefore, either to look after the maintenance of her subjects, or after their numerical increase, in proportion to the fertility and resources of the earth, and to provide for replacing them in proportion to the extent of their extinction.

What subjects is there most urgent need of replacing? From a conjugal point of view, which of the sexes, in the natural order of things, is there most need of replacing?

It is the one that is the feeblest, the most debilitated, the one that is likely to live the shortest period, or, in other words, the sex in which vitality is the feeblest at the time of the copulative act.

Therefore, in generation, the sex is naturally determined by the subject whose individuality there is most need of preserving. It is this one that furnishes the necessary elements for the continuation of the work of nature; this one that fixes the sex.

In the vegetable kingdom, nature acts likewise under the influence of the same law. The conservation of the subject and the propagation of the species guide her in all her operations. She provides for the replacing of unhealthy and unpromising subjects by an increase in their productions. Thus a diseased tree which is about to die is loaded with fruit beyond measure. Everybody knows that the natural means for the reproduction of vegetables are found in the organs of fructification, and that a person may prolong the life of an annual vegetable

by pruning off the floral organs in proportion to the extent of their number.

In like manner, in the animal kingdom, life may be prolonged and the health preserved by proper management of the generative functions.

Behold the diseased oak, loaded with an immense crop of acorns! Look at the poor consumptive, burdened with a large family, unfortunately a victim of a hereditary disease!

The law of nature is implacable, and punishes the children for the faults of their fathers.

CHAPTER III.

When there is, at the moment of conception, a perfect equilibrium in the forces and vital resources of the male and female, the sex is determined by the existing need for the replacement of the branch which in general possesses the least vitality.

It is in such cases that the sex may most easily be produced at will.

It is a favorable indication to see nature obliged to go back to preceding generations in search of symptoms of feebleness, not being able to find in the husband or wife the necessary elements for a continuation of her work.

Hermaphrodisism.—The question whether it is possible to restore physiological harmony and fertility in an individual in whom the development of the generative organs simulates that of the opposite sex, must be answered in the negative.

It is evident, at first sight, that, strictly speaking, there exists no such thing as hermaphrodisism, that is to say complete; that it is only apparent, on the exterior, and not real. All authorities agree that a complete hermaphrodite does not exist.

The cause of hermaphrodisism, and of monstrosities in general, is to be found in an arrest or local excess of development, in the dispositions of matter at an early period of embryonic life.

Complete hermaphrodisism is impossible in the human species, because of the symmetry of the generative organs, and on account of the osseous formation of the pelvis. In a word, there is no place for it. Such a condition would be a great deformity, a degeneration which would approach the lower orders of organisms. The distinct separation of the sex, even in vegetables, is a mark of their height in the scale, and of their splendor.

The congenital infecundity or sterility of the mule is due to an arrest of development, or a deviation from or the partial or complete destruction of physiological harmony in one of the organs of generation.

The workers among bees are sterile, from the fact that during the period of incubation their ovaries are

compressed, and thereby prevented from acquiring a perfect state of development.

[The development of the ovaries, and consequently the fertility, of the female bees, is supposed to depend upon the kind of food they receive while in the larva state, the young larva which is to develop into a queen being supplied with a peculiar kind of food, which appears to be more stimulating than that supplied to the larvæ which is to develop into workers or into drones.¹—F. D. P.]

Separation of the Sex and the Type.—It is, from what we have seen, very evident that, if there is a perfect equilibrium in the vital resources, it is not possible to have a fusion of the sexes, but, on the contrary, only a fusion of the types.

Under this condition, the female ceases to be, at least momentarily, conservative of the type of her race, notwithstanding that such is ordinarily her prerogative, and it is proper that it should be, on account of the important rôle which she plays in generation.

This relative disposition in the type is even produced when the male possesses a very accentuated type, and one which has acquired constancy. In order that this constancy of the female may be modified and rooted out, it is necessary that she meet with a constancy of type still more pronounced than her own.

¹ Article on the Bee, by John Hunter, in *Encyclopædia Britannica*, Ninth Edition.

A person should not lose sight of the fact that it is the type, and not the sex, which is concerned here, points which it is important should not be confounded, but which frequently have been. There is an enormous difference between the type and the sex.

The sex and the type are independent of each other, so that the type of the product of the same impregnation may be derived from the parent that is the strongest, and the sex from the one that is the feeblest.

The vigor and strength of the subject is dependent upon the type, which borrows from whatever source it can. It requires labor to effect a modification of the type, but, in time, a person may obtain almost any type desired. The experience of breeders of domestic animals gives sufficient proof of this fact. Those animals possessing the most accentuated, the strongest, and the most constant types are the ones that prescribe the type of the offspring.

In this connection, it is well to bear in mind that the first impregnation is of great importance, from the fact that it may influence the entire ovary, or only many ova, so that the types of subsequent offspring may at times feel the influence of an anterior sexual meeting. Thus all impregnations have not the same importance, as the posthumous types testify.

[In man and in animals, the embryo, as is well known, exerts in its turn a wonderful influence on the

mother. Stock breeders know that if a pure-bred female is once mated with a male of another breed, she can never thereafter be depended upon to breed true.—F. D. P.]

This is an extraordinary application to the human species, of a faculty which is very common in species lower situated in the animal kingdom.

With regard to the sex, like cannot produce like. Nature is not the mistress of it, for she cannot control the coming together of the sexes, nor the circumstances under which such meetings take place.

Here hygiene may exercise a decided influence, and, indeed, it does.

The sex of the embryo is forced and absolute, inasmuch as, from a general point of view, whether of humanity or of creation, it is a matter of management.

It is through the sex that nature provides for the propagation of the species, through it that she assures an equilibrium in the production and number of her subjects.

To sum up, the sex and the type are the administrators of humanity. The one is mobile, the other is fixed. The one obeys the law of the stronger, the other the law of the feebler; and each acts for the greatest profit of all—for general harmony.

We have theoretically divided the mode of action of the typical and sexual powers solely for the purpose of rendering the comprehension and demonstration of their mechanism more easy.

In nature, however, there is generally a harmonious blending of the elements which, for facility of demonstration, we have represented as separated.

Both the sex and the type may most assuredly be furnished by the same individual, when nature finds in the individual the necessary elements; or, separately, the sex by one and the type by the other, as we have before stated. This fixation is the result of a choice, and the choice is quickly made, for in nature there is no indecision.

Nature has her laws, and she is governed by them. The sex and the type of her subjects are the two cords which she causes to vibrate, and it is through them that she obtains infinite varieties and shades.

These depend upon the more or less intimate or favorable union which takes place between the sexes, whether it be the result of accident, of selection, of magnetism, of family alliances, but above all, they depend upon the relative state of health of the husband and wife, or the male and female.

The types are improved or degraded, according to the circumstances, but the sexes are, necessarily, unchangeable. In consanguineous marriages, for example, the types become greatly changed, and ultimately die out, because there is no affinity in the sexual magnetism, or electricity, because the spermatic fluid, or the *aura seminalis*, is not attracted by the ovaries. Such marriages are, therefore, very unproductive.

When the male and female are unlike each other in

temperament, there is, on the contrary, a great development of sexual magnetism, or electricity, and the attraction is very strong.

What inferences are to be drawn from this? Practically, the only conclusion to which a person can arrive is that it is not proper to always sow in the same earth.

It is the same with most vegetables, with those in which crossing is necessary.¹

The Resemblance.—The sex has nothing to do with the aggregate of characteristic qualities in the offspring; they are under the influence of and dependent upon the type. [Thus a son may, and frequently does, resemble the mother in figure, looks, actions and in other characteristics.—F. D. P.] Nothing is more variable or more mobile than the resemblance.

The Trio.—There is a class of people that we shall designate and describe under the head or title of *the trio*. They are the consumptive, the syphilitic and the rickety. There is a great tendency among this class of people to reproduce themselves.

The question arises, what is the cause of this salacity? Its cause may be found in the great law of generation, which impels every individual to provide for his replacement, especially when he is afflicted with a vice which threatens his destruction, or which leads to degeneration of the species.

¹Sachs, Scott, Hildebrand, Sprengel, Darwin, etc.

This propensity for sexual indulgence and this continual tendency to reproduction, besides producing great prostration and debility, are signs of bad omen, and symptoms of most greivous augury to those in whom they are presented. A person should not lose patience with those who manifest such a weakness, or envy a person this exaggeration of his reproductive power, inasmuch as it is generally the sad portion of a people the days of whom are numbered. It is not without a motive or grave reason that nature seems to be so pressed to reproduce these people.

The old man naturally occupies himself more in looking after the preservation of his health, and the prolongation of his life than in other matters. After having provided, during the prime of life, for his replacement, this object becomes to him, to a certain degree, a matter of secondary importance. At this period of life, the instinct of self-preservation is strongest. The love of children gives way, in a measure, to self-love, and the future of the family is left to his children.

What a sublime law is this, which little by little disengages the thoughts of man from terrestrial objects, and from the occupations of life, in order that his attention may be directed towards the great hereafter !

CHAPTER IV.

Statistical researches, with reference to the predomination of the sexes, have forced us to the conclusion that there are actually very nearly as many females as males in the human family. There may, however, be a difference of six per cent. in favor of the masculine sex, if we include the entire country. [See page 20.]

This predomination of the male sex is extremely significant, because it is in itself evidence that the masculine sex is the one which is the most essential for universal harmony, and for the development of the resources of the earth. Furthermore, it proves that such a predomination is the most easily obtained and maintained, for it is maintained in spite of wars, and is produced in spite of all kinds of abuses, abuses which cause us to blush with shame, and the existence of which we greatly deplore, abuses by which the woman is enfeebled, by which the production of the feminine sex is enforced, and by which the harmony of nature is bent out of its natural course.

Notwithstanding these abuses, there is still, as we have said, a predomination of the male sex, but this predomination would have been much greater to-day than it is but for marital excesses and abuses, and the diseases which are directly or indirectly the consequences of them, and which affect the woman more

than the man; and but for the law of generation, which provides for the replacement of the feeblest sex first.

The health and life of woman are sacrificed to luxury and to sensual pleasures. Unfortunately, she has to bear the heft of the burden, and suffer the pains which are the result of such sins. Nature is severe with her, inasmuch as *she* can never escape; she is always the most engaged. This is hard, but it is a true and serious fact; such is the decree of marriage. This is why the proportion of women is to-day so great.

Now, the precarious condition of woman, as regards health, and, consequently, of the population generally, is the result, in part, of the non-observance of proper hygienic conditions preceding and during pregnancy, and of sexual abuses. On account of such abuses, only inferior subjects and defective types are produced. We become aborted in physique and in intellect. Furthermore, the number of births is diminished on account of practices which are opposed to normal conception.

Notwithstanding all this, an equilibrium is maintained, but it is maintained artificially, with pain, and in a vitiated atmosphere, where it languishes.

We live in an age of diseases of the womb.

CHAPTER V.

In everything there exist what are called the foundation and the form, and in man there is no exception to this rule.

The temperaments have undergone notable modifications, from the foundation or base, particularly during the last third of a century, and the therapist has, consequently, been obliged to modify his practice correspondingly.

In France, the importance of the form has generally been overestimated, and too much has been sacrificed in its behalf.

The more we have realized our corruptness, the more have we desired to conceal our state. The discussion of such subjects shocks us, and, consequently, our hypocritical puritanism has led us to attempt to conceal our true condition and to polish over the surface.

In the beginning, the earth was warm and fertile, but less cultivated and less populous than to-day. People lived to be very old, and the women were strong, healthy and fruitful, and the world felt the effect of it.

To-day the earth has become cool and less fertile, notwithstanding that it is better cultivated and more populous. The people are puny, and, like the ancient Romans, are becoming more and more corrupt. One

fever of enjoyment and luxury follows closely after another, and abuses and debauchery exist on every hand, recruiting in number as time goes on. The vices and the viruses are less profound than formerly, but they have gained in extent what they have lost in intensity.

Although man of the present time has not so powerful a physique as his forefathers, yet the mean of human life has, through the aid of science, been lengthened.

CHAPTER VI.

Can the equilibrium in the number of living beings on the earth be affected?

Undoubtedly it may be, by the quality and quantity of products of all kinds, by improvements in agriculture, and by the regeneration of the people.

Observation and experience teach us that by variation and selection, between the healthy and diseased, we can force nature and compel her to produce. In order to do this, it is necessary to exercise care, and to enfeeble nature in order to force her to react. Without this there can be no other result but failure. Nature has but one method of operation, just as she has but a single law; all her elements work in unison.

She leaves nothing to chance or abandonment ; likewise she does not escape from the influence of the surroundings in which she is placed. There are no causes, with her, be they apparently ever so insignificant, which do not show their influence in her human productions, and with very great consequences.

In considering the subject, it will be advantageous to divide the menstrual period, in the imagination, into two unequal parts. During the first, the woman suffers, is enfeebled, impressionable, and sometimes ill. During the second part, the uterine function, on the other hand, being established and regulated and the pain having ceased, health returns and gains the upper hand, and the equilibrium is re-established. This part, which is the longer and more particularly the time during which reaction and ovulation take place, is always more favorable than the first.

To this cause is due the predomination of the male sex, and it will, obviously, always depend upon it, provided that this disposition forms an integral part of the law of equilibrium, and that, in nature, equilibrium is the indispensable condition for reproduction, indispensable for life and its regular functions, and for everything. The excess of male births is partially due to the fact that sexual congress, interrupted temporarily during the first part of the menstrual period, is more frequently resumed near the end of this period, when the wife has regained her strength.

If the wife could always be strong and perfectly

well at the time of the copulative act, and thus have the advantage over the husband, there would be a great excess in the number of male births. A vigorous woman produces boys, when, at the time of copulation, her vigor or her vitality exceeds that of her husband; then it is he that is replaced. If, from being vigorous, she should become very plethoric, she will generally abort a male embryo.

The sex of the child is irrefragable proof of the relative debility or vitality of its parents, or of the need which existed for the replacement of the branch which furnished it. It proves that its side of the human edifice, at the time it was begotten, was in need of succor and reparation. The subject in whom vitality is feeblest at the moment of the copulative act, therefore, is the one that determines the sex of the embryo, in order that an equilibrium may be maintained.

This is the law of conception, the law of the feeblest; an equilibrium is maintained by following this common law.

CHAPTER VII.

The Conditions of Conception and Production of the Sexes.—In the present state of knowledge, to maintain that a person is absolute director,

and can produce either sex at will, is an exaggerated pretension. This would be equivalent to maintaining that a person is above nature ; that he is sovereign of his health, while, in reality, we are very far from it, for health and disease often depend upon causes which escape us, of which we are ignorant, and of which, consequently, we are unable to become the masters.

It is, nevertheless, a very conspicuous fact that health and disease have a very notable influence on the progress of natural phenomena, and, consequently, on the fixation and the natural or artificial determination of sex, and, therefore, they are the most frequent arbiters.

Health and disease are the administrators of the sexes as much as the sexes and the types are the administrators of humanity.

What do we understand by the terms *force* and *feebleness* ?

When viewed from the point of temperament, and from the point of health and generation, force or power consists not, as in mechanics, in the power to raise in a certain period of time a certain weight to a certain height. If force, resistance, vitality and power were understood or taken in this sense, they would most assuredly conduct investigators to the grossest errors in diagnosis.

The first comer is not apt to interpret the work of a great master, and by what strange privilege, and why, therefore, would the first comer, without study or experience, be more apt to interpret the work of

nature? In order to interpret the work of nature, it is necessary to take cognizance of a certain *force*, and it is especially necessary to place no trust in superficial researches and opinions, which more frequently lead to error than to truth. An error of prognostication, even though it is not a grave one, and does not compromise a good cause, nevertheless lowers, more or less, that to which it relates.

The actual physical force or power of man, however puny he may be, is still generally superior to that of woman; but the power of health, of vitality and of reaction, or, in other words, the resistance to disease and death, does not reside solely in exterior appearances or form. It does not consist in the ability to stuff a stomach of vast proportions with indifferent alimentary substances without becoming sick; but it consists in the harmonious performance of the functions of all the vital organs.

To the small body of woman, life is not less thoroughly riveted. Woman's resistance to pain and her vitality are generally greater than man's. The general predomination of the male sex is due again to this cause.

Woman sustains pain better than man. Pain is the lot of woman, and she cannot escape it, for she is the seed-bearer; *quia fructus ventris sui*, for she is charged with the bearing of the offspring.

The fresh and unimpaired state of the generative organs of the newly-married wife ordinarily gives her

a marked advantage over the husband, that is, when she has been wise and he has not. It is necessary that he should recover from the effects of past indiscretion, and in the meantime posterity feels the effect.

In regard to the sex of the embryo, let us consider the propositions presented.

1st. The power of fixing the sex is absolute.

2d. It is directly on account of the need of replacement, and is the inverse of the vitality of the parent that furnishes it.

3d. The sex of the embryo is fixed at the moment the ovum is fecundated.

The vitality of the offspring is relative, and depends upon the parents, on their sex, their age, and their physical condition; and it varies among all classes of people, depending upon their surroundings and habits of life.

It is evident, therefore, that the obtainment of a particular sex at will is a difficult matter, and that, in order to be successful in such an undertaking, certain preparations are necessary.

It is much easier to explain theoretically an event already accomplished than it is to produce or predict the same.

In order to obtain, in general, a greater number of males than females, *a normal thing*, good health of the wife is the condition necessary, as debility or emaciation of the husband is the complementary condition.

It is on account of the health of the young mother, and the fresh and unimpaired state of her generative organs, that the first child is often male, while the second, on the contrary, is often female, because of the enfeeblement occasioned by gestation and the preceding lactation. Under these circumstances, if the health of the mother has not been re-established, or if the male is not debilitated, the second child is generally female.

It is very rare that the husband does not, at some period after marriage, fully regain his vigor and strength, for on the nuptial couch he finds calmness and repose for his enervated body.

It is while in a state of disease and suffering, and during convalescence from acute diseases, and during the first part of the menstrual period, that a woman is most liable to conceive, and that the conditions are found in her which are most favorable for her replacement, for the production of a child of her own sex.

It is in such states as we have described that nature feels the most urgent need of replacing the suffering being, and that the greatest efforts are made to perpetuate her kind by calling into existence a new being, with a view of maintaining an equilibrium.

"In sorrow thou shalt bring forth children," says Genesis. Pain is the condition of child-birth, as debility is the condition of conception, and as the greatest relative debility is the condition of the sex.

It is necessary to imitate nature, so far as is possi-

ble, and to meet her. In medicine we endeavor to do this.

Among the lower animals, when a female is rebellious to conception, she is bled at the time she is put with the male, for the purpose of enfeebling her or lowering her vitality, and thus forcing her to become fruitful. The majority of stock-raisers do not neglect this, and the pioneers practice it with confidence, but without, as a rule, keeping records of the results.

It is well known that luxuriant and exalted vegetation is opposed to fruitfulness; but that if some of the roots of an over-vigorous tree are cut, it immediately reacts and becomes fruitful. The practice of retrenching during foliage arose from this. It is the imposing of such obstacles in the way of nature, a torture, so to speak, against which she is forced to react, that causes her to again become productive. It is likewise for the purpose of obstructing the development of the foliaceous system that watering is suspended during the blooming period, in order to cause a speedy recurrence of blooming.

It is well to think of the conservation of the subject, after a person has assured the propagation of the species. With the vegetable, such a course is doubly profitable, since, after the blooming period, the two ends may be pursued conjointly.

From the plant are obtained, through art, very numerous varieties of magnificent flowers, but, as is well known, they are unproductive. A plant blooms

more frequently when it is given a space entirely to itself in a pot.

In high culture, a slender, sickly plant produces seed of good quality, and is very productive. It desires to attach itself to a future life, it clings to this, it reacts, and on this depends its immortality.

Marriage is the result of the high culture of humanity. By it the human productions are regulated.

Life, in general, is but the result of the balancing of the two forces or instincts of which we have spoken; the conservation of the subject and the propagation of the species. The latter has more to do with it than the former, and much greater sacrifices are made in its behalf. It is important that it should be well directed.

CHAPTER VIII.

Influence of Epidemics, Peace and War on the Sexes.—What is, from a war point of view, the importance of the male sex? We put this question that we may answer it.

From a governmental and political point of view, and from the point of view of courage, of strength, and of defense of the home and the country, the male is of very great numerical importance, as will be seen later.

What influence have epidemics, wars and armies on sexuality?

By epidemics, nature quickly suppresses all diseased and rotten subjects, without regard to sex; or, what is equivalent, forces them to strengthen themselves and react.

In order to comprehend the results and the mechanism of this combination of natural influences, it is necessary to examine what takes place. The needs exceed the natural resources, nature discharges herself of an incommodious and very heavy burden; she immediately re-enters into a numerical equilibrium in the most expeditious manner, by the rapid suppression of feeble subjects, by extinguishing those in whom the tendency to reproduce themselves is greatest. Thus she acts in absolutely the inverse sense of our poor axiom, *non bis in idem*.

She effects the weeding out of the poor plants, to the end that she may give the air and the nourishment they would require to the good. She acts through disease, by arrest or modification of the conditions of existence. Such is her method. Death is the final arrest, and disease is the condition next to it.

War, on the other hand, forcibly carries away from nature many of her most beautiful, youngest and strongest subjects, at the period of their greatest procreative power. War suppresses, for a time, the procreative functions of many of the most vigorous male

subjects, of those who undoubtedly reproduce their own sex with most difficulty.

The question arises, is this really an evil?

In order that we may ascertain, let us examine the inverse situation and see what happens. Female births and libertinism are the result. Is this a benefit? Most assuredly, no.

We are not among those who deny the intrinsic value of woman, her moral value; very far from it. We know her influence on the morals of the family, and we know that it is on her lap that are formed the most excellent of all objects on earth, an honest man and an honest woman, the greatest of all the masterpieces of the Creator. We are not of those who think her breasts ought to serve adults more than nurslings.

After war and military service, after all kinds of abuses, the man, mutilated, enfeebled, enervated and sick, reproduces his own sex most easily, while, during peace, man is in better health, takes better care of himself, and, everything being equal, reproduces his sex with most difficulty.

[After the great "Thirty Years' War" in Europe, there was an overwhelming predomination of male births.—F. D. P.]

War is a necessary evil, it is the general law, it is the law of the world; these are the strongest reasons in its favor. From a material point of view, it is the strongest that reigns and domineers. No such thing as equality exists in nature.

Among animals there is no more equality than elsewhere. The strongest oppress and destroy the feeblest. Sometimes, however, the combatant suffers and succumbs himself. Such is often the fate of those that belong to the brotherhood of Cain. Notwithstanding this, the general harmony is not affected by such trifles, for such is the natural order of things.

In the vegetable kingdom, the same law exists, the same influence, and the same operations. The strongest domineers, stifles and destroys the feeblest, draws nourishment from its detritus, and warms itself in its sun. The light overspreads it, and harmony reigns again on the debris of death!

By enfeebling the man, war favors the creation of the male sex. This is some compensation, for it brings about a return to an equilibrium in numbers, and, in this respect, is a benefit rather than an evil.

Peace, through the sexual abuses and fatigue to which woman is subjected, favors a surplus of female births, and this is an evil instead of a benefit.

The law of the feeblest comes in to effect a counterpoise here; this is the imperious, universal, absolute law; this is the reaction.

Nothing in nature can escape this law.

The vegetable suffers from the cold, because it is fixed in the soil; and, on account of this, it is endowed with the power of resistance, and this is sufficient.

The animal possesses certain advantages over the

plant; the instinct of self-preservation, and the power of locomotion, but, after all, these are small.

Man seems to be privileged above the lower animals, inasmuch as he possesses the power of thought, judgment and reason, of which, as you know, he often makes use.

CHAPTER IX.

Comparisons.—From nature's point of view, the male is therefore of very great importance. The fecundation of the ovum is his principal rôle.

Homo totus semen est, says Fernel.

Nature has distributed seed everywhere, in order to offset the numerous causes of its waste, and the male organs, the incapacities of which are, although more frequent than they should be, very rare, have been multiplied, with a view to the continuity of the work of nature, and in order to avoid any gaps.

Each sex has its relative and unconditioned importance, and may be considered from many points of view.

Let us take our examples, or rather, in order not to wound the feelings of any one, let us take our points of comparison from what are called the inferior species. As a beacon, a ship's light sometimes serves to guide a person's steps on land. Here such a comparison will not lead us astray.

We have seen that, in vegetables, the male organs are endowed with extraordinary development, and that, in this kingdom, the seed is often diffused in great quantities. This is because the plant is fixed to the earth, and the seed must sometimes be transported a long distance by the wind before it is in a position to accomplish its purpose.

In the animal kingdom, with bees for example, since we have already spoken of them, the queen or the mother is surrounded with a numerous court, and, at the appropriate time, she may choose from a thousand husbands. She darts along through the air, and fecundation is effected by a single male, and, after this operation, and for a year, all the males are mercilessly sacrificed for the general good. They all fall, without any exception, massacred on the threshold of the hive.

Why this massacre?

The reigning one orders it. But what causes her to think of such an act? This phenomenon is not the result of chance. Most assuredly it is not an exceptional act, for it has occurred regularly since the creation, and is perpetuated in the consummation.

In this republic, people hound one another. They imitate the bees, to some extent, in their civil quarrels; but with the bees the measure is a radical one.

In mammiferous animals, the seed is managed with great care; none of it is wasted. A severe law is the law of rut, a law that the female never permits

the male to transgress, one that is opposed to wasteful dissemination. The anatomy of the sexual organs and the disposition of the sphincter muscles come to the aid of the female, and she utilizes them.

Why does nature act thus?

Because she made life or creation her sole aim, and she pursues this course that she may overcome all obstacles. In order to accomplish her purpose no sacrifice is too dear. She knows how to overturn all obstacles to attain her end.

On account of its importance, the seed is, at a certain period, the object of all her solicitude; but, as soon as it becomes of no use, or a nuisance to her, she courageously suppresses the source of it. This is economy of force and of machinery.

With the ovine species, two or three rams to a flock of one hundred and forty ewes are amply sufficient to fecundate the entire number; yet, in the births of the lambs, a person often obtains more males than females. Shepherds emasculate ninety-eight out of a hundred of those that they raise by castrating them.

Why is this done?

Because, if all the males were permitted to grow up un mutilated or undeprived of their procreative power, there would be many destructive combats between them, which would imperil the interests of the cause, and another effect would be a greater number of female births.

The lot of these animals, therefore, resembles, to a

slight extent, the fate of the male bees, of which we have spoken ; only the bees live in a state of freedom, and proceed of their own accord to the retrenchment of those that are of no use, the drones.

With cattle, a single bull is sufficient for twenty cows, and yet in the births there are more males than females. These animals live a sequestered life, and man is the absolute master of their products. If the number of cows to a bull were greatly diminished, then there would be an excess in the number of females born.

With fowls, one cock suffices for twelve hens, and one drake for three ducks, but in their productions a person often finds more males than females ; while pigeons and guinea-fowls, which live together in pairs, produce very nearly an equal number of the two sexes.

Everything, therefore, is relative to its end and its utility, and everything has been created and put into equilibrium according to its destination. Nature, in order that she may thrive, has taken double precautions ; she has placed the remedy on the side of the evil.

It depends upon us whether or not this equilibrium is broken.

We will see later what happens.

The state of servitude of animals—in other words, the appropriation of animals to the needs and services of man—constitutes an element of wide range, and one which ought to be taken into great account in coupling them.

They have felt the regulation of their masters. Domestic animals have no other products than those which man permits or decides that they may have. His interest serves as the guide.

It is by the suppression of the passions, and through their rational retrenchment, that stock-breeders have effected important modifications in the frame-work of animals, in the development of their muscle, or in some of their attributes, so great in certain cases as to render them scarcely recognizable. Through such a course, their types have undergone a complete metamorphosis, by the exaggeration of certain parts of their bodies, or on account of the suppression of certain parts which were of comparatively no importance, so far as the breeders' interest is concerned.

How much wiser we are in the control of our passions!

Let us examine the subject that we may become convinced how we should conduct ourselves and control our actions in sexual matters for the greatest good of society and for our own true interests.

In agriculture, the seed which is sown is selected with great care from the very best, in order to insure a large and improved future production. In raising garden seeds, the very best specimens are selected from which to raise the seed. Likewise, in stock raising, the choicest animals are selected for breeders, and they are paired judiciously. When a person feels that he is not competent to do this, he consults others more experienced; he does not permit sexual excesses

among his animals; he supplies the breeders with appropriate food, and exercises great care, in order that he may be successful in obtaining beautiful types, in which he is not often disappointed.

This constitutes selection, the choosing of the choicest. *This is the regulation.*

Simply for a setting of eggs, poultry-breeders take a thousand precautions, as is well known; and to succeed in whatever it may be, even in the smaller operations, in things which are in themselves of the smallest importance, is it not necessary to make great efforts, to take great precautions, and to apply oneself closely?

Can it be said that as much pains are taken with our own poor species? Alas! no.

Such measures are good for oats and carrots, good for the mare; but for woman—fi!

How often is a person able to exclaim, oh! what a beautiful child! It is plainly to be seen that no pains have been spared in its behalf.

How many persons surround the wife with judicious care, and select the proper nourishment for her *before conception*, and supply her with the proper addition and such as is essential during pregnancy and while she suckles her child?

This is done for the mare, for the cow, and for the ewe, and the same course is practiced in fish culture. With animals, the female is nursed, cared for and respected of all others, but this is not the case with woman. She may get along as best she can.

Nations, are you not astonished that, after having pursued such a course, you have even yet some passable specimens of the *genus homo* among you?

It is with the production of man as with all other productions. There is no possible exception for him. When he deals with reproduction, he should not think that he can practice with impunity all sorts of abuses, without his offspring feeling the effect of it, both in the sex and in the type. To do this he would commit a great error.

CHAPTER X.

Some Refutations.—Of all the theories, either ancient or modern, which have been applied to the solution of the problem, two principles only have prevailed.

The first, without denying the influence which the relative ages of the parents, their health and their physical state may exercise in the determination or fixation of the sex, admits of no other solution than that the sex is derived from the most vigorous parent.

The second, on the other hand, without taking any account of the preceding elements, affirms that the sex of the embryo depends solely on the degree of maturity of the ovum at the moment of its fecundation. This view, which is assuredly the least rational, still possesses something specious.

We will proceed to examine these two hypotheses.

The practical application of these views has necessarily been attended with failure, but they have still been clung to for want of a better hypothesis. Modern authorities have not, however, evinced such a liking for mere theories as their predecessors, but, from force of habit, a person walks in the beaten tracks of others so easily that he seldom takes the trouble to go down to the bottom of things and investigate for himself. It is much easier to accept a ready-made opinion than it is to form a new one, or even correct the errors in others.

Let us examine the first hypothesis, that which has enjoyed, even to the present time, the happy privilege of governing, so to speak, the medical world and, indeed, the entire world.

According to it, a strong man and a feeble woman can only beget boys, so long as the man is robust and the woman is debilitated.

Now in most instances, just the opposite sex is produced. We do not maintain but that a strong man may beget boys; we only affirm that, united to a feeble wife, he could only beget them at a time when his vitality is low. We maintain that the force is more relative than absolute, and that the appreciation of this is a very difficult matter; and we especially assert that the stronger person contributes more to the type than to the sex.

If it were possible, henceforth from the present

time, for the sex to be furnished by the strongest subject, we would soon become a world of giants, by natural selection, or we would speedily become disorganized, for the accumulation of the stronger sex would cause us to run out after the second generation, and the equilibrium would be broken.

This is not possible ; the theory is not true.

In place of such a state of affairs, what do we really see ?

We behold a world of pygmies ; we see armies that are repeatedly obliged to lower the standard of size in order to recruit.

This proposition cannot, therefore, be maintained. It is surprising that it should have been advanced, inasmuch as the experience of every day emphatically contradicts it. If a person attempts to put it into practice, the results soon convince him of its absurdity.

Even though we are becoming pygmies, we should not attribute the cause of our degeneration to the law of the sexes ; it should be attributed to the defective management of our passions, to the *fault of the regulation*. Our abasement is, in a great measure, owing to severe labor before the proper age, to early marriages, and to all kinds of sexual abuses ; the law of the sexes has nothing to do with it. Such are our enemies. It is these that have altered, degraded and contracted our model, to use a figurative expression which was dear to Buffon.

Aristotle was of this same opinion. "Nothing," says he, "is more opposed to good generation than precocious marriages. Throughout the entire animal kingdom, the products obtained at the first awakening of the sexual propensities are invariably imperfect. The methods for obtaining dwarfed races of dogs consist in provoking precocity of the generative functions. It is the same with all animals ; it is the same in the human species ; precocious marriages result in the birth of a small race, which is without value."

It is on account of having neglected this great law that people of past ages went rapidly into a decadence. The most polished nations of antiquity, the Assyrians, the Greeks and the Romans fell into brutishness and slavery from the time that the fêtes of Venus caused the temples of the other gods to be deserted. Rome would have perished before the end of the republic, if foreigners had not continually filled the vacancies which her disorders created.

The same is to-day true of Paris, which has, with some exceptions, a feverish, enervated population, covetous of emotions at any price.

Modern Spain and northern Africa have recently furnished similar examples.

Again, Dr. Seraine¹ has recently attributed to similar causes the depopulation of the Sandwich Islands.

¹ Contributions à la géographie médicale ; 1^{re} station de l'océan Pacifique. (Archives de médecine Navale. Paris, 1864, Tom. II, p. 480.)

Do we feel that we ourselves are entirely undeserving of reproach in this regard? Is not Germany superior to France in this respect? The ancient Germans, whose physical development elicited the admiration of the other nations of Europe, never married before the twenty-fourth or twenty-fifth year; and, up to this age, they preserved the most rigid chastity. It was a disgrace for a young man to know a woman before this age.

It is therefore clear that it is not to the law of the sexes that a person should attribute our abasement, but to the law of the types—to ourselves.

We cannot change our sex, but we are continually affecting the harmony and the numerical predomination of the sexes, inasmuch as we are continually altering our types. If authors had attributed the same influence to the type that they have to the sex, they would have been in the right. But they have confounded two very different elements: the conservation of the subject and the propagation of the species; opposed forces, which are in a continual wrestle, and reacting on each other without cessation; they have not taken any account of this fact, or rather they have not thought of it; nevertheless, therein is where they have erred.

Nature has confounded nothing. She well foresaw what would occur, and caused the sex to be derived from the parent possessing the least vitality, and provided for the maintenance of an equilibrium and har-

mony through the type, which is furnished by the parent that is the strongest, by the race which is most constant.

It seemed to us that it would be doing a good work to dissipate this confusion, which has lasted for so long a time, and which has engendered a multitude of errors. It is this which we have sought to accomplish in our propositions relating to the sex and the type.

If a person considers humanity in a mass, he will be forced to recognize that it cannot escape the universal law ; that its entire circuit is but the repetition of what each of us is individually suffered to become acquainted with ; infancy, mature age, old age, and death.

It was thus that Fourier viewed the spheres ; the growth, the pause, the decline, and the fall.

Such is the law. It is by the succession of diverse elements that we live, and it is impossible for us to escape them.

Let us now examine the theory of the graduated maturation of the human ovum. It is based on a unique remark ; that of the coincidence of male births from sexual congress taking place towards the end of heat, in the mammalia.

With regard to this, stock-breeders have tried a series of experiments, and as these experiments have been followed with a certain appearance of success, they have hastened to conclude that the sex of the embryo

depends solely on the greater or lesser degree of maturity of the ovum at the time of impregnation.

The alluring prospect of being able to produce either sex at will, exciting the imaginations of innovators, has readily triumphed, through feebleness of judgment; and the sophism, *post hoc, ergo propter hoc*, has erected a doctrine out of their arguments.

Yet after having proclaimed, in a very positive manner, the infallibility of their dogma, as is natural for those of speculative minds, these same authorities have, nevertheless, advised that in practice certain precautions be taken against it. In opposition to their own theory, they have prescribed, to be associated with the course which they have laid down, a strengthening regimen for the husband and a debilitating for the wife, or reciprocally, according as a person desires a son or a daughter.

Let us briefly examine the mechanism of the unfecundated ovum. At first the ovum exists as a germ, and, from birth up to the age of puberty, it develops progressively in and with the ovary. From this epoch up to the menopause or change of life, the function of the ovaries is to ripen and throw off ova. Every month these organs furnish one ovum, rarely more. The ovum, having reached a certain degree of maturity, is detached from the ovary. The commencement of menstruation is an indication of its separation. The congested condition of the pelvic organs favors its detachment. The trumpet-shaped

extremity of the fallopian tube embracing the ovary creates for it a passage-way. Following this, it descends and enters the womb. The discharge of blood coming on opportunely, favors and facilitates its transport and passage to the outside of the body. This constitutes what might be termed a small monthly delivery, which is not always free from pain.

If sexual congress takes place during its passage, or even from the time that the trumpet-shaped fallopian tube applies itself to the ovary, the ovum may be fecundated. It then usually ingrafts itself on some point of the womb; its evolution ceases, and with it the sanious discharge is arrested.

But these events do not always pass with this simplicity. The ovum, whether fecundated or not, may continue on its passage and be discharged. Carried along by the sanguineous flow and by gravity, it continues to descend; it soon passes beyond the points where it might successfully attach itself, and, whether fecundated or not, whether inert or living matter, falls outside the womb, and is sacrificed. This does not imply but that it may have attained a greater or lesser degree of maturity. There are thousands of millions in this category.

The ovum is not always detached from the ovary at the commencement of the menstrual period. Diverse causes may retard or impede its separation. If the cause is trifling, the act of menstruation is not notably deranged, but, when it is more grave, dys-

menorrhœa or amenorrhœa occurs, and the discharge of the ovum does not take place, for it is not matured.

It is easy to understand how a great shaking-up of the economy may more or less affect all the functions. It is thus that the serous and mucous secretions are modified, the urine and the perspiration influenced, the hair tarnished and arrested in its growth, and the nails depressed. The ovarian function cannot escape such influences; it suffers the fate of the other physiological functions; a modification, retardation, arrest, or exaggeration.

Imperfections, deformities, or feebleness of the ovum, although rare, usually result in the loss of the ovarian product, without any one being conscious of it.

The ovarian cell possesses, from the commencement, a vitality and an activity which are proper for it, and which continue up to the time of fecundation, an epoch at which the ovum is ripe or has arrived at the maximum of its morphological complexity.

When fecundation does not take place, the ripe ovum is not able to longer draw from its own forces the elements necessary to enable it to prolong its life. It decays, dies and disintegrates, after having passed through a primordial existence.

Such is the ordinary course of things. This does not imply but that the ovum may become ripened and perfected outside the ovary, but only that it has to run the risk of a multitude of accidents after its detachment from this organ.

The evolution of the human ovum is effected in a variable time, which exceeds a little the menstrual period. It is rare that it takes place in the interval between the menstrual flow, yet such a phenomenon may occur exceptionally, from excessive sexual excitement.

Ordinarily, when the ovum is detached, when the fallopian tubes are not obliterated, when menstruation is well established in the woman, when the spermatic fluid, accompanied with sexual magnetism or electricity, the *aura seminalis* as it has been called, can enter into communication with the ovum, fecundation takes place, and sex and life are simultaneously established. The concurrence of all these circumstances is necessary.

[It is very evident that a variety of causes may prevent conception. So far as the female is concerned, anything which prevents the entrance of the seminal fluid of the male into the womb or that destroys its vitality, anything which prevents the production of a healthy ovum, or its passage through the fallopian tube, or its attachment to the wall of the womb, may cause sterility. Fortunately, many of the conditions which cause sterility may be removed by appropriate treatment.—F. D. P.]

Two effects are ordinarily the outcome of sexual congress: first, the impregnation of one or several ova; secondly, the fecundation of the ovum which at the time has attained its maximum or morphological

development. Impregnation and fecundation are, therefore, two distinct effects. The first does not necessarily carry with it the second. It only affects the type, and not the sex, of the future product. The sex can be fixed only at the moment of the perpetration of the act, because it has for its end or function the numerical administration and equilibrium of the animal kingdom.

Fecundation requires the impregnation of the ovum in a state of complete maturity ; that this ovum may not have been previously impregnated, or, in other words, that its type may not have been influenced before.

Let us suppose that the ovum is ripe and nearly ready to die and disintegrate, and that it has become detached from the ovary. The male element, in the last stage of its existence, having worked its way up through the womb and into the fallopian tube, encounters it. In the conflict between these two bodies, each of which is animated with a different form of electricity, in the shock of these two opposite elements, the energy of which is exhausted, and both of which are destined to perish, there results, by virtue of the electrical attraction, a new body, endowed in the highest degree with the faculty of a new evolution, inasmuch as it is the germ of a complete organism which proceeds to enter into life. Here the vital spark springs into existence.

But how have sex and life penetrated this matter? How has the spirit or soul instantaneously taken pos-

session of it? This is a mystery which man will never penetrate. Is it a misfortune? Would it be an advantage to us to know how the vital spark is kindled, and to have the power given us to transgress the divine laws?

From what we know, it is from this date that embryonic life begins; but life is not always maintained, for the impregnated ovum does not always encounter the necessary conditions for a continuation of its development, and then pregnancy ceases.

In such cases, there is an arrest of development of the entire embryo, just as in the case of hermaphroditism or monstrosities there is a local arrest or exaggeration of development of an organ or part of the body; just as there is an arrest of development in fruit when the trees are so loaded that it dries up and falls.

It is in this as in all other kingdoms, with all vegetables and with all animals.

With fowls, the eggs are fecundated before they are layed. In the case of fish, the eggs are deposited in the herbage or along the shore, and from this moment they are perfect and ripe; nothing is lacking. The male, in passing over them, leaves his vivifying train, and the eggs are fecundated by thousands, a single male being sufficient.

From the moment of fecundation all beings become animated, and all are provided with sexes; all live, but all do not thrive until they reach adult age, for all are not able to meet with the conditions necessary for a continuance of life, especially inasmuch as

nothing is so fragile as life at its commencement; and finally because, if such a condition did not exist, there would soon be a great excess of the species; they would be stunted in size, and, in a word, harmony would be broken up. This is sufficient reason.

A tree may be full of blossoms, all its buds opening out, and all of its ovaries may be fecundated by the pollen, and yet all its fruit may not hold fast, for there would be much too great a quantity for the tree to nourish, and it would therefore be very small. Hence nature makes retrenchments, by an arrest of development, through modifications of the circumstances and conditions of existence. A tree that is heavily laden rests the following year and recruits itself.

If a person makes a hole in the ground in the midst of a field, water collects in it. Soon reeds and frogs appear there, without there being any necessity for their existence. But, just as soon as the heat of the sun has caused the evaporation of the water, which is the condition essential for the continuation of their life, they suddenly disappear.

Such is the mechanism of life and production; such are the phenomena of sexuality and generation.

This causes us to sometimes dream regarding the origin of the theory of spontaneous generation, which, in spite of all efforts, attempts to retrieve itself, wherever propitious circumstances are encountered.¹

¹Drouyn de Lhuys. Congrès international. Montpellier, October, 1874.

This digression has conducted us some distance from the discussion of the theory which attributes the sex to the degree of maturity which the ovum has attained when it encounters the male element. We have explained the difference in the health of woman during the different phases of her natural periods, and the consequences. We should learn not to accept such theories, and thus avoid the evil consequences which follow their adoption. Multiple births of different sexes, resulting from one and the same impregnation, are alone proof of the falsity of this theory.

We cannot avoid being shocked when we hear it said by educated men that a few hours' difference in the time at which impregnation is effected is alone sufficient to determine the sex, without that influence of the parents which is so real and natural, and without that admirable harmony of which we are but the wheel works.

To say that woman can only be bred from an *imperfect* ovum, while her organs furnish an ovum sufficiently perfect for the creation of a male being!

An imperfect ovum for woman! In the eyes of nature, what imperfection does it possess? It is not inferior, except it has faults which are common in both sexes.

Prove, if you can, how it is possible for the ovum to ripen and perfect itself without the ovary. Prove in what respect one hen's egg is less perfect than another.

A simple affirmation should not take the place of proofs ; and, so far as we know, no one has yet shown the veritable cause of natural selection, or the true reason for the predomination of one sex.

In these days people are more exacting. They desire to know the why, and, with thinking people, to be able to sometimes say, *post hoc, ergo propter hoc*, is not sufficient.

The cause precedes the effect, without doubt, but it is necessary to know it, in order to discern it, and this is something which is beyond our power.

CHAPTER XI.

Necessity for Regulating the Marital Relations

—The uterine function holds a very important place in the life of woman ; and everything that relates to the generative functions has an important bearing on her health.

As a rule, women do not bear a sufficient number of children. The womb and breasts do not perform sufficient work, and this is a great evil. Inertia and inactivity favor the development of disease. The organs are created for service ; to serve moderately, of course. Perfect repose is injurious to them. The health is affected by their inactivity as well as by opposite excesses.

This is why hygienic conditions and the proper regulation of conjugal affairs are, especially to woman, of such paramount importance. She cannot hope to enjoy health unless she gives attention to such matters.

[It has been truthfully said that the destiny of our nation depends upon the future mothers of the country.

Physical degeneracy of the female sex is, to-day, very apparent in America, and it is largely the result of inattention to hygiene. Doubtless two-thirds of all the diseases peculiar to women might be prevented by a judicious system of education, by proper attention to the menstrual function, by a correct understanding and observance of the duties of married life, and by careful management of pregnancy, parturition and lactation.

Both girls and women, especially those residing in towns and cities, take too little out-door exercise. They should do more walking, riding, rowing and swimming. It is not necessary that they engage in lofty climbing and high jumping, but they should carry out some such system of muscular movements as is practiced in gymnasia.

The system of mental "cramming" which is, in this country, practiced to such an extent with girls among the middle and upper classes of society, is another fertile source of disease. By such a course, the nervous system is developed at the expense of the

muscular, and a morbid impressibility and a tendency to diseases of the reproductive organs are produced.

The wearing of clothing that is so tight as to impede the movements of the chest, interfering with normal respiration; that constricts the waist, causing displacement of the abdominal and pelvic viscera; or that does not afford sufficient protection against the effects of our changeable climate, is a frequent cause of ovarian and uterine disease.

Insufficient food, by impoverishing the blood, and the use of improper food, constitute important elements in the causation of disease. If the girls and women of America subsisted less on pies, highly seasoned puddings, cake, warm biscuit and pickles, one cause which militates against their physical well-being would be removed.

Reckless care of the person during menstruation is another prolific cause of disease. Knowing that menstruation is a natural function, some women will not consent to any physical restraint during such periods, and those who experience pain will not consult a physician, supposing that, it being a natural function, they must necessarily bear the pain. At such times, cold drinks, long walks, excitement, fatigue, and exposure to draughts or to cold and wet, should be avoided. If the flow is too scanty, too profuse, too frequent, or is attended with pain, the advice of a competent medical man should be sought, and followed.

Measures employed for the prevention of concep-

tion and to force abortion are, I regret to say, among the most frequent causes of the diseases of women in this country. If women were taught that they cannot defraud nature with impunity, that they cannot transgress her laws without paying a severe penalty, that such practices are attended with great danger, that life begins with conception, and that whoever induces an abortion *destroys life*, destroys what is, in potentiality, a human being, it seems to me that such sins would be less frequent. The evil is, as Prof. Thomas states,¹ rapidly assuming such proportions that, if not eradicated, it must affect the future population of the United States.

Imprudence after abortion or after child-birth is another frequent source of disease in women. After expulsion of the contents of the womb, its tissues undergo a fatty degeneration, and the organ gradually returns to its former size. After labor at full term, this process of *involution*, as it is called, requires about six weeks' time, and too early exertion, or anything which interferes with it, is attended with risk.—
F. D. P.]

“The general rule, deducted from extensive observation among all people, teaches us,” says Richerand, “that the reproduction of the species is for woman the most important object of life; that it is almost the only destination to which nature seems to have called

¹ A Practical Treatise on the Diseases of Women. Fifth Edition, p. 50.

her, and the only duty which she is expected to perform for the benefit of human society; that everything which removes her from this primitive destination is to her disadvantage, inasmuch as her entire physical organization evidently relates to this end."

All that woman contributes toward the happiness of man, outside of her true function, is supplementary thereto.

The fertility of woman is developed by reason of her needs of replacement. When her vitality is low, her fecundity is greatest.

This is far from being disadvantageous to her. It is simply and wholly the effect of reaction. It is the balancing of the powers, or the re-establishment of the equilibrium.

Women naturally sterile are generally strong and robust.

We have seen that the physiological service and utility of the female sex only appertain to the mould, the type and the bearing of offspring, and that, consequently, her importance is relative; while from all other points of view, whether from a worldly point of view, from that of the distribution of seed, from that of strength, from that of war, from that of hard labor, from that of the development of the resources of the earth, from that of equilibrium and harmony, it is the male sex that ought to predominate.

Everywhere the male rules. To him belongs the genius and the power. Nature guides him, and indi-

cates to him, in spite of his errors, the path which he ought to follow.

Observation teaches us that if woman were stronger, more robust, better constituted, and, above all, better cared for, the proportion of female births would be sensibly diminished; and that it is through these conditions that a proper equilibrium might be re-established.

The necessity for it is so imperious and its results are so important that a person ought to be willing to devote his energy and means in its favor. Woman merits such treatment. We are very far from doing as we should by her. The most important act of our lives is left to chance.

Instead of the equilibrium in the number of the sexes being due to the vigor of woman, the numerical predomination of the masculine sex is solely owing to the comparative feebleness and to the misconduct of man.

The good or the ill health of woman, and, consequently, the more or less normal predomination of the sexes, depend largely on the good or the bad management of the marital relations.

Is it known what takes place when the proportion of males is greatly in excess of the females?

Yes, we have described what takes place; nature responds by an increase in the number of female births.

Will physiologists explain to us why and how this phenomenon is produced?

As for ourselves, we can find but one answer, which

is that it is necessary that the equilibrium be re-established. We do not see how any one can arrive at any other conclusion.

It is our earnest desire that these views may be taught the guides of the human race, throughout all nations.

Let us not lose sight of the fact that we should labor without relaxation for the health of woman. That her health is the condition indispensable for our success, and for a return to the natural equilibrium or proportion of the two sexes.

As such a result is a matter of very great importance from practical and moral points of view, and is of very wide range, it is plain that efforts undertaken for the attainment of this end are worthy of the most serious attention.

Since it is at the precise moment of impregnation that the sex of the embryo is determined or fixed, it is easy to conclude that, in order to be prepared or fitted for this decisive moment, it is necessary to make some preparation for it in advance, by attention to hygiene, etc.

It is evident that nature wills only universal harmony; that it is the need for an equilibrium of her forces that solicits her; that it is the need for the replacement of her subjects that she consults; and that, in her solicitude, she looks after the replacement of the being that is the feeblest, the one that she is in greatest danger of losing, the one that contains in

germ, or included in its organism, the cause of its end, *it matters not which sex it may be* ; that the sex desired can be most easily obtained when there is a perfect equilibrium between both of the spouses and the influences which directly affect them; and that, in case of a marked predominance in one of the spouses, it would be almost useless to struggle against it, with a view of obtaining the sex of the one in whom such predominance is manifested. It would certainly be reprehensible to resort to rash measures. Such a course would be an outrage on health.

In the mating of the sexes, there are limits which ought not to be overstepped.

[“Although a preventive of uterine disease, marriage may, nevertheless, produce it in various ways if not judiciously ordered. Marriage should not be contracted either too early or too late in life ; by too early, I mean before twenty-one, until which time the female system has not acquired its full development, nor the bones their perfect solidity. I have traced the influence of early marriage in many cases of uterine and inflammatory affections ; and there will be also greater chance of miscarriages when the processes of reproduction are confided to immature organs. Indeed, it is not uncommon for women married at seventeen to begin by several miscarriages, and only to bear children on attaining the age at which it would have been prudent for them to marry.”—Dr. Tilt.¹]

¹Handbook of Uterine Therapeutics. Fourth Edition, p. 291.

CHAPTER XII.

Reaction.—In the preceding chapters, which we submit to the serious consideration of all thinking and educated persons, awaiting their judgment, we have described the conditions of conception and the determining cause of the sexes, and we have shown how, in spite of disturbing influences, they maintain a predomination and an equilibrium.

The subjects which we have treated of have seemed very simple, though in one sense grave. A person cannot avoid recognizing, in the law which we have formulated, very nearly the truth, although it may contain some minor errors. On the carrying out of this work depends the prosperity or the decadence of humanity.

The degeneration of the human race is to-day real, evident, palpable, and awful to contemplate.

If we take a retrospective glance, we are unable to conceal our astonishment when we think that so many centuries have elapsed, and that so many savants have successively tried experiments and wasted their energies, in attempting to discover the truth, without attaining their object.

We are especially surprised that some authors could have possessed so much wisdom in matters pertaining to zoology, and have shown so little discernment, but

lack of reason and discipline is concentrated in human affairs.

To what cause can this be attributed?

Is it not attributable to arrogance, to the blindness of our passions? Is it not to egotism that we ought to attribute our past and present errors, errors which are of extreme gravity, since they have conducted us to a condition the sad consequences of which we suffer every day?

Without entering into further details regarding conclusions which appear so clearly on nearly every page of this little treatise, we shall return to the main subjects of our discourse. A person should never ramble away from principles.

We will here take up the points which are of importance. It is necessary to once more have recourse to definitions.

What is reaction?

What is conception, and what is the object of it?

What do we understand by the term sex?

How does nature work out her creations?

Reaction is the crisis by which nature makes an effort to prevent the death of her subjects, or to perpetuate life by the creation of new beings.

Conception is the transmission of life. It may be defined as the result of a vital operation which copulation effects, and from which the human ovum takes on sex and life in the womb and becomes individualized.

Its end has been defined as the reproduction of the types, in order that there may be no break in the chain of living beings, in order that the equilibrium may be maintained.

From a general point of view, the sex may be considered, first, as the means provided for reproduction; secondly, as the instrument of the reaction of life against death, through transmission to the embryo. It is through sex that life continues, is perpetuated and transmitted.

From a moral point of view, it is the sex which makes the being, and which gives individuality. It is through the sex and free will, well or badly managed, that the adult goes through the world doing good or evil.

Take away from a subject the sex, and you at once efface marriage from the life of the individual, and one of the great ends and pleasures of earthly existence; you change the sentiments, the heart, the love, and take away the poetry; you weaken free will, and you diminish the value of the subject to society; you affect the mind and the religion, for the great force, or power, of religion is found in merit and love well placed.

When you suppress passion, you annihilate the counterpoise, and thus disturb the equilibrium.

What then will remain? There will remain matter, fiber and the frame-work; but not one of these is created to exist alone by itself; concert of all the constit-

uent parts of the subject is necessary for reaction and harmony.

The sex is, therefore, indispensable to the subject. It is the means and the intermedium of the most beautiful, the most noble and the most magnificent of the reactions of nature.

Nature effects the selection of the sex through a reaction against the relative feebleness of the parent that transmits it.

Without any exception, nature operates everywhere through reaction, in order to preserve an equilibrium. This is the only resource which she has, but it is sufficient. She is invariably successful in the struggles which take place within the organism.

Reaction precedes us, follows us, and accompanies us at all times and in all places. We live only through it, for the mechanism of life is but a long succession of reactions. We are very near death when we are not capable of reacting. Reaction serves us under all circumstances.

Medicine is a science which teaches us to utilize the power of reaction as a means of cure. Revulsive measures, such as counter-irritation and stimulation, are employed solely with a view of bringing about vital reaction, of awakening the vitality taken in its entirety. Such means solicit the revolt of the organism, a revolution of the vital principle, an effort against the deleterious influences that are working against it.

Reaction makes an appeal to the organism not to compromise too much. The power of reaction reveals itself throughout animated nature, and even in inanimate bodies. Thus, in chemistry, the creation of different products is effected through reaction. In physics, reaction is revealed in electricity, light, heat, motion, etc. In physiology, sleep is a reaction against fatigue or the state of wakefulness, and perspiration against heat.

In affections of the mind, reaction takes place in the heart, in the brain, in the sentiments, and in the passions. The tears which flow, and the cry brought forth by joy, by fright, or by pain, are the effects of reaction.

The squalling of the new-born infant is the result of a reaction against the first effects of exterior influences. It is the effect of the abrupt change of conditions.

It is through reaction that conception effects cures of certain womb and ovarian disorders.

This is the way nature endeavors to re-establish the equilibrium.

The wealthy portion of society is not the most fruitful, or prolific. Nothing is demanded of the organism, for it is well satisfied.

In therapeutics, it is through reaction that an arrest of disease and a return to health, and to an equilibrium of the vital forces, is effected.

In pathology, inflammation and the morbid prod-

ucts are the result of reaction and of the work of nature, which endeavors to effect a cure.

In metaphysics, in oratory, in politics, and in everything, indeed, we behold the effects of reaction. At times we seek reaction, and provoke it.

It is often through reaction that truth triumphs over error; it is through it that opposition raises itself into power; through it that great oratorical efforts and the triumphs of eloquence are generally effected.

If the nineteenth century is the age of womb diseases, the twentieth will be the age of reaction.

A beautiful discovery! say you? Yes, a new application, beautiful and altogether modern.

Do you wish to know the secret of increasing human activity, and why man of the nineteenth century accomplishes and invents ten times more than man of preceding centuries? It is because beneath his feet certainty is established; it is because his works are based upon a solid foundation.

To-day every new science is quickly established, from the fact that it is aided by the facts observed and accumulated in the collateral sciences, and because, figuratively speaking, it soon works the sand and other material into solid rock.

“Kick vigorously with the foot, and fear not, for the immovable rock of truth rests here!”

From the spark that you have caused to rise, you may soon see legions of workmen and soldiers spring up!

But let us not anticipate. Let us leave this glowing ground, to reply to a question which is more closely connected to the subject of our discourse.

What would occur, if all at once by a sudden change, by one of those happy and unexpected chances, men, forgetting traditions and losing the memory of their insane abuses, should return to reason, and to sound practice in sexual matters?

The response is not ambiguous. *The health of woman would be immediately ameliorated.* As a consequence, the number of male births would be notably augmented. With more favorable conditions, the human race would be constituted on a better foundation; a proper numerical equilibrium would be re-established by the increased general health and vigor, and we would thus march progressively and rapidly onward to the complete restoration of the human frame-work, to a regeneration of the species, to a reconstruction of the temperaments, and to general harmony and prosperity.

To this end every person may contribute, and contribute largely.

Such is the object of this work, as will appear clear to the reader of the first two chapters.

Practically, we agree in all efforts, and we put the question of this unforeseen possibility, because it does not appear to us impossible.

It may be said by some that heretofore and now, just as we are, we are in equilibrium, in harmony,

and in prosperity. Is it not affirmed that everything is for the best in this world?

In reality, everything is relative.

To be sure, we have been heretofore, and are now, in a state of equilibrium, for without an equilibrium there can be only chaos and annihilation. Therefore, such as we are we live, but we do not live as we should. *Est peior modus vivendi*, it is the last shift. It is an equilibrium maintained with suffering; it is not the normal state.

Ought a person to be contented with such a condition of affairs? To be sure, it is an equilibrium, but it is an equilibrium of anxiety, on account of the constant struggle of the sick and diseased against the strong and the well; it is not harmony.

It is an equilibrium with disease against health, against strength, against life, against reason, and against nature.

It is a combination of physical and moral marasmi; it is not a normal condition.

There will be revealed to us in the near future, if it please the Creator, a brighter and a more prosperous horizon.

CHAPTER XIII.

Practical Application of the Foregoing Principles.—In this, the concluding chapter, we will describe the methods to be pursued in putting into practice the principles which we have advanced. We shall say all that appears to us of practical value on this interesting subject.

The law is one of seizing simplicity, but the practical application of it requires great precautions.

What is the object or end of marriage? is the first question which presents itself.

This is apparently a strange question, and a very simple one, but it is one to which, however, a person does not always find a ready response.

From the physician's point of view, and from that of those persons whose positions oblige them to look on the moral side of marriage, the practical, material, physiological, and religious end of marriage is the transmission of life or reproduction.

For the sake of convenience, we will divide the spouses into two categories.

The first comprises the indifferent or imprudent, an ungrateful class, possessing but little intelligence. We desire to dismiss this category from further consideration at once.

The second category of spouses includes all those who attach, and with reason, in our opinion, an im-

portance, often a very great importance, to the choice of the sexes. It is chiefly through this class that we must look for a return of the great current of life from past errors, and for a reparation, if it be possible.

It is for this class that we write.

This category may be divided into the following classes : a strong husband and a feeble wife who desire a girl ; a feeble husband and a strong wife who desire a boy ; those who possess an equal amount of vitality.

In these cases, what takes place ? In the first two, leave nature to do the work, and she will meet the wishes of the spouses, for she never cheats herself.

In the third case, which is also sufficiently simple, it is necessary to slightly enfeeble on the one side and fortify or strengthen on the other. It is necessary to enfeeble that spouse whose sex is desired ; it is necessary to diminish the vitality of this one, and increase that of the other, and the result will then be certain.

If marked symptoms of debility exist on the side of the sex that is desired, this sex will be produced naturally, without any effort being made.

If, on the contrary, the same amount of vitality exists in both, the result wished for may be obtained by slightly enfeebling that spouse whose sex is desired. Nature then becomes refractory, and reacts. Such is the principle.

As for the practical application, it is a delicate and difficult matter, and its direction should be intrusted

to a skillful person. The advice of a learned physician who has had experience in this field of practice should be sought. It would be unwise and very imprudent for a person to attempt to treat himself without any medical guide.

To make a prognosis without treatment is an exceedingly difficult matter.

Nature never deceives herself, but her interpreters are often deceived. It is much easier to explain an accomplished fact than it is to produce or predict the same.

It should be well understood that, if a person attempts to treat himself, there should be no intercourse between the husband and wife during the entire period of treatment, under penalty of failure to attain the desired result.

There are some people who cannot bear such a course without making many complaints. Simple abstinence from sexual indulgence for a brief period of time seems to be of no benefit; and this is all that most people do.

Later we will return to this subject again. We will now describe in detail the methods to be pursued to *temporarily* strengthen or enfeeble the vitality. We will give as explicit directions as it is possible to give in a book regarding the courses to be adopted.

When it is only necessary to give the economy a blow of the rod, so to speak, and not to bring about decided and lasting modifications of the physical condition, the

following means, which may be found recommended by various authors for obtaining a result the inverse of ours and the inverse of that of nature, may be employed.

Strengthening Regimen.—During the two or three weeks which precede the sexual meeting which it is intended should beget offspring, the food should consist of substantial articles of diet, such as rich soups, good wine, beefsteak, mutton, venison, small game, and, in fact, all the meats. Fruits may be taken sparingly in summer. Eggs and fish may also be taken with advantage. It is not necessary to exclude vegetables from the bill of fare, but a person should see that they agree with the individual.

It is not necessary in all cases to follow this regimen too exclusively, or to carry the tonic treatment so far as to exceed the end in view. By such a course the digestive organs would be irritated and congested, and digestion deranged; the object would not be attained; the result would be the inverse of that desired.

Debilitating Regimen.—This is the most essential. This is the course most frequently adopted, because it is the feebler subject that reacts, the feebler parent that determines the sex.

The food should consist of thin soups, white meats, such as veal, chicken and lamb; mucilaginous articles of diet, such as corn starch and pastries; also vegetables and, in summer, fruits. For drink, in addi-

tion to water, weak tea may be taken with the meals.

If a person desires to attain a still greater degree of debility, it is necessary to restrict the diet, to perform manual labor, and to bathe frequently in warm water.

Then, finally, if this course does not suffice, aperient drinks should be taken, and the exercise of the body should be carried to fatigue.

[A similar course may be adopted with horses, cattle and other domestic animals, and, indeed, has been by Mr. Armitage and Mr. Fiquet, with results which tend to prove the correctness of Dr. Gourrier's theory. The former states that when he desired to obtain a filly from "a mare of wonderful vitality," he "shut off her hard feed, softened her with mashes and grass, did not exercise her, and thus slowly reduced her strength. When her season came, she was sent to the horse in her artificially depleted state, and conceived. When it was evident, by subsequent refusals, that she was in foal, a few weeks' generous fare restored her to her normal condition of strength. The result was a filly."¹

With cattle, Mr. Fiquet writes that when he desires a heifer calf from any chosen cow, he permits her to run at pasture, stints her in feed, feeding only bran, root-crops, and green food, for a short period previous to the œstrum at which she is permitted to receive the male. The bull, on the contrary, is confined in a

¹Wallace's Monthly, vol. xi, p. 21.

lot by himself, is fed bountifully with corn meal, rye and oats, and is restrained in the exercise of his reproductive power, being permitted to serve no other cow until the chosen one has been disposed of. When he desires a bull calf, he simply reverses the conditions. The cow is taken from the herd, stabled, highly fed and well cared for. The bull is fed but sparingly, with "cooling food," and is permitted to serve other cows at every opportunity. Thus the bull's vigor and vitality are reduced. When brought together under these circumstances, it is stated that "the result is invariably a bull calf."

Mr. Fiquet further adds: "An old male mated with a young and vigorous female begets male offspring. An old bull coupled with a young cow begets a bull calf, as is attested upon our own prairies, when we see old bulls going off to themselves, whilst every cow served by them has a bull calf.

"In herds in which there are but few bulls, we find bull calves in the majority; but in those herds in which young and vigorous bulls abound we find heifer calves most numerous."—F. D. P.]

Few organisms resist such a course, when it is followed for a sufficient period of time, and it may be without any danger. A person should, however, bear in mind that the enfeeblement should be continued for only a comparatively brief period.

As is well known, the adoption of a particular regimen is not the only means we possess for effecting a

modification of the health. The hygienic repertory furnishes us many others, which are more energetic and more certain.

There is a state which it is important that we should describe before concluding our work ; it is the period of convalescence from acute diseases. It is at such times that the senses and the generative organs, recovering from their somnolence, commence to shake off their inertia, and to come out of their inaptitude ; that the fatigued body, that the depressed and enfeebled economy, finds itself in the most favorable condition for generation and for producing its own sex, both at the same time.

To those who, after marriage, desire simply a child, the sex is only a matter of secondary consideration. It is for the benefit of those who desire a *particular* sex that we have laid down these rules.

In all our teachings we have affirmed that, in order that conception may take place outside of the ordinary conditions, it is necessary that either one or the other of the spouses be naturally feeble or temporarily debilitated, by disease or through the employment of enervating measures.

When pregnancy takes place, it is necessary to see that the health and vitality are brought up to the standard. The means to be employed for this come within the domain of general medicine.

[The majority of women, when conception takes place, do not consult a physician, and many go

through pregnancy "in a higgledy-piggledy way," as Dr. Tilt calls it. Through over-exertion and over-excitement they frequently abort. While in this condition, they should lead a more quiet life than usual, and should especially avoid much physical exertion or excitement on those days when, but for this condition, they would menstruate.—F. D. P.]

It should be remarked here that, if a very vigorous woman is able, during a brief and transient period of enfeeblement, to momentarily cheat nature, in her intercourse with a feeble husband, the chances are that she will not continue long in the pregnant state. If such a woman, from a state of vigor, passes into one of plethora during the early part of pregnancy, she will abort very easily, and often in spite of every precaution. Especially is this apt to be the case if nature does not seek to avoid such a result through regular sanguineous evacuations, or if she does not submit to a skillfully-directed course of treatment.

There is an old proverb which says: "It is better to prevent than to repair."

It is certainly true in this case if ever.

It is necessary to adopt a debilitating regimen in such cases, and we here repeat that a person should seek the advice of an educated and experienced practitioner. It would, perhaps, not be amiss to state that a person should assure himself that the advice

emanates from one whose opinions are identical with those herein expressed.

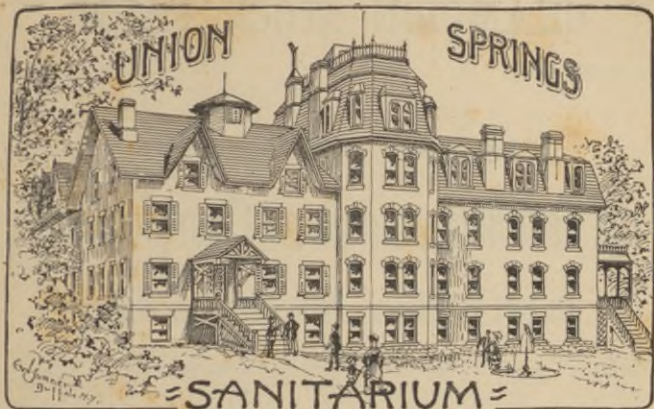
Let us now return to what may be termed the *inter-regnum*, the period during which the marital relations are temporarily suspended.

Few are to be found in this category. We do not desire to set ourselves up in judgment against the great majority, but we do wish to approach the situation just as it is, and not as it should be.

The husband should temporarily abstain from sexual indulgence whenever he desires to be strengthened and to have his vigor restored, or when he desires to obtain a sex different from his own. On the other hand, if he desires to obtain his own sex, he should not lose sight of the fact that it is especially through the health and vigor of his wife that he should proceed.

The same remarks apply equally to the wife; and, furthermore, for the preservation of the pregnant state, it is often necessary that she should abstain from all intercourse with her husband.

THE END.



AN INSTITUTION

FOR THE TREATMENT OF

CHRONIC DISEASES OF ALL KINDS, BOTH MEDICAL AND SURGICAL.

Pleasantly located in the charming village of Union Springs, N. Y., on the east shore of Cayuga Lake. It is fully equipped with every convenience for the application of all recognized methods of treatment; massage, electricity in all forms, aëro-therapeutics, inhalations, and Turkish and other baths. The rooms are newly decorated, cheerfully furnished, thoroughly ventilated, and in cold weather warmed by steam.

We are willing and prepared to receive and treat, at moderate rates, the most difficult cases, those that require for their successful management and cure all the resources of the healing art. With the advantages here afforded, it is possible to cure, or permanently relieve, or at least put into working order, thousands who would otherwise suffer all their lives, and with no other relief but that which comes from the habitual use of narcotics.

For further particulars, and for our Announcement, which contains cuts of the beautiful scenery in the vicinity, a map, and much useful information, address the Superintendent,

F. D. PIERCE, M. D.,

UNION SPRINGS, CAYUGA COUNTY, NEW YORK.

CHAMPION STOCK FARM.

J. B. BURLEW.

G. D. FLINN.

CHARLEY B., 812, The Best Representative Champion Family

Standard by Pedigree, Performance and Progeny

Sired by King's Champion, Jr.; dam, Old Jane, by Zeilley's Eclipse.

RECORD, 2:35 IN A FIFTH HEAT.

Sire of Colonel Wood, 2:22 1-2; Bonny L., 2:27 1-4; Maggie Morrill, 2:29 1-4; Minnie B., 2:29 1-4 at four years of age; Topsy, 2:30 1-4; Honey B., 2:32 1-4; Dina, 2:32 1-2, Etc., Etc.

Terms, \$50, of which \$10 at time of service, and the remainder when mare proves to be in foal.

YOUNG STOCK From Standard Mares For Sale.

A specialty made of furnishing fast road horses.

Upwards of fifty standard brood mares and colts, representing the most fashionable blood of all the best families.

For catalogues, address the proprietors,

BURLEW & FLINN,

UNION SPRINGS, N. Y.

DAVID MASSEY, Groom.



NATIONAL LIBRARY OF MEDICINE

and Welfare, Public Health Service

NATIONAL LIBRARY OF MEDICINE

and Welfare, Public Health Service

NATIONAL LIBRARY OF MEDICINE

and Welfare, Public Health Service

NATIONAL LIBRARY OF MEDICINE

Health, Education, Bethesda, Md.

NATIONAL LIBRARY OF MEDICINE

Health, Education, Bethesda, Md.

NATIONAL LIBRARY OF MEDICINE

Health, Education, Bethesda, Md.

NATIONAL LIBRARY OF MEDICINE

U.S. Department of Health, Education, Bethesda, Md.

NATIONAL LIBRARY OF MEDICINE

U.S. Department of Health, Education, Bethesda, Md.

NATIONAL LIBRARY OF MEDICINE

U.S. Department of Health, Education, Bethesda, Md.

NATIONAL LIBRARY OF MEDICINE

Health, Education, Bethesda, Md.

NATIONAL LIBRARY OF MEDICINE

Health, Education, Bethesda, Md.

NATIONAL LIBRARY OF MEDICINE

Health, Education, Bethesda, Md.

NATIONAL LIBRARY OF MEDICINE

and Welfare, Public Health Service

NATIONAL LIBRARY OF MEDICINE

and Welfare, Public Health Service

NATIONAL LIBRARY OF MEDICINE

and Welfare, Public Health Service

NATIONAL LIBRARY OF MEDICINE

Health, Education, Bethesda, Md.

NATIONAL LIBRARY OF MEDICINE

Health, Education, Bethesda, Md.

NATIONAL LIBRARY OF MEDICINE

Health, Education, Bethesda, Md.



WERT
BOOKBINDING
MIDDLETOWN, PA.
AUGUST 24
We're Quality Bound

QP G716r 1886

61010370R



NLM 05040615 8

NATIONAL LIBRARY OF MEDICINE