

**PARENTHOOD:
DESIGN OR ACCIDENT?**

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A MANUAL OF BIRTH-CONTROL

by

MICHAEL FIELDING

PREFACE BY

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TO
M J. M AND
HIS MOTHER

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PREFACE

I HAVE been shown this little book with a request, which seems to me to be a reasonable one, for a preface. It has been written by a well-qualified medical practitioner and it is, if he will allow me to say so, written extremely clearly and well. But the etiquette of the medical profession—and there is much to be said for it in this connexion—forbids him to put his name to it. This leaves the book purely anonymous, and so far (I am Irish on my mother's side) the possible reader has no means of judging whether he wants to buy and read it until he has read it through. This preface is to help him to a less belated decision. I happen to be a writer with a reputation that can be damaged and a position that can be detrimentally affected, if I associate myself publicly with rubbishing, dishonest or unclean books, and I give my name as a guarantee that this book is nothing of the sort. It has some chapters about the general issues of population control and the personal aspects of its application, and they seem to me to be right-minded and well done. Further it gives very clearly and completely, with all the decency of a scientific textbook, exactly what is clearly known and what is not clearly established about preventive methods. It is never vague, sloppy, lyrical nor shamefaced. This is knowledge that I think every adult in a civilised community ought to possess, whether it is applied

practically or not. Ignorant people are social dirt, a perpetual threat of feverish panics and infections to their healthier neighbours. People who do not want to practise birth-control—and some very good reasons exist for restraint in its employment—people particularly who want to oppose it altogether, ought to possess the minimum of lucid knowledge here conveyed. How can they oppose what they do not understand? How can they restrain, they don't know what? I doubt if they will find what they ought to know set out as plainly and calmly anywhere else as between these covers. It is at once the most exact, plain and unexciting handbook on these intimate mysteries I have ever read. When the adult citizen has gone through these pages he or she will know exactly the physical factors of the modern sexual problem. He or she will have all the mastery of his or her sexual self that knowledge can give. Whatever he or she decides to do or not do, whatever in the long run may appear right or wrong about the matter, one thing at least will become impossible—the bestial and almost involuntary fumbings of an ignorant animal urgency with all its possible consequences in cruelty, fear and hardship to which those who would suppress such publications would condemn most of their fellow-creatures.

H G. WELLS

INTRODUCTION

THIS book is an attempt to explain what is meant by birth-control, the reasons for which it is advocated, and how it may best be practised. It is not, nor does it set out to be, a comprehensive treatise on the subject. Many birth-control methods that have been used extensively receive no mention in its pages; some are mentioned merely to be condemned. My purpose in the practical chapters has been to describe as fully and with as little technicality as possible the methods I have taught personally to my patients, or which have been adopted successfully at the leading birth-control clinics in the United Kingdom and America. No procedure is advocated in this book that has not passed the test of experience and proved itself to be reliable and physiologically and aesthetically adequate. I have preferred to describe a few well-established methods, covering a great variety of needs, rather than to create confusion, and incidentally insecurity, by making a kind of annotated catalogue of all birth-control procedures.

Readers using this book simply and solely as a practical manual may skip the chapters devoted to a discussion of medical, sociological and ethical aspects of birth-control, and the difficult chapter on methods of the future, and study carefully Chapters III and IV, which deal with the general principles and methods of contraception. The

practical instructions are given in language as simple as is consistent with complete accuracy. Technical words are generally explained in the text, but a glossary with full definitions will be found on page 199, and should be referred to whenever an unfamiliar word is encountered. Here and there the reader may find that the method advocated seems elaborate and full of complications. In practice it will be found that the actual procedures are far simpler than the description may suggest.

I do not pretend, however, in spite of what I have said about the simplicity of birth-control procedures, that the best way of learning how to carry them out is by reading this or any other book on the subject. I believe that the practice of birth-control should be learnt from a medical practitioner, who, by virtue of his scientific training and experience, is able to teach each woman consulting him for the purpose a method adapted to her special needs, and to fit her skilfully with the necessary appliances. But many women cannot afford to pay the fees of a private practitioner, and for their benefit I have added an appendix about the clinics that have been established for the special purpose of giving advice on birth-control to poor women. Furthermore, I have made a point of giving the price of all the recommended birth-control appliances, and information about how and where they may be bought most cheaply.

Throughout the book I have tried to avoid the sentimentalities with which many writers find it necessary to invest any theme that involves a consideration of sexual functions. No attempt is made to conciliate any reader's prudery; no concession is made to prurience. Physiological factors are stated baldly and without emotion. It is considered sufficient to mention in its proper place the fact that sexual intercourse is usually pleasurable, or that sexual relations may be beautiful. But it is not deemed necessary to express any ecstasy that in a prosaic world such things should be.

For much of the new matter that appears in this edition I am indebted to professional colleagues and to workers in the birth-control movement who have put their knowledge and experience at my disposal: to Mrs. Evelyn Fuller, secretary and superintendent of the Walworth Women's Welfare Centre, for help in preparing the chapter on birth-control clinics; to Dr. L. C. Butler, for information about the methods of birth-control taught at the Walworth and North Kensington centres, to Dr. Helena Wright, for help in redrafting the chapter on the methods of contraception; to Dr. C. P. Blacker, honorary medical secretary to the Birth-Control Investigation Committee, for much of the material embodied in Chapter V, to Dr. B. P. Wiesner, for information about the internal secretions controlling reproduction; to Mr. R. G. Randall, for help in bringing Chapter VII up to

date; and to Dr. J. R. Baker, of the Department of Zoology, Oxford, for information about chemical contraceptives. To all who have helped me with criticism and advice, as well as to the persons I have named, I wish to express my deep gratitude.

PARENTHOOD : DESIGN OR ACCIDENT?

CHAPTER I

THE MEANING OF BIRTH-CONTROL

§ I

BIRTH-CONTROL (or contraception) means the deliberate prevention, by any method, of the pregnancy that may result from sexual intercourse. The term should not be confined exclusively to the use of special appliances for the prevention of pregnancy. Birth-control is still birth-control if no appliances are used at all. If, for instance, the male withdraws his penis from the vagina before his seed is discharged, that is birth-control. What matters is the *intention* to prevent the production of offspring, not the means used to secure that end.

Everybody would agree, even those who are opposed to birth-control, that although people occasionally have sexual intercourse for the express purpose of securing a pregnancy, they not infrequently are animated by quite other motives. Parenthood may indeed be the reward of sexual intercourse deliberately undertaken with that end in view; more often it is accepted with greater or

less fortitude as the unfortunate penalty that must be paid for the normal gratification of the sexual instincts.

In the lives of most people the sexual act fulfils two entirely separate ends: it may be reproductive and serve to carry on the race; or it may simply fulfil certain intense personal needs of the individuals who participate in it. The aim of contraception is to make possible the separate realisation of these two unrelated purposes of sexual union. For the achievement of either purpose can be entirely satisfactory only when there is freedom to choose between them: when the fear of involuntary impregnation does not overshadow the delight of voluntary parenthood, and when the sexual needs of the individual are not arbitrarily restricted by the desire and ability to produce and provide for children.

Those who advocate birth-control believe that involuntary or accidental parenthood is unworthy of the dignity of civilised men and women; that the fear of undesired impregnation is devastating to the happiness of married people; that a rapid series of pregnancies is dangerous to the health of the woman who undergoes them and of the children born from them; that adults have the right, for their own sakes, to separate the two-fold functions of sexual intercourse; and that children have an even better right to be brought into being, not as a punishment for other people's sins, but only if and when their birth

is wholeheartedly desired and conscientiously provided for.

§ 2

There must be very few enlightened people who still believe that the doctor's chief function is to cure disease. For one thing he usually cannot do it. He can patch and mend, and remove a tumour here and a diseased organ there; in certain types of acute illness, he can lend a helping hand to the natural resistances of the body that are trying to cope with the disease process; he can ameliorate symptoms; but he cannot present a chronically sick patient with the brand-new set of organs and tissues that would be required to produce the only restoration of health that merits the name of cure. This truth is being realised even by the medical profession itself: the function of the doctor is being recognised more and more to be not the cure of fully-formed disease but the prevention of its small beginnings. "Prevention is better than cure" is an expression of popular wisdom; prevention is usually easy—cure often impossible, is a summary of the outlook of modern medicine.

It is as a contribution to preventive medicine that I wish to deal with birth-control in this section. It is very easy indeed to defend contraception when, owing to a woman's state of health, pregnancy may mean the loss of her life; or when a man or woman is afflicted with a transmissible disease that would

almost certainly blight the existence of the child resulting from such pregnancy. No doctor would fail to warn a woman suffering from severe organic heart disease, from pulmonary tuberculosis, or certain types of kidney disease, of the grave danger to her health (and probably life) that would be involved in any pregnancy she might dare to undertake. Indeed, these are among the maternal illnesses that are held, even under existing laws, to justify the termination of an already accomplished pregnancy. Similarly, most people would approve practically any step taken to prevent men and women afflicted with syphilis from reproducing children destined to suffer from the same disease. There are, it is true, some exceptionally high-minded persons whose uncompromising zeal for the uplift of the human race demands the withholding of information designed to prevent the conception of congenitally diseased babies; but, on the whole, in such cases even a most determined opponent of birth-control will concede that some advice on the prevention of conception may be given. It is highly probable, however, that the advice he would give would not be the same as that which would come from an advocate of birth-control.

But birth-control has other uses than as a desperate remedy for desperate diseases. I wish to advocate it not as a medicine for the sick but as an invaluable contribution to the physical and mental well-

being of normal men and women: not merely as a preventive of sickness but as a positive means of advancing health and happiness.

§ 3

It is common knowledge that many female disorders have their origin in excessive child-bearing. Such disorders are, indeed, so prevalent that most people have come to regard them as the inevitable lot of woman and are prepared to face them with a degree of resignation and fortitude which those who believe in such things must find very inspiring. The tragedy of it is that this complacent attitude, this resigned acceptance of premature decrepitude and chronic invalidism, is not wholly confined to men; one meets it even among the women who fill our hospitals, and make work in our operating theatres, entirely on account of disease and disablement contracted from having children more frequently than their bodies can endure.

Because child-bearing is a normal physiological process it must not be assumed that it is free from danger. Every year, in the United Kingdom, more than four confinements in every thousand end fatally.¹ These figures represent an average for all

¹ In the United States the maternal death-rate is even higher. According to data summarised by Dickinson and Bryant (*Control of Contraception*, p. 171), it ranges between 5 and 20 per thousand live births. The higher death-rate is among women at the extreme age limits (i.e. below 15 and over 45), the lower among women of 20 to 24, which is the most favourable period for child-bearing.

classes, rich and poor; in industrial areas they are much higher, amounting in some to no less than eight deaths per thousand. It is true that many of these deaths are preventable; one need only study the variations in the death-rate from district to district to realise this. Better housing conditions, a more efficient midwifery service, adequate ante-natal and post-natal care for every child-bearing woman are all factors that would contribute to a lowering of this appalling maternal mortality. But there are grounds for believing that even under the best conditions a fatal accident rate of nearly two per thousand confinements may be expected.

These are statistics, and therefore, very properly, objects of profound mistrust to every truth-loving person. What, it may be asked, does a death-rate of two per thousand signify? Is it, compared with other death-rates, high or low? Let a simple comparison supply the answer. Coal-mining is generally regarded as one of the most dangerous occupations for men; yet its fatal accident risk—namely, just over one per thousand—is half of that involved every time a woman undergoes the normal physiological process of child-bearing under the best possible conditions. It is surely time that maternity was scheduled by law as a dangerous trade!

But these Bills of Mortality tell only a part of the story, for this "normal physiological process" makes an enormous demand on the health and body of even the best constituted woman. At the end

of her great task of building up, nourishing, and supporting a life other than her own, the mother is in a state of exhaustion; her abdominal muscles are weak and flabby from prolonged over-stretching; the muscles and ligaments that help to keep the womb in its place have lost their tone and her whole body is crying out for rest and recuperation. If the woman is healthy and the labour has been normal, this recuperation will in time be complete. The muscles and ligaments will once more become tense and efficient and the abdomen again be adequate to the task of supporting a pregnant womb.

When, however, pregnancies follow each other without a sufficient interval between them, recovery may never take place. On each occasion a terrific strain is put on the still exhausted organism, on each occasion the residue of exhaustion is a little greater than it was the last. Misplacements of the womb now become so serious that a whole train of symptoms, beginning with chronic backache and ending often in complete invalidism, is initiated. Progressively, the abdominal muscles become flabbier and flabbier until there is no hope of their ever recovering themselves. The pregnant womb can no longer assume its correct position, for this is largely determined by the tenseness of the abdomen; and in the abnormally placed womb abnormal presentations of the embryo (involving difficult and prolonged labour) become increasingly more common. So, too, do tears of the neck of the womb,

frequent accidents during difficult labour; and thus a new danger arises, in that such tears are recognised to favour the development of cancer of the womb. The result is that hospital departments specialising in the diseases of female organs of generation are filled with women, weary and old before their time, suffering from chronic pain and disablement brought about entirely by a too rapid succession of so-called normal physiological events.

A healthy woman, who desires to do so, may have six or even more children, and, as long as her pregnancies are properly spaced, suffer no ill-effects thereby; but the same number of pregnancies in six or seven years is one of the shortest cuts possible to premature old age and infirmity.

§ 4

The psychological evils that may follow excessive child-bearing are no less than the physical. The birth of the first, second or even third child is a source of excitement and joy to the family; later on each undesired pregnancy is greeted with sullenness and anxiety. A woman may begin married life full of gaiety and spirit, an ideal wife and companion to her husband and mother to her children, but one can scarcely conceive a situation that is more dispiriting, more likely to make for irritability, wretchedness and utter loss of interest in life, than that which arises when a woman, still weary from

her last pregnancy, and harassed by the cares and demands of a too large family, knows that she is pregnant once more and that there is nothing she can do to prevent the recurrence of the same situation over and over again. Life becomes a monotonous sequence of annual pregnancies with no hope except that at last (and the sooner the better) the coming of the change of life will provide a merciful release.

§ 5

Is there, in such circumstances, any alternative to birth-control? It is suggested by many opponents of birth-control, even by some who do not dispute the facts I have outlined, that the only remedy that is not worse than the disease itself is self-control. They argue that the desire for sexual intercourse, except for the purpose of reproduction, is one that should be suppressed; and that all the evils of excessive child-bearing could be prevented if men and women only adopted the simple expedient of never entering into sexual relations except when they specifically desired to have children. This spartan injunction is sometimes interpreted a little more generously, particularly by certain theological writers. The use of contraceptives, they argue, is designed to thwart the purposes of Nature, and therefore is unquestionably immoral. What, however, right-minded persons may do (and it is conceded that even they may wish to restrict the

size of their families!) is exercise self-control during the fertile period of the woman's monthly cycle, but enjoy their reward in unrestricted sexual intercourse during the days in which pregnancy is less likely to result—in other words, during the so-called "safe period."

The exponents of this point of view are, it must be confessed, more righteous than logical. If it is true that sexual intercourse except for the purposes of reproduction is unnatural and immoral, then it should be undertaken only during the period when the woman is believed to be in a fertile state. Deliberately to select any other occasion, especially one in which it is hoped and believed that impregnation is impossible, is not only to deny the assumption that sexual intercourse is justified only by the desire for pregnancy, but to practise, in admittedly a clumsy and inefficient manner, the birth-control one is pretending to repudiate. It is true that the practice of birth-control by the deliberate restriction of sexual intercourse to the "safe period" may demand the exercise of considerable self-control; but the virtue of such self-control, which permits sexual intercourse during the very phase of the monthly cycle in which the woman's sexual desires may be completely in abeyance, which in effect substitutes for the sexual intercourse of two persons a one-sided affair in which the male uses the female for securing mere physical relief, does not leap immediately to the eye. Moreover, "safe period"

intercourse has proved itself inadequate as a means of preventing excessive pregnancy.

§ 6

What are the established facts about the "safe period"? It is now common knowledge that in every woman's menstrual cycle—that is the period between the beginning of one monthly flow and the next—there are days of heightened and days of diminished fertility. During the former the chances of pregnancy following sexual intercourse are considerable; during the latter they are slight. Some authorities (but on theology rather than medicine) claim that the chances of impregnation during the latter days are non-existent and for this reason have named them the "safe period."

Those who advocate the restriction of sexual relations to this phase of the monthly cycle overlook three important facts. First, the writers who claim to have investigated the "safe period" differ among themselves on the not wholly negligible subject of when it occurs; some offer you one set of days and some offer you another, and it is possible to accumulate quite a large family while experimenting to find out which of them are right. Secondly, there is no period of *complete* infertility, the chances of impregnation occurring vary in different stages of the monthly sexual cycle, but they are never wholly absent. A fertile woman who decides to restrict her sex life to one or other of the safe periods may find

herself enduring as many undesired pregnancies as a woman practising no form of birth-control whatever.¹

But I am inclined to regard the third objection as the most serious of all. It is this: nearly every woman has an ebb and flow (what is sometimes called a "periodicity") of sexual desire—periods when she needs sexual relations very much and others when she is indifferent to or may be averse from them. On the whole, there is a close correspondence between the phases of heightened desire and the very fertile periods which occur during and in the days immediately after menstruation, and, on the other hand, between the relatively infertile, safe periods and the phases of sexual indifference and aversion. The restriction of sexual relations to the periods when there is no spontaneous uprising of sexual feeling, when there is no deep emotion mutually generated that needs gratification, means, to put it plainly, that the husband is invited to use his wife for the achievement of his own physical satisfaction, without having any possible regard to what she herself may be needing and feeling. It

¹ Dr R. L. Dickinson, of the Committee on Maternal Health, New York, who has made a special study of the "safe period," states that, while there is no stage in the monthly sexual cycle at which conception has not occurred in some women, the week immediately preceding menstruation constitutes a "low-risk period" when the average chance of pregnancy from any single cohabitation is less than 1 in 10. Women are fertile during the menstrual period, but are most fertile during the week or ten days after the period has stopped.

means that a brilliant solution is found for all our sexual difficulties by permitting men and women to have sexual intercourse when they do not want it; and forbidding it, on pain of pregnancy, when they do.

§ 7

During the past four or five years, "safe period" intercourse has been the subject of almost lyrical advocacy by the religious body that had been regarded—evidently incorrectly—as opposed to birth-control. According to one of its professors of moral theology, "the science of physiology has made such happy progress that the whole question can now be treated in an entirely new and scientific manner." Another expert—also on theology, however—has even been able to tell us the Almighty's views on the subject "Divine Providence," he writes, "has come to the assistance of mankind at critical periods by unfolding Nature's secrets. It seems to be doing that in the present crisis by enabling scientists to discover the rhythm of sterility and fertility in women." Scientists are also discovering new explosives and poison gases (which may also help to solve the problem of over-population), but unfortunately the author has omitted to tell us whether the credit for this also belongs to the same supernatural being.

The particular rhythm of sterility and fertility that is now in fashion was discovered independently

by two authorities on diseases of women, Dr. Ogino of Japan, and Professor Knaus of Austria; and on the basis of their researches a new method of "safe period" birth-control—called, after their initials, the O.K. method—has been elaborated for the special benefit of people who imagine that they are against birth-control. Roughly speaking, it consists in limiting sexual intercourse to the phase of the female sexual cycle extending from the eleventh day before the menstrual flow is expected until the tenth day after it has started (omitting the days of the period itself); but experts in the method use a special calendar of sexual cycles on which fertile, low risk, and completely sterile days are clearly marked

It is by no means improbable that the work of Ogino and Knaus has indeed given a more precise definition to the "safe period" than it has had hitherto. It is possible, too, that relatively infertile women can depend on the O.K. calendar as a means of limiting the number of their pregnancies. But to suggest more than that, to write of the O.K. method in terms that imply the existence in the sexual cycle of phases of *complete* sterility, is to practise a wanton and cruel deception on the public, that very large religious public, which turns to theological writers for guidance in all the affairs of life.

I cannot repeat too emphatically that at the very best the "safe period" is no more than a "low risk" period; but even if "safe period" intercourse were as

efficiently contraceptive as its exponents maintain, it would still stand condemned as a method that demanded the mechanical regulation, the control by the day and the hour, of a relationship that loses its beauty when it loses its spontaneity.

§ 8

But the more consistent plea for self-control, the plea that demands complete abstention from sexual relations except when pregnancy is desired, needs further consideration. It means, in concrete terms, that if a couple desire to have three children, then sexual intercourse may occur three times during their married life, or just as often as may be necessary to secure the required pregnancies. To have sexual intercourse more often than that, on occasions, for example, when, pregnancy having been achieved, no further fertilisation can take place, is a clear violation of the principle that sexual relations may only be entered upon when their purpose is impregnation, and therefore is a sin that must not be tolerated. This is a view that can be held only by those who do not realise the utterly devastating effects, physical and mental, that abstinence may have upon the lives of married people; or alternatively, by those who, realising such things, do not care how much pain is inflicted as long as an abstract principle is vindicated; who believe a thing may be good though its product is evil.

One must be clear about this: what is being

demanding is not self-control but abstinence; not regulation of the sex-life for the production of the greatest love, happiness and efficiency, but its denial. It is demanded that lovers should not be lovers; that normal people with sexual desire far in excess of their procreative needs should behave like those whose peculiarity is that their sexual ardour is deficient. The impossible is being demanded.

It is easy to make out a case for sexual abstinence on the part of normal young people who are living a single life; one can, at any rate, argue that even if it is not in every way desirable, it is at least practicable. We are all strong-minded when the temptations are not too great. But the position is entirely different with normal young people who are living together in marriage. If they love one another any gesture of affection may be a sexual stimulus. Overwhelming emotions are likely to be generated by the mere fact of sharing the same room, commonly the same bed. It is fantastic to apply to people who have deliberately chosen to live together because they need each other, and who are therefore likely to arouse in each other a greater intensity of feeling than could be produced by casual propinquity, a code of behaviour which (as every honest person will admit) even single men and women may find it difficult to observe. Married people need sexual intercourse not only for the purpose of expressing their love; their love is enriched by their sexual relations and reinforced by them. Their mental

and spiritual relations gain vitality; the ordinary strains and difficulties inevitably set up between two people living in intense emotional intimacy become less important and easier to deal with when the sexual means of expression and fulfilment are freely available to them. It is not true that a spiritual relationship is enough: between lovers a spiritual relationship requires sexual pabulum or it may sicken and die.

Moreover, this self-control cannot be achieved without the development of certain refinements of technique. Lovers cannot just deny themselves sexual intercourse and leave the rest of life exactly as it was before. So they must be circumspect with each other, move warily in each other's presence, never forgetting the fatality with which One Thing Leads to Another. They must refrain from loving contacts, be undemonstrative of their affection; for if they fail in these things the temptation may become too great and self-control receive a serious setback. If the decision to exercise self-control comes only from the woman's side, she will naturally shrink from her husband's embraces. She will avoid any response to his affection or expressing affection on her own account; for such things are very stimulating and may rouse in her, and in the man, desires which, she has decided, must not be fulfilled. The trouble is that a man whose wife is both undemonstrative and unresponsive may fail completely to appreciate her lofty motives (as you and I would

if it happened to us) and in his crude way assume that she no longer loves him.

But, whether the decision to exercise self-control is mutual, or is imposed by one or the other partner in the relationship, the situation is, in the long run, the same. It involves two people who are trying themselves beyond human strength; who, by the denial of one of their most powerful instincts, are attempting an outrage on nature that must be paid for in domestic disharmony and physical and nervous disorder; and who are doomed to learn that those who begin merely by denying the expression of love end by having no love to deny.

All this is not real self-control. It is an unnatural, a fantastic, code elaborated in unhappy, twisted minds obsessed with the belief that sexual intercourse is a dirty action. There are deficiently sexed people who can refrain from sexual relations with impunity. They can refrain not because they have self-control but because they have no strong desires that need controlling. This is a very different matter from the genuine self-control which normal, healthy, well-sexed people must and do exercise within the marriage relation. For the most happily mated lovers still need a measure of reason and restraint in regulating their sexual impulses so as to get the very best out of them, to satisfy their love without satiating it, and to put their sexual needs into harmonious relations with all their other needs, physical, mental and spiritual—not above them or below them.

but interblended as they have to be in a good and an efficient life. Self-control based on an understanding of the sexual instinct and on mutual consideration ennobles and enriches the marriage relationship; self-control based on fear of pregnancy, and masquerading as virtue, is a mockery and brings with it all the penalties earned by a violation of nature.¹

§ 9

Birth-control provides the only intelligent solution of these sexual difficulties. It is the only means of avoiding the evils of excessive child-bearing on the one hand and the need for sexual abstinence on the other. It makes possible the complete separation of the personal and procreative functions of the sexual life. It eliminates from sexual relations the kind of anxiety that undermines the nervous system and thwarts the natural expression of love. In all these respects it is a positive contribution to the health, serenity and harmony of married people.

¹ The objection to birth-control on the grounds that it is unnatural is discussed in Chapter VI

CHAPTER II

THE SOCIOLOGICAL FACTOR

§ I

IN considering the social and political aspects of birth-control we may begin by examining the differential birth-rate—that is to say, the birth-rate as it varies between persons of different professions, trades, and economic and social classes. The following table illustrates the great differences that may be found in the birth-rates of certain well-marked social strata:

England and Wales, 1921	Births per 1,000 Married Males under 55 Years	Deaths of Infants under 12 Months per 1,000 Born
Middle and Upper Classes	98	38
Skilled Workmen	141	77
Unskilled Workmen	178	97
Medical Practitioners	79	29
Clergymen, Church of Eng- land	78	27
Dock Labourers	209	112

It will be observed that whereas in 1921—the last year for which figures are available—the upper and middle classes produced children at the rate of 98 per thousand, the average rate for skilled workers was 141 per thousand, and for casual labourers 178

per thousand. Comparative statistics for various professions and trades show that among doctors the birth-rate per thousand families was 79; clergymen show the still more restrained figure of 78; while among dock labourers the figure was no less than 209. The infantile death-rates for these classes and occupations also merit attention: there is a direct correspondence between birth-rates and death-rates, high birth-rates being associated with high death-rates and *vice versa*. These figures need very serious consideration, though not, I think, for the reasons adduced by some of the well-to-do people who are anxious to teach birth-control to the poor.

It is maintained by them that the differential birth-rate is evidence of the fact that the nation is breeding from its worst stocks; that whereas the so-called better classes with good physique and ability are not producing enough children to maintain their numbers, those with the least efficient minds and feeblest bodies are breeding so rapidly that if the process goes on much longer the whole race will certainly deteriorate. Success in the struggle for life is assumed to be a criterion of biological worth: failure, a proof that the stock is bad and should not be maintained. The teaching of birth-control to the poor is advocated as a means of preventing the flooding of the community with worthless individuals.

It seems to me that this is the kind of travesty on scientific thinking that one is bound to meet in a

society obsessed with class prejudices. I have no doubt that in any community some individuals are, in some respects that most of us think desirable, intrinsically better than others, and, given the opportunity and encouragement, more likely than the rest to produce a fine race. But I suggest that in a society like ours, characterised by vast differences in wealth and opportunity between class and class and family and family, it is the hardest thing in the world, a job for highly trained experts, to determine with any certainty which these individuals are. Æsop tells a fable of an ass that put on a lion's skin and was making a very fine impression on all the animals in the jungle until he gave himself away by braying. Nowadays, there is nothing to stop the ass from assuming a lion's skin—if he can afford to buy one. And as long as an expensive education is able to turn a bray into a passable imitation of a magnificent roar he is not likely to be found out. .

If we wish to improve the physical and mental qualities of mankind we must first learn how to estimate true biological worth; and we must face the fact that the task is made infinitely harder for us by our living in communities in which all the individuals do not start at scratch. We must not fall into the easy fallacy of judging the biological qualities of a person by the depth of his purse, or of assuming that the term "better" as now applied to classes means anything other than "richer." Persistent bad feeding, bad home conditions and inadequate edu-

cation may turn a fine child into an unhealthy, undersized, incompetent adult; while in another social stratum the average child may have an opportunity to develop the best potentialities that are in him. An adult person is so much a product of his environment that it may be impossible to estimate his value as stock to breed from until every allowance has been made for all that fortuitous circumstance may have done to him. An apparently third-rate adult may be the potential parent of first-rate offspring, a man must be judged biologically, not by what he is, but by the kind of spermatozoa he carries.¹

§ 2

The differential birth-rate, none the less, presents serious problems because it shows clearly that the classes who are economically least capable of bearing the burden of large families are the very ones who are producing them. It is undesirable to breed, even from a stock that the most exacting eugenist would approve, children who, for economic reasons, may never be given a proper chance in life. The prevention of excessive child-bearing among the poorest classes should be advocated not on the ground that they are the "worst stocks," but in order to stop the production of children fated by parental poverty to lead hopelessly inadequate lives.

¹ It is only fair to state that real eugenists—as distinct from well-to-do persons who think something ought to be done about the "lower classes"—would endorse most of the views expressed in this section

Wherever one finds a high birth-rate one also finds a high infantile death-rate. That is not the worst, however: it is a tragedy for the parents, but not necessarily for the infants. But a high death-rate is also associated with a high sickness rate, and that means that a large percentage of the surviving children are fated, by cause of infantile disease, to grow up into frail, suffering men and women whose lives are a burden to them, practically from the cradle to the grave.

A civilised regard for the happiness and well-being of children demands the practice of birth-control; it demands that the rights of the child should be taken into account. As we must decide for ourselves both the nature and extent of those rights, there is, of course, no need to be very exacting; but it does not seem excessive to suggest that no child should be brought into the world unless he is wanted, unless there is sufficient food, clothing and shelter available for his physical needs, and enough loving care to tide him over his early helpless years. The provision of education is no less important. In our complex society the man or woman who has been denied education in childhood and adolescence, who by reason of poverty has been pushed straight from an inadequate school-life into any sort of blind alley occupation, is likely to go to the wall. He joins the great mass of semi-skilled and unskilled persons for whom there are never enough jobs to go round; he becomes part of the margin of superfluous persons

available for use by those whose unflinching contribution to the solution of our economic difficulties is to beat down still further the standard of life of the mass of the people.

§ 3

Not only is birth-control the child's charter, safeguarding his right to affection and nurture; but it also provides for the great mass of people the only solution to the domestic and financial problems of the marriage state. There is, to begin at the very beginning, the question of early marriage. Innumerable young people who want to marry, and who could make each other very happy, are deterred by the knowledge that their income, though sufficient for themselves, could not bear the strain of decently maintaining another person. A knowledge of contraception would make it possible for them to undertake marriage without a sense of guilt or fear; and they could defer having children till their income was adequate to the demands that such an undertaking would make on it.

Many people, it is true, believe that early marriage involves a premature focussing of interest on the sexual life, to the detriment of spiritual and intellectual development. I do not think that such a belief corresponds with the facts. Most normal young people feel very urgent sexual needs which distract their minds and draw their energies away from the practical purposes of life. They find that they cannot,

as it were, get on with the job, when in spite of their very best intentions, sexual longings insist on obtruding themselves and diverting their attention from practically everything else. Sexual starvation means not only that terrific efforts (that could be far more profitably directed to intellectual ends) have to be made to suppress desires that are as primitive and as natural as hunger for food, but, only too often, a yielding to temptations which involve the risk of infection by venereal disease. Early marriages with contraception seem to me to be by far the best alternative open to young people whose economic circumstances permit no proper provision for children

It is also sometimes held that birth-control, by enabling young people to have sexual intercourse without the attendant risk of pregnancy, will make for increased sexual immorality. I am not deeply impressed by a morality that is based on fear. nor, however, am I disposed to deny that birth-control may lead to a certain increase of illicit sexual relationships among young people. But it seems to me to be less harmful to society that young people should sometimes follow their mating instincts without first asking permission than that venereal disease should be disseminated and unwanted illegitimate children be brought into the world. Incidentally, there would be far less occasion for these illicit relations if men and women could marry early; and if married men were not denied by their wives

(from fear of pregnancy) and thus driven to seek an extra-marital sex-life.

The two-fold tragedy of working-class and middle-class couples ignorant of birth-control is either that they do not marry because they cannot afford to; or that, in spite of this fact, they do marry and produce children who disintegrate their lives instead of fulfilling them. Two young people may start marriage full of love for each other and with ideals of common work and companionship; and they may be in a few years reduced to complete demoralisation and mutual antagonism entirely on account of the weariness and harassment of the too-frequently pregnant woman, and the anger of the man at finding not only that there are more children than he can afford to feed, but that his wife, distracted by the care of her growing family, has no time to spare for her relationship with him. The children also suffer because, quite apart from the fact that there is not enough food of the proper kind for their growth and development, a tired, overstrained mother provides the worst possible environment for an unfolding personality. The human child is not like the young of certain wild animals who are self-supporting almost from the start, in the whole range of animal species he has the most helpless infancy. He needs the care of serene, undistracted parents if he is to develop the best that is in him. He suffers if he is reared in a family too poor to supply the needs of his body, and too weary with

the care of many others like him to be concerned with the growth of his mind.

§ 4

It must be freely admitted that very small families have certain disadvantages. The "only child" is handicapped in its psychological development not only by the lack of ordinary, rough-and-tumble, give-and-take relations with other children of about its own age, but because it very quickly becomes sensitive to, and learns to exploit, the exaggerated anxieties that are almost inevitable when all parental affections and hopes are concentrated on one child. It is better, therefore, both for parents and children, that there should be more than one child in the family. Fortunately, many parents practising birth-control recognise this and produce two, three, or more children, using contraception solely for the purpose of allowing a sufficient period to elapse between the birth of one child and the next.

But allowing these facts their full weight, one may still maintain that it is better to have only one child who can be given the opportunity of a full life, than many who must be denied the elementary necessities of existence. The difficulties of the only child, however serious, are not insuperable. Play with other children may be encouraged, to substitute for the social environment normally provided by brothers and sisters; and the spread of knowledge of child

psychology is teaching parents to control their anxieties.

The important thing to realise is that birth-control does not necessarily mean small families; it means families no larger than the strength of the mothers and the economic status of the parents can bear. It means families created, not in bouts of passion, but voluntarily in the most favourable circumstances possible. Such families secure, as a matter of course, innumerable advantages which only an exceptionally lucky chance can give to families resulting from a cumulation of accidental conceptions.

CHAPTER III

THE GENERAL PRINCIPLES OF CONTRACEPTION

§ 1

BEFORE discussing in detail the methods of contraception it is necessary first to consider the broad anatomical facts and general principles upon which they are based. The grossest ignorance of the most elementary details of the structure of the body is by no means confined to the uneducated. It is prevalent to an astonishing degree among those who are reckoned (even by themselves) to constitute the well-informed intelligentsia. Even the earnest men and women who discuss the theories of Freud seem to know everything about sex except its organs.

The following irreducible minimum of anatomical and physiological facts upon which an understanding of contraception must be founded is offered, then, in the anticipation that to some, at any rate, of the readers of this book they will prove as new and as startling as the latest scientific discoveries.

§ 2

The essential female organs of generation are the ovaries and the womb. The ovaries, which are two small, almond-shaped bodies, are situated one on each side of the lower part of the abdominal cavity (known as the pelvis) and each one is connected

with the womb by means of a passage called the Fallopian tube. The appended diagrams will make the relationship clear:

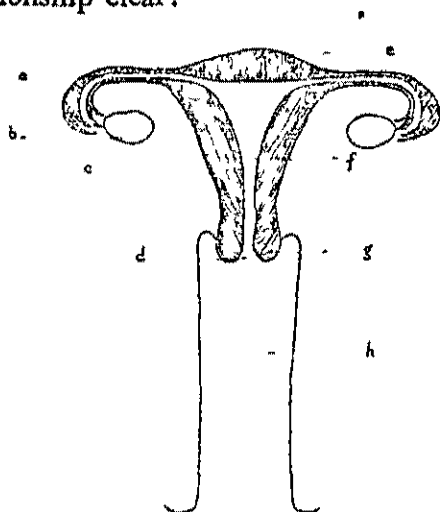


FIG 1 —FEMALE ORGANS OF GENERATION

- | | |
|------------------|------------------|
| a—Fallopian Tube | e—Fundus |
| b—Ovary | f—Cavity of Womb |
| c—Body of Womb | g—Cervix |
| d—Os. | h—Vagina |

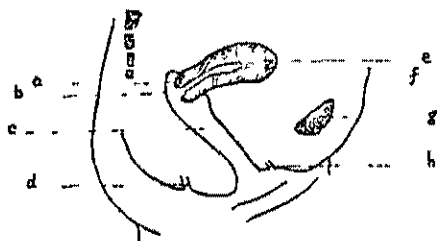


FIG 2 —FEMALE PELVIC ORGANS (SIDE VIEW)

- | | |
|-----------|------------------|
| a—Cervix | e—Body of Womb |
| b—Os. | f—Cavity of Womb |
| c—Vagina. | g—Pubic Bone |
| d—Rectum. | h—Urethra. |

The womb is a thick-walled hollow organ situated mainly inside the pelvis, but with a small portion, called the neck or cervix, projecting like a knob into the vault of the vagina. The vagina is the organ through which sexual intercourse takes place. There is, in the neck of the womb (cervix), a small aperture leading straight to the inside of the womb, and this aperture is known as the "os" or mouth. It will be seen from the diagram that there are continuous paths connecting the ovaries with the vagina, by way of the Fallopian tubes, the cavity of the womb and the cervix. Furthermore, it is evident that the vagina has, as it were, a roof that shuts it off *completely* from the inside of the abdomen. There is no chance, therefore, that objects such as the pessaries later to be described may escape into the abdomen and, as some people fear, wander freely about inside the body. The only road from the vagina to the abdominal cavity is by way of the tiny aperture (os) in the neck of the womb.

The ovaries of sexually mature women fulfil a number of important physiological functions; but here we are concerned only with the fact that they house minute egg cells (called ova) in varying stages of maturity. Once in each menstrual cycle, probably about the fourteenth day from the beginning of the blood flow, one egg cell or ovum, having completed its development, separates from the ovary and passes slowly along the Fallopian tube of its side towards the cavity of the womb. This ovum is the cell by

which life is carried on from generation to generation. Before it can develop into the embryo, which is the beginning of a new life, it has to be fertilised by another kind of cell, called a spermatozoon, which is contained in the seed or semen of the male. Thus, for fertilisation to occur semen must pass into the womb through the aperture called the os and, somewhere in the female genital tract, usually in a Fallopian tube, meet the mature ovum. The compound cell formed in this manner from the union of a spermatozoon and an ovum usually then passes into the womb where, having embedded itself, it undergoes the changes that end in the birth of a baby. If the ovum does not meet spermatozoa, if in other words it is not fertilised, it dies or passes from the body with the menstrual blood, and another one takes its place the following month.

§ 3

It will be evident from these facts that contraception can be achieved by any expedient that prevents the spermatozoa from entering the womb, or that kills spermatozoa, or that renders them so inactive that they lose their power of fertilising the ovum with which they may come in contact. The presence of spermatozoa in the vagina is of no importance in this connexion; a pregnancy can only be achieved if *active* spermatozoa pass from the vagina through the os into the womb. Most of the contraceptives that have been devised are there-

fore either mechanical or chemical in nature. Either they are obstructive devices for preventing the passage of spermatozoa from the vagina into the womb, or they are compounds which act on spermatozoa in such a way as to make them inactive and therefore ineffectual.

But, to be of any real value, a contraceptive besides effectively preventing conception should have other qualities. Sexual intercourse is a very complex act in which the actual emission of semen into the female body is only an episode. It involves certain preliminaries of wooing and accumulation of tension; and it is not ended until the release of tension (called the orgasm) is followed by serenity and a desire and opportunity for rest and sleep. An ideal contraceptive is one which never interrupts this complex continuous act which makes it possible for the whole process, from the beginning of excitement and wooing to its resolution in sleep, to accomplish itself as freely and spontaneously as if no contraceptive at all were being used. It must be, in other words, an *unobtrusive* contraceptive, one which never creates awareness of its existence (except in so far as there is awareness of the fact that the particular act of sexual intercourse is one that will not be followed by pregnancy). In addition, (to this, the contraceptive must be easy to apply, inexpensive and harmless.

There is no such ideal contraceptive. Certain methods fulfil most of the above conditions, no

one of them (at present) fulfils them all. Many opponents of birth-control regard this fact as an insuperable objection to the use of contraceptives. Birth-control is condemned, they say, because there is no perfect method of practising it.¹ In this matter there is an interesting difference between those who believe in birth-control and their opponents. The former are prepared to use imperfect methods, and to advocate their use, while hoping for something better in the future: the latter believe that only perfect methods should be used, but would be most distressed if such methods were actually discovered. Advocates of birth-control do well, however, to keep in mind the lofty standards set up by those who do not share their ideals, in order the better to judge the merits or insufficiencies of any particular contraceptive technique that may be offered for their consideration. Some commonly advocated birth-control methods, judged by these standards, fail at once; others demand a little more careful study. The method of depending on the "safe period," for example, stands condemned, not only on the ground that it interferes grossly with the spontaneity of the sexual process, but because no method which does not take into account the sexual needs of the woman can be called harmless. It may also be added that it is not easy to apply and it is not safe.

¹ See, in this connexion, pp. 41-43 of *More Medical Views on Birth Control*, edited by Norman Haire

§ 4

The method of "withdrawal" (or *coitus interruptus*), though condemned by every competent authority, is still adopted very widely even among people who know other methods of contraception, but cannot be bothered to apply them. It is practised by the male withdrawing himself from the female just before he feels that semen is to be emitted, the assumption being that thereby no sperms will be deposited in the vagina, later to make their way into the womb.

This assumption is unfounded. Even if the male manages to time withdrawal perfectly (an exceptionally difficult feat) he has absolutely no guarantee that a small quantity of semen has not entered the vagina before the occurrence of the actual emission. And the very smallest quantity of semen, if it contains spermatozoa—a not unlikely event considering that each cubic centimetre may contain some five hundred million—is sufficient to impregnate the waiting ovum. Withdrawal is, therefore, an ineffective method of preventing conception. It is also a very dangerous one. Sexual stimulation is permitted to occur, sexual excitement to accumulate, and then, at the moment of most overwhelming tension, when both the man and woman feel an overpowering need for abandonment, a terrific effort has to be made and the whole process brought abruptly and brutally to a stop. Just when they both would

prefer to be thinking solely of their joy in each other, their minds must be separately fixed on the thought that at the critical moment their control must not fail. There can be no self-forgetfulness; every moment is one of watchfulness and anxiety—an anticipation of possible calamity. In the end, two people are left with a great accumulation of excitement and emotion and no adequate means of release

I cannot say on whom the effect is worse, the man or the woman. But some of the worst cases of nervous breakdown, associated with chronic worry and anxiety, in essence the same kind of anxious anticipation as has just been described, are found in men and women who have regularly practised *coitus interruptus* as a means of contraception. One hears of people who have been apparently unharmed by it, who have suffered neither nervous symptoms nor symptoms of pelvic congestion; and it would perhaps be an overstatement to suggest that *coitus interruptus* is necessarily harmful to all people. Even so it is indefensible. It demands of both the man and the woman an unwavering concentration upon the fact that it is being adopted. Throughout sexual intercourse they must never let escape the thought that at all costs the man *must* withdraw in time. They must cultivate an unremitting watchfulness for any impending orgasm—an acute awareness of what is practically one moment of the sexual process, to the exclusion of all the rest. Such a

method stands condemned on æsthetic grounds alone. It cannot, when one takes into account the loss of happiness and health that follows upon inadequately assuaged desires, even be maintained that it is inexpensive.

§ 5

The method of syringing the vagina immediately after sexual intercourse may be subjected to very similar criticism. It is as likely as not to be ineffective because the syringe, while dealing with spermatozoa actually in the vagina, cannot reach any that may have been deposited directly into the womb itself. It introduces, moreover, a number of extraneous processes that interfere very seriously with the ideal continuity of the sexual act. A woman who realises that intercourse must be followed immediately by leaving her bed in order to perform elaborate ablutions is inevitably more reluctant to be wooed. The actual process of syringing, moreover, interrupts the serenity and rest that should follow the sexual crisis. Any sensitive male will rather "nurse unacted desires" than submit a woman to an ordeal that is so objectionable.

Some further disadvantages of syringing will be considered in the next chapter, when the indications for the occasional use of this expedient are being discussed.

§ 6

All that I would say for the methods now to be described is that they are the best available. In many respects they fall short of the ideal: and there will be no attempt to disguise their shortcomings. But they have proved efficient and contributed to the marital happiness of thousands of people, including the great majority of those to whom I have had occasion to give advice on birth-control.

CHAPTER IV

METHODS OF CONTRACEPTION

§ 1

THE ideal way of learning birth-control is to consult a doctor sufficiently experienced in the subject to adapt the method to the patient's special needs, skilfully fit the necessary appliances, and deal adequately with any difficulties that may arise. This obviously desirable proceeding, for reasons that will be discussed later, is available to only a small number of people. I shall, therefore, in this chapter describe the methods of contraception in the simplest possible language, and in so much detail as to reduce the possibilities of error to a minimum.

I wish to emphasise the fact that the methods are very easy to apply. Any person with average intelligence can adopt them with complete confidence. In every case, moreover, the practice of the method will prove to be much simpler than would appear from the description. It is rare to meet a patient who cannot master all the practical essentials of birth-control in less than half an hour.

§ 2

METHOD I. CHEMICAL CONTRACEPTIVES

(a) *Soluble Pessaries*

Soluble pessaries will be described first, not because they are the best or the most reliable con-

traceptives, but because they are the easiest to use. They are small, round or cone-shaped bodies which, when inserted into the vagina, are melted by the heat of the body, forming a film which acts as a barrier over the cervix and prevents any active sperms from entering the womb. Usually, soluble pessaries contain, among other constituents, some compound believed to act as a spermicide, which is the technical name given to a sperm-destroying substance. Their action is therefore both physical and chemical: when melted inside the vagina they block the entrance to the womb; and by means of their sperm-destroying substance they render any semen that may by chance get past the barrier incapable of fertilising an ovum. That, at any rate, is the theory!

No contraceptive could be easier to apply: one soluble pessary is inserted high up into the vagina five to ten minutes before sexual intercourse, and the precautions are complete. It seems very little, and it is hard to believe that it is adequate, yet many people who depend entirely on this means of contraception assert that, provided the pessary is given a full five minutes in which to dissolve and form a film over the cervix, it is completely reliable.

Until fairly recently, most varieties of soluble pessary on the market were made of coco-butter and contained quinine as the sperm-killing substance. Rendell's "Wife's Friend" pessaries and Lambert's "Lam-butts" are the preparations of this

kind of which I have had most experience.¹ They are both excellent and have one far from negligible advantage over many of the new-fangled contraceptives that are now flooding the market: they have stood the test of time. In the past few years pessaries containing chinisol, boric acid, lactic acid and other alleged spermicidal substances have competed for attention. They seem to have no advantages whatever over the established products, and it may be added that their spermicidal value has been questioned by leading authorities on the chemistry of contraception.²

§ 3

In the first edition of this work³ I suggested that, in manufacturing pessaries, great care must be taken to include the right amount of quinine, and to distribute it evenly throughout the coco-butter, or whatever base may be used. But in view of the results

¹ "Wife's Friend" Soluble Pessaries are manufactured by Messrs. W. J. Rendell & Co., 14, Chadwell Street, London, E.C. 1, and sold at 2s. 6d. per box of one dozen.

"Lam-butts" are manufactured by Messrs. Lamberts (Pro-race), Ltd., 60, Queen's Road, London, E. 8, and sold at 2s. 6d. per box of one dozen, or 6s. for three boxes.

These pessaries may be obtained from most chemists and rubber shops, or direct from the makers.

² See *The Chemistry and Physics of Contraceptives*, by C. I. B. Voge. Jonathan Cape, 1933. Price 12s. 6d. net; and the series of papers by Dr. John R. Baker on the "Spermicidal Powers of Chemical Contraceptives," published in the *Journal of Hygiene* in January 1930, April and July 1931, and April and November 1932.

³ Published in 1928.

obtained by Dr. John R. Baker in his investigation of the sperm-killing power of various chemical contraceptives, I now doubt very much if the value of Rendell's "Wife's Friend" or Lambert's "Lambutts" depends primarily on their quinine content.¹ Dr. Baker elaborated an ingenious method for comparing the sperm-killing powers of various contraceptives sold to the public, and found that neither quinine nor chinosol (a closely related substance) had any appreciable effect on the activity of spermatozoa. Pessaries containing these substances were ineffective even when they were acting at the full concentration intended by the manufacturers. The experiments, it must be borne in mind, were carried out in glass vessels; and though every effort was made to reproduce vaginal conditions, it is, as Dr. Baker points out, possible that "the experiments might have had somewhat different results if they could have been carried out in the human vagina."

But even if the pessaries failed to kill spermatozoa in the human vagina, they would not thereby have proved themselves ineffective. The experience of many persons tends to show that they can be very effective indeed; and I think it may therefore be concluded that, though they prevent conception,

¹ I wish to thank the editor of *The Journal of Hygiene* for allowing me to draw on Dr. Baker's reports for much of the material in this chapter. The work was undertaken at the request of, and financed by, the Birth-Control Investigation Committee, and carried out in the Department of Zoology and Comparative Anatomy at Oxford.

they do so not, as their manufacturers believe, by virtue of their chemical but of their mechanical properties.¹ They do not kill sperms, but they prevent them from entering the womb. The ordinary person is not very deeply concerned with the way in which a contraceptive acts; he would—and who would not?—rather have a contraceptive that is all right in practice even though it is wrong in theory than one which is all right in theory but all wrong in practice.

§ 4

(b) Foam-producing Tablets

Foam-producing tablets, like soluble pessaries, contain substances that are intended to destroy or immobilise sperms, but their base is not one that melts at body temperature, but which, in contact with water, undergoes chemical changes that result in the formation of a more or less dense foam. When placed inside the vagina these compressed tablets effervesce violently—at least they do if they are well made and the vagina is moist enough—and liberate large numbers of coalescent gaseous

¹ The manufacturers of Rendell's pessaries state that they rely not on the quinine compound but on its acid content. They regard as important the careful blending of the coco-butter base which must melt at body-heat and emulsify easily. Within this emulsion, they say, the spermatozoa are entangled, and so prevented from passing into the womb. They claim, therefore, that quinine pessaries have both a chemical and a mechanical action.

bubbles. These distribute themselves over the surface of the vagina, at the same time covering the entrance to the womb. It is claimed on behalf of foam-producing tablets that the barrier formed by this foaming mass distributes the spermicide more effectively and is far more likely to obstruct the road into the womb than is the coco-butter or other non-effervescing base used in the manufacture of soluble pessaries

It must be conceded that the best preparations in this class have a powerful chemical action on spermatozoa. In the course of the investigations already referred to, Dr. Baker showed that two of the best known foam-producing tablets on the market—namely, Semori and Speton—were so deadly to spermatozoa that it was practically impossible to decide whether one was more effective than the other.¹ For Semori the manufacturers make the further claim that it has an antiseptic action, powerful enough to afford protection against the germs causing gonorrhoea

¹ Semori is sold in England by Medical Laboratories, Limited, 40, Pall Mall, London, S W 1, at 5s per tube of one dozen tablets. It is supplied only through the medical profession, and members of the public can obtain it from chemists only by producing a doctor's prescription. Speton may be obtained from chemists at 3s 6d per tube of one dozen tablets. The agents are Messrs Coates & Cooper, 94, Clerkenwell Road, London, E C 1. Messrs Lamberts (Prorace), Ltd, 60, Queen's Road, London, E 8, have manufactured a foam-producing pessary under the name of "Bymeston". For this tablet they claim that it is as effective as any on the market, it costs 2s 9d per tube of one dozen tablets.

For all that, very few experienced observers are as enthusiastic about these preparations now as when they first came into the market. Their most obvious disadvantage is that their effectiveness depends in very large measure on the amount of moisture in the vagina; but as this is a variable quantity, and is definitely deficient in many women, the tablets often fail to dissolve completely, or dissolve on some occasions and not on others. It is true that the manufacturers advise women deficient in vaginal moisture to start the effervescence by dipping the tablets in lukewarm water before inserting them; but even this procedure, in any case objectionable in disturbing the continuity of the sexual act, may be ineffectual, effervescence often stopping shortly after the tablet has been put into the vagina. Moreover, an unduly large proportion of women complain that the tablets produce smarting of the vagina, and occasionally they produce smarting of the penis as well.

The method of using Speton, Semori, Bymeston and other foam-producing tablets is exactly the same as for soluble pessaries. One tablet should be placed as far up as possible into the vagina three to five minutes before sexual intercourse. Less than three minutes may not give the tablet a chance to dissolve completely; on the other hand, after five minutes the foam may begin to break down and so lose its effectiveness as a barrier to semen. Thus, women whose vaginal secretions are copious enough to

dissolve the tablets, who can use them without suffering pain, and who just before sexual intercourse can estimate exactly when more than three but less than five minutes have passed, may protect themselves against undesired pregnancies by means of foam-producing tablets. But for other women I do not recommend them.

§ 5

(c) *Foaming Jellies*

Foaming jellies represent an attempt to overcome the chief disadvantages of the tablets discussed in the previous section. namely, their failure to effervesce except in the presence of sufficient vaginal moisture, and the instability of the foam that results from their solution. Those best known in this country are called PermFoam and Bymeston Foaming Jelly, products that are alike in all essentials—that is to say, in the chemicals from which they are prepared and the containers in which they are put up—but differ with respect to the nozzles by means of which they are introduced into the vagina.¹

The container of Bymeston Foaming Jelly is illustrated in the diagram. From the outside it looks like a short fat tooth paste tube; but really it consists of

¹ PermFoam is supplied by Messrs Gilmont Products, Ltd, Tileyard Road, London, N 7. Bymeston Foaming Jelly is supplied by Messrs Lamberts (Prorace), Ltd, 60, Queen's Road, London, E 8. Both preparations cost 5s the box of 6 tubes.

two tubes, one inside the other, of which the inner tube contains an acid jelly and the outer a bicarbonate jelly. When the tube is squeezed between the fingers the contents of both the inner and the outer tube are forced into the nozzle (which should be

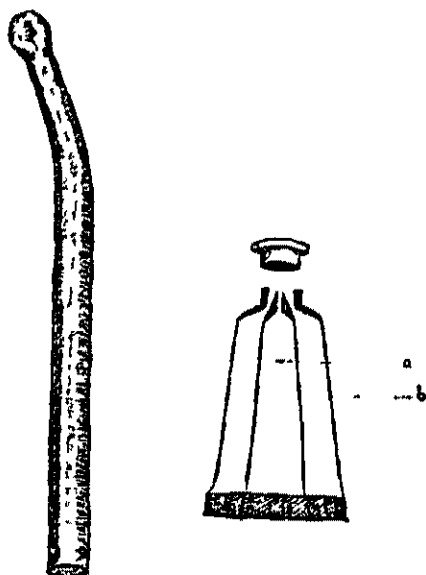


FIG 3 —FOAMING JELLY DOUBLE TUBE WITH BAKELITE NOZZLE

a—Inner Tube.

b—Outer Tube.

screwed on beforehand), where they interact to form a dense foam charged with carbon dioxide gas. Thus, two of the factors that determine the success or failure of foam-producing tablets are eliminated in foaming jellies. These jellies produce a foam in the complete absence of vaginal moisture; and they produce it

at once. Their success is thus not contingent upon what must be the very rare (and unenviable) talent of being able to estimate a period of three to five minutes during pre-coital excitement

To apply foaming jelly all that is necessary is to remove the cap from the container, screw on the specially provided nozzle, insert this gently as far as it will go into the vagina, squeeze out the contents of the container, and then withdraw the nozzle. The foam thus formed has considerable spreading power; it penetrates the folds of the vaginal membrane and at the same time forms a barrier across the neck of the womb which may persist for fully half an hour, and may remain capable of destroying spermatozoa for several hours longer. Thus Perm-Foam and Bymeston Foaming Jelly have a three-fold contraceptive action. to begin with they form an efficient mechanical barrier to semen, secondly, they immobilise spermatozoa by means of the carbon dioxide gas that forms their bubbles; and thirdly, they destroy spermatozoa by means of the powerful spermicidal chemicals that are included among their constituents

Both forms of foaming jelly are sold in boxes of six tubes, each of which contains sufficient for a single application. In the PermFoam package there is a separate nozzle for each tube; in the Bymeston Foaming Jelly package there is only one nozzle. On behalf of the former arrangement it is claimed that it is more hygienic to use a fresh nozzle each

time; on behalf of the latter, that the nozzle supplied is much stouter—and thence less liable to produce accidental injury to the vagina—than the somewhat flimsy nozzles supplied with PermFoam. It is certainly true that cleanliness in the nozzle is desirable; but the bakelite nozzle of Bymeston Foaming Jelly is very easy to clean. It is equally true that rough and careless insertion of the thin metal nozzle of PermFoam may possibly result in injury to the vagina, but the event is not very likely. Personally, I prefer the stout nozzle of Bymeston Foaming Jelly; but you (quite literally) pay your money and take your choice.

It is here, however, that we meet the outstanding disadvantage of these preparations. Their price is necessarily very high. The containers are elaborate and have to be very well constructed, and the manufacturing costs are considerable. It is at present impossible to market foaming jellies at much under one shilling a tube, a price that puts them beyond the means of all except well-to-do persons or those who have sexual intercourse very infrequently. The only other criticism that may be made of foaming jellies is that they are no less liable than foam-producing tablets to produce vaginal smarting, though it must be admitted that very few women complain of discomfort from their use. As contraceptives—that is, judged simply and solely from the point of view of their effectiveness in preventing pregnancy—they take a very high place. If only they were

cheaper I should have no hesitation in recommending them for general use.

§ 6

LIMITATIONS OF CHEMICAL CONTRACEPTIVES

So far, I have described some of the more commonly used and, in my opinion, most efficient varieties of chemical contraceptives. I have pointed out that many persons find them reliable and prefer them to any other contraceptive devices. Chemical contraceptives have, indeed, one outstanding advantage: their use makes no great call either on forethought or intelligence. Comparatively stupid people can learn to use a method which demands no more of them than that they should insert a small tablet or pessary high up in the vagina some five minutes before sexual intercourse, or squeeze foam into the vagina through a nozzle. Even those intelligent people who, for one reason or another, dislike or cannot be bothered with what they call "elaborate preparations" may be persuaded to adopt methods that require them to look so little ahead.

In the following respects, however, soluble pessaries and foam-producing preparations fall short of the theoretically ideal contraceptive. They must be introduced a few minutes before sexual intercourse and therefore in a period of sexual excitement; this activity, by focussing attention upon itself, involves an extraneous interference with the continuity of

the sexual process. Moreover, the circumstances in which they are used do not conduce to accurate estimations of whether five minutes (or for the matter of that five seconds) have elapsed between their insertion and sexual intercourse. And, finally, an objection that applies mainly to soluble pessaries, many sensitive people object to the smell of cocobutter and to the soiling of sheets by the substances with which the sperm-destroying chemical is incorporated.

These, in the view of most people, would seem trifling disadvantages. Are there any others more serious? Could it be said with truth that any chemical contraceptive is completely reliable? Can the regular use of soluble pessaries or foam-producing preparations do harm to the woman? Are there any circumstances in which their use is undesirable? These are the questions which most persons who use, or who contemplate using, chemical contraceptives, would like answered, and in the following section I shall state the known facts and the conclusions that may be derived from them as accurately and as simply as I can.

§ 7

Are Chemical Contraceptives Reliable?

I do not believe that any chemical contraceptive yet known is completely reliable. By this I mean that no chemical contraceptive can, by itself, afford

protection against undesired pregnancy to all women on all occasions. Soluble pessaries may be effective ninety-nine times and fail on the hundredth. They may be, and some people have in their own experience found them to be, even more effective than that, but there is still the odd chance that they may fail. It is quite certain that they should not be used as the only safeguard by very fertile couples, or by couples who have sexual intercourse very frequently. Nor are chemical pessaries or tablets to be recommended (except in conjunction with other contraceptives) to women with a short vagina or a fallen womb. In these women it is more likely than in others that a certain amount of semen will be deposited directly within the cervix, and so not be acted upon by the materials contained in the pessary or tablet. Even in anatomically normal women, there is just the chance, especially if during sexual intercourse the penis is in contact with the cervix, that active spermatozoa may be emitted straight into the womb. The likelihood of such an event is all the greater if it is true, as some authorities believe, that during the sexual orgasm the os dilates and the womb exercises a suction action, by means of which it draws the semen and other contents of the vagina into its cavity. Even so, it is conceivable that together with the semen there may be aspirated a sufficient amount of sperm-killing substances to destroy the spermatozoa that have found their way into the womb.

The question, it will be seen, is a difficult one and without further evidence I should not care to dispute the general truth of the following statement which appears in the second report of the International Medical Group for the Investigation of Birth Control: "It may easily happen (assuming that uterine suction takes place), particularly if the orgasms of the woman and the man coincide, that active spermatozoa in large numbers may enter the uterus before the spermicidal substances placed in the vagina can act upon them. If, on the other hand, no such sucking or dilating action takes place, and if the spermatozoa enter the uterus by means of their own intrinsic powers of mobility, it is theoretically possible that a really effective spermicide placed in the vaginal vault might of itself prevent the entry of spermatozoa into the uterus, and prove a satisfactory contraceptive. . . . It is here submitted that there is at present no question of greater importance to those who feel the need for improving contraceptive methods than this one. If it should prove that in human beings the os does not dilate, and that the contents of the vaginal vault are never aspirated into the uterus, it is possible that

¹ Up to the present five of these reports have been issued. They are published under the auspices of the Birth Control Investigation Committee, and aim at giving an impartial summary of statistical and medical information about birth-control as it becomes available in different countries. The current issue, price 2s., is obtainable from the Secretary, National Birth Control Association, 26, Eccleston Street, London, S W. 1.

a contraceptive method as nearly perfect as possible may be achieved by means of a spermicide alone ”

§ 8

Are They Ever Harmful?

In reply to the second question Can the regular use of chemical contraceptives do harm to the woman?—I would suggest that there is no better proof of their harmlessness than the failure of opponents of birth-control to provide any evidence that will bear five minutes' examination for their opinion to the contrary. I have gone closely into this matter and examined a large number of the annual reports in which medical officers of birth-control clinics summarise their observations and conclusions. If harm resulted from the use of contraceptive appliances, these doctors would very soon hear about it from their patients, yet, apart from a complaint from a small number of women that this or that pessary or tablet causes smarting of the vagina—whereupon some other kind of pessary or tablet is prescribed, and in most cases all is well—clinic doctors have no experience of any disability, local or general, that may be connected with the use of chemical contraceptives¹

¹ A paper by Drs H M Carleton and H W Florey on the “Effects of Common Contraceptives on the Vaginal and Uterine Mucosae,” published in the *Journal of Obstetrics and Gynaecology* (1931, p 550), is frequently cited as supplying evidence of the harmfulness of some of the more widely used preparations. These authors performed experiments on rabbits

Are there any circumstances in which the use of soluble pessaries, or foaming preparations, is inadvisable? There are. Newly married people should never use them. They all contain compounds that can produce the most agonising smarting of a tender vagina. After the vagina has healed completely, they may be used with impunity.

§ 9

METHOD 2: RUBBER OCCLUSIVE PESSARIES

The next contraceptive appliances to be described are rubber occlusive pessaries or caps. These appliances are manufactured in various shapes, but the two shown in the diagram illustrate the chief varieties.

The first, looking like a small wash-basin, is

cats and dogs, giving them a series of daily injections (in some cases for nearly one hundred days) of proprietary contraceptives and observing the effects on the mucous membranes of the vagina and womb. Most of the preparations produced no ill effects; but in some of the animals intense local inflammations followed frequent injection of quinine and urea tablets and a German preparation called Spetonex. The worst that may properly be concluded from these experiments is that the *daily* use of these chemical contraceptives over considerable periods of time is attended with some risk, but against this finding, which after all cannot affect a very large proportion of people, is the fact that at one of the largest birth-control clinics in the United Kingdom quinine and urea hydrochloride tablets were prescribed extensively for some years without producing a single case of local injury. It should be added that substances having far greater spermicidal power than that of quinine and urea hydrochloride have proved harmless both to human subjects and to experimental animals.

known as the Dutch pessary; the second, fitted with a thick rim and shaped something like a bowler hat, as the cervical cap¹

Principle of the Method

It will be readily understood that if either of these pessaries is placed in the vagina in such a position as completely to cover up the cervix, it can act as an effective barrier between emitted semen and the



FIG 4 —“DUTCH” PESSARY



FIG 5 —CERVICAL CAP

womb. Semen may be deposited in the vagina, but as long as the barrier remains complete no fertilisation can occur. In practice such a complete obstruction to the semen is unattainable, but the appliances are still effective if they prevent the discharge of semen into or near the opening of the womb, and thus give time for a chemical contraceptive to act.

The principle, therefore, underlying the use of

¹ The Dutch pessary was popularised by Dr Mensinga, of Holland, in the latter years of the nineteenth century, and after him is sometimes called the “Mensinga” pessary or diaphragm. The names “Haire” and “Ramses” are applied to well-known modifications of the original “Dutch” pessary. Cervical caps are sold under a variety of names, of which “Prorace,” “Racial” and “Unique” are the most popular.

both these types of pessary is the same. The only difference in use is that the cervical cap is put on in such a way that it fits completely round the cervix, the cervix dipping, as it were, into the hollow of the pessary; while the Dutch pessary, being much wider, is made so as to shut off the whole of the upper part of the vagina, including the cervix, from



FIG 6—"DUTCH" PESSARY IN POSITION

- a—"Dutch" Pessary
- b—Rim of Pessary
- c—Rectum.
- d—Womb
- e—Cervix in Pessary
- f—Pubic Bone
- g—Vagina
- h—Urethra



FIG 7—CERVICAL CAP IN POSITION

- a—Rim of Cap
- b—Cap
- c—Womb
- d—Cervix in Cap
- e—Pubic Bone
- f—Vagina
- g—Urethra
- h—Rectum

the lower. The diagrams, from which all inessential details are omitted, illustrate each type of pessary lying in its proper position

The method of using the Dutch pessary will be described first.

§ 10

The Dutch Pessary

Dutch pessaries are made in a great range of sizes, and the choice of exactly the right size for each

woman demands a certain amount of skill. Any woman who wishes to make use of this kind of pessary would be far better advised to have it fitted by a doctor, either privately or at a birth-control clinic, than to trust to the directions that are given in this section. The following directions are given only for the benefit of women to whom the services of a doctor are not available, in the hope that they will lose no time in being properly fitted should the opportunity ever offer itself.

Dutch pessaries are sold by some chemists and in most rubber-goods shops. They can be obtained from Messrs. Lamberts (Prorace) Ltd.¹ for 5s each. There are eighteen sizes, ranging from 45 to 90.² As a general rule, I would say that small women fitting themselves should buy size 65; medium-sized women, size 70; and large women, who have had children, size 75. Another rough estimate is that newly married women should fit size 65; women who have had one child, size 70; and women who have had more than one child, size 75 or 80. According to Dr. Hannah M. Stone, Medical Director of the Birth Control Clinical Research Bureau, New York, "an analysis of the sizes most often used shows that they fall between 70 and 80, with 75 as the one size most frequently prescribed in all the clinics."

¹ See footnote, p 56

² These figures refer to the diameter measured in millimetres

To Insert the Dutch Pessary

In order to place the Dutch pessary in position, the woman should either lie on her back with her knees bent, or squat on her heels with her knees bent and feet apart. Holding the pessary in the palm of the left hand in such a way that the dome is pointing *upwards*, she should pinch the rim—which is now lying in contact with the palm—between the thumb and forefinger of the right hand and introduce the pessary, hollow side *downwards*, into the vagina. The rim of the pessary is now in contact with the back wall of the vagina, and along this wall she should push it in a *downward and backward* direction as far as it will go. Finally, with the forefinger of the right hand, she should press upward on the last part of the rim to enter the vagina, so that the front part of the pessary will take up a position in the space behind and supported by the pubic bone (which is the bone situated at the very lowest part of the abdomen). The pessary, if it is of the right size, tends to slip quite naturally into its proper place, and there, as shown in the illustration on page 72, it forms a diaphragm shutting off the upper part of the vagina from the lower

To Determine if the Pessary is in Proper Position

The next step is to make sure that the pessary has, in fact, been put in correctly; and, however skilful the woman may become in inserting the pessary,

she should never on any account omit this precaution. Lying or squatting down, she should press with her forefinger upon the thin rubber of the dome and through this feel for a hard knob-like object, which is, of course, the cervix. She may find that the dome is all wrinkled up, but that does not matter. So long as she can feel the cervix through the rubber it is proof that there is a barrier between the semen and the womb. A further test is as follows. Pressing with one finger on the front of the rim, the woman should bear down slightly, feeling as she does so that she is unable to push the rim beyond the pubic bone. If the pessary is fitting well, the rim will move downwards a little way, and then slip back into place by itself. If the front of the rim comes out below the bone, the pessary is too small. Additional evidence of a good fit is in the fact that once the pessary is in its proper position the woman cannot feel it except with her fingers. Indeed, she can put it in at any time of the day and promptly forget about its presence.

Removal of the Pessary

To remove the pessary, the woman should get into exactly the same position as she found convenient for putting it in. She will then be able to pull it down by means of a finger hooked round the front of the rim, where it can be felt against the pubic bone.

Judging the Right Size

The mere fact that the pessary causes no discomfort, even that it cannot be felt at all, except with the finger, does not prove that it is of the right size. Women who cannot be fitted by a doctor should use a pessary which, as far as they can tell, is the largest they can wear with complete comfort.

§ 11

The Cervical Cap

The cervical cap is sold in three sizes, called 1, 2 and 3: size 1 being small; size 2 medium; and size 3 rather big.¹ My own experience has been that most women using this form of contraceptive can wear size 2 with safety and comfort. Only very small-built women require size 1, and, occasionally, large women who have had several babies are better fitted with size 3. The rims are of three kinds: inflated, spring and solid (The inflated rim is not recommended.) Pessaries of this kind can now be bought in most chemists' shops for about 3s each. The price is one which allows the retailer a profit of about 200 per cent, a state of affairs which is discussed in further detail in the last chapter of this book; but, as a pessary properly looked after

¹ Some manufacturers make four sizes, 0, 1, 2 and 3; but size 0 is suitable for dolls only.

lasts about two years, there is no strong reason for waiting to buy one until the price comes down.

To insert a cervical cap, the woman should assume exactly the same position as was advised for putting on the Dutch pessary. Pressing the rim of the cap between the thumb and forefinger of the right hand in such a way that the dome is pointing *downwards*, she should now introduce it into the vagina, and then push it upwards and slightly backwards with her finger. The cap tends to slip into its position over the cervix just as the Dutch pessary does across *the vaginal vault*. But it is important to make sure that this position has been reached. Exactly the same rules apply as for the Dutch pessary. The woman should—if her fingers are long enough—feel round the rim of the pessary to discover if it is pressing snugly against either the vaginal or the cervical walls. Through the dome she should press with her finger against the cervix. The well-fitted cap causes no discomfort, and, like the Dutch pessary, once it is in its proper position, the woman can feel it only with her fingers.

Removal of the Cap

The cervical cap is often made with a tag of rubber attached to the rim. This tag is supposed to facilitate the removal of the cap from the vagina, but any woman who can insert a cap can remove it without this aid, and as the tag tends to get in the way, I recommend snipping it off with a pair of

scissors. All but exceptionally made women can remove the cap quite easily by assuming the position they found convenient for inserting it, and hooking it down by a finger placed round the rim.

§ 12

Cervical Cap or Dutch Pessary?

Which is better, the cervical cap or the Dutch pessary? Most doctors in this country who have made a special study of contraception, including, as far as I have been able to discover, *all* the doctors working under the auspices of the Society for the Provision of Birth-Control Clinics,¹ are overwhelmingly in favour of the Dutch pessary. The case that can be made for it is indeed a very strong one. Women of average, or even of less than average, intelligence can learn easily how to insert and remove it correctly; the pessary is made in no fewer than eighteen sizes, each varying only slightly from the next, and a doctor with this choice before him is able in most cases to find a pessary that fits the vagina very accurately. Once the pessary is in position the woman cannot feel it; and, during sexual intercourse, neither she nor her husband is made aware of its presence. It is not displaced by the penis or by bodily movement; it does not dam back secretions from the cervix; and, finally, the

¹ See Appendix I, p. 173.

statistics of the clinics show that it is very reliable.

On the other hand, there are two conditions of the female genital tract that render its use unsuitable: a fallen womb, or vaginal walls so relaxed as the result of injuries sustained from previous confinements that no pessary will stay in place.¹

On behalf of the cervical cap it may be said that for any normally formed woman with intelligence enough to understand the simple anatomical facts about the position of her cervix, and with patience and providence enough to use her knowledge properly, it is a very good contraceptive indeed. I admit it is more difficult to insert and remove than the Dutch pessary; on the other hand, to an intelligent woman the initial fitting presents next to no difficulty. It may therefore be held, with some reason, that any woman who is unable to obtain a fitting by a doctor would get just as good results from a cervical cap as from a Dutch pessary.

What then is the case against the cervical cap? I think it was expressed in the statement that it is a good contraceptive for an intelligent, normally formed woman. Many women are not normally formed. Some have an abnormally short cervix; more have a cervix that is scarred or distorted in shape as a result of tears produced in child-bearing.

¹ In such circumstances it is the practice at most of the birth-control clinics to fit a special type of pessary known as the Dumas

In such women not even a skilled doctor could fit a cervical cap accurately; even if he could, he would probably be of the opinion that it was inadvisable to do so. Unfortunately, the woman herself very often has no way of knowing if her cervix is normal or not; a scarred or deformed cervix may produce no symptoms and its presence may be discovered only in the course of a routine examination, indeed, it is found in as many as 50 per cent of the women who go for advice to birth-control clinics. Unless, therefore, a woman is certain that she has no abnormality of the cervix, she would be well advised not to risk an undesired pregnancy by depending on the use of the cervical cap. A useful motto is, "When in doubt, use a Dutch."

Even women with a normal cervix may find difficulty with the cervical cap. If their fingers are short in relation to the length of the vagina they may find it impossible to reach as far as the cervix, and therefore never succeed in putting on the cap and testing its position, except with help from someone else. Some have told me that they had difficulties and uncertainties at the beginning, but that these vanished with a little practice. I have sometimes advised women to shut themselves up in a bedroom and devote about half an hour to putting in and taking off the cap; most of them have found that this half-hour's practice has given them the requisite skill.

§ 13

ARE RUBBER PESSARIES RELIABLE?

A woman who "can't be bothered" to discover if the pessary is in its proper position will almost certainly have "accidents," and decide that birth-control is a delusion. But one is often asked whether complete safety can be guaranteed, even when the pessary is of the right size and has been correctly put on. This is a very difficult question to answer. No pessary, unless it fitted so tightly across the vagina or round the cervix as to injure the tissues, could prevent all spermatozoa from steering their way past the rim and thence eventually to the aperture to the womb. What a perfectly fitting pessary may do, however, is dam back by far the greater part of the semen, and thus permit relatively very few spermatozoa to find their way into the neighbourhood of the cervix. It is highly probable, too, that there is a time factor involved, and that the longer spermatozoa take to reach the opening into the womb, the less capable they are of fertilizing the ovum. Finally, even if the semen is held up for only a short time in the vagina it can all the more certainly be acted upon by the chemical contraceptive used in conjunction with the rubber pessary. It is possible that some of the recorded failures occur in spite of the correct use of the rubber appliance; others indubitably are due to slight but sufficient errors in technique.

Whatever may be the exact truth of the matter, it can be stated definitely that no woman who must at all costs avoid pregnancy should put her trust in a rubber pessary alone. She should use one of the combined methods¹ to be described in the following section and never depend exclusively on the protection afforded by any single contraceptive device. Among the patients of whom I have had personal experience there have been, as far as I have been able to discover, no failures. Most of these patients were, I admit, exceptionally intelligent women and none of them depended on the rubber pessary by itself. Their success may therefore be attributed to the very valuable combination of good contraceptive devices with care and intelligence. The experience at most of the birth-control clinics is that the percentage of failures is very low, and that even among those that do occur a number can be traced to faulty use of the appliances, or to downright carelessness.

It must be realised that there is no magic in a pessary. It does not prevent conception because it happens to be lying about somewhere in a drawer, or even because it is floating about somewhere in the vagina. It must be inserted properly and looked after in the manner presently to be described, or failure is practically certain to occur.

¹ Combined methods are those in which more than one contraceptive device is used at a time, for example a rubber cap and a soluble pessary, or a rubber cap, a soluble pessary, and a contraceptive jelly

§ 14

COMBINED METHODS

The occasional failure attending even the correct use of a good chemical contraceptive (i.e. soluble pessary or foam-producing preparation), or of a well-fitting rubber pessary, has led to the adoption of methods involving the use of more than one contraceptive at a time. The most widely used combined methods are the following:

- (a) Dutch pessary or cervical cap, with a soluble pessary or foam-producing preparation.
- (b) Dutch pessary or cervical cap, covered with a contraceptive jelly—that is to say, a jelly containing sperm-killing compounds.
- (c) Dutch pessary or cervical cap, with a contraceptive jelly and a soluble pessary.
- (d) Combination *a*, *b*, or *c*, followed some hours later by a vaginal douche.
- (e) Rubber sheath (see page 96) smeared with contraceptive jelly.
- (f) Rubber sheath together with a soluble pessary or foam-producing preparation.

There is much in favour of combined methods: they offer an extra line—or extra lines—of defence, and the added sense of security associated with their use may be of immense psychological benefit. On the other hand, many careless and improvident people will not adopt them. It is all such a ritual,

they say; and apparently, to gratify their anti-ritualistic sentiments, they are prepared to pay the price of an unwanted baby. In point of fact, they would find, if they were prepared to give it a trial, that the "ritual" can be carried out in less time than it takes to clean the teeth; and, certainly, that it cannot compare in elaborateness with the ceremonial cleansing with which many of them find it so necessary to open each day.

§ 15

Contraceptive Jellies

Some of the most widely used combined methods involve the use of contraceptive jellies. These are preparations in which one or more spermicidal substances are incorporated in a water-soluble base. The special advantage claimed for them is that their efficacy depends neither on the temperature nor on the humidity of the vagina. As soon as they are placed in the vagina, the water-soluble base, if it has the right consistency, spreads over and about the area to which it has been applied and releases the spermicidal compounds for action. One of the best preparations of this kind is prepared to a formula recommended by the New York Clinical Research Bureau. Its composition is as follows:

Lactic Acid	1 per cent
Boric Acid	5 per cent
Glycerite of Starch	94 per cent

Lactic acid is a sperm-killing, or, at any rate, a sperm-paralysing, substance normally present in the vaginal secretions; and, in the amount included in the above formula, it does not usually give rise to irritation. The glycerite of starch has no destructive effect on rubber and is believed to combine within itself the qualities of a mechanical and a chemical contraceptive.¹

Contraceptive jellies are used in two ways:

(a) They may be injected into the vagina from a collapsible tube fitted with a suitable nozzle (four or five inches long), and thus serve the purpose of a soluble pessary or foam-producing preparation. The method is to insert the nozzle along the back wall of the vagina as far as it will comfortably go, squeeze some of the jelly out of the tube, slightly withdraw the nozzle (say, an inch or two) and, finally, squeeze some more jelly in front of the cervix. In one American clinic the use of contraceptive jelly alone is advised as the best method; but, although properly applied it gives a high expectation of success, most clinic doctors recommend its use in conjunction with other contraceptive devices.

(b) The most popular way of using contraceptive jellies is as lubricants, especially for rubber pessaries.

¹ Messrs Lamberts (Prorace) Ltd manufacture a lactic acid jelly called "Contraceptalene" This seems to be very efficient, and a 2-oz tube costs 2s 6d A more recent preparation with much to recommend it is G P. Jelly, manufactured by Messrs Guilmont Products Ltd. This contains citric and boric acids and saponin as sperm-destroying substances.

About half an inch to an inch of the jelly is expressed from the collapsible container and rubbed round the rim and over both sides of the dome of the pessary just before it is inserted. As the pessary is pushed up, any excess of jelly is deposited as a sperm-destroying film on the vaginal walls. Jellies may also be used for lubricating sheaths (see page 99).

Women using the combination of pessary with a jelly are well advised to douche (with one or other of the solutions and in the manner described on pages 92 to 95) both before and after removing the pessary. For this reason, and for others presently to be mentioned, some authorities do not recommend the above combination except to women who, for some reason or another—an excessive vaginal discharge, for example—would have to douche in any case. One disadvantage of all methods involving douching is that women of the poorer classes, living in over-crowded houses, very often have nowhere to go for the necessary privacy.

§ 16

Combined Rubber Pessary and Soluble Pessary or Foam-producing Preparation

Obviously, various combinations are possible: Dutch pessary or cervical cap, with Rendell's "Wife's Friend" or Lambert's "Lam-butts";¹ or

¹ See footnote, p 56

one or other of the rubber pessaries with a foaming tablet such as Semori, Speton or Bymeston;¹ or, for the well-to-do, a rubber pessary with PermFoam or Bymeston Foaming Jelly.²

In these combined methods, the woman, wearing the rubber pessary, may place a soluble pessary or foam-producing tablet as high up as possible in the vagina a few minutes before sexual intercourse. Better still, she may put both in at the same time—the chemical contraceptive *above* the rubber pessary so that its forces may be concentrated where they are most needed. For women using the cervical cap, Messrs Lamberts (Prorace) Ltd. have devised what they call the "Bymeston Check Pessary,"³ inside which is fitted a small receptacle for a contraceptive tablet or pessary. If the combination used is of a rubber pessary together with PermFoam or Bymeston Foaming Jelly, the latter should be introduced into the vagina a few minutes before sexual intercourse

§ 17

The Routine of Combined Contraceptive Methods

- Whether the pessary used is of the Dutch or cervical type, to secure the results aimed at the following instructions must be carried out consistently:

- (1) The pessary may be put in at any time of the day or night—preferably in the afternoon. No

¹ See footnote, p. 59 ² See footnote, p. 61. ³ Price 5s

discomfort or other physical sensation should be experienced from wearing it

- (2) If the bowel has not been emptied there is a risk that the pessary may become displaced; regular bowel habits are a good aid to contraception.
- (3) Before its insertion the pessary must be thoroughly washed with soap and water and— if the method described in Section 15 is adopted—covered with jelly; otherwise the routine described in Section 16 should be followed. Its position should *never* be taken for granted, but must invariably be tested in the manner described on pages 74 and 77.
- (4) The pessary should not be removed less than eight hours after sexual intercourse; it may be left in place for twelve hours. After this it must be removed to allow any natural secretion from the womb to escape. It may, if required, be put back three or four hours after removal.
- (5) Before and after removing the pessary, the woman may, as an added precaution, douche with a pint of soapy water, or with one of the solutions to be described in the following section. But for reasons presently to be given douching is not always recommended as a routine practice.
- (6) Immediately after it has been removed, the pessary should again be washed with soap and water, dried thoroughly, powdered with

talcum or French chalk, and put away in a box till it is needed again.

- (7) The pessary should never be worn during the monthly period or when a period is expected. Should the period come unexpectedly, the woman must douche at once and remove the pessary.
- (8) The pessary must be regularly examined against a bright light to make quite certain that the rubber has not perished or developed even the smallest hole. If there is any doubt at all, it is cheapest in the long run to get a new pessary.
- (9) A slight, occasional, white, inoffensive discharge from the vagina is generally of no importance. *But no woman with a copious, or coloured, or offensive vaginal discharge should ever wear a pessary except after examination and advice from a doctor.*

§ 18

When to Douche

One is often asked if douching is advisable as an additional precaution when the pessary is used in conjunction with a chemical contraceptive. Nearly all the birth-control clinics in the United Kingdom and America say yes; but there is a minority in which patients are told that if they leave the rubber pessary in place for eight hours or more after sexual inter-

course they need not douche except for purposes of cleanliness. The objection to douching as a regular practice is that the vagina contains certain bacteria which help to keep it in a healthy condition and which douching washes away. And indeed one of the worst cases of inflammation of the vagina I have ever seen was in a woman who, for purposes of cleanliness and contraception, douched every day.

In a matter as controversial as this it is well to be guided by the experience of the clinics. A number of clinic doctors state that a large proportion of their failures have been traced to omission to douche; some say that pregnancy has occurred in women who have omitted this precaution on one occasion only. It seems hardly necessary to add that the need for an added precaution is all the greater in the case of women who have had to fit their own contraceptive appliances and to learn their technique from a book instead of from a doctor.

The circumstances in which douching may help to secure successful birth-control are the following.

- (1) When it is used as a routine precaution in combination with a mechanical occlusive or a chemical contraceptive or both. Thus, when one or other of the combined methods described in Section 14 (p. 83) is adopted, a douche may (and, some say, should) be taken on removing the rubber pessary. The approved plan is to douche with one pint of fluid before

and one pint after the pessary is removed. The effect of the irrigating fluid is to distend the vagina and wash away semen, vaginal and uterine secretions, and what is left of the substance (e.g. the soluble pessary or jelly, or foam-producing preparation) that has formed part of the contraceptive combination. It also has a spermicidal action, particularly if an efficient sperm-destroying substance forms part of the douching solution.

- (2) When, after sexual intercourse, there is doubt as to whether the rubber pessary was in good position or not. In such cases the sooner the douche is taken the better. Similarly, if a rubber sheath¹ used for contraceptive purposes tears during sexual intercourse an immediate douche is imperative.
- (3) When, for any reason, such as the unexpected advent of a monthly period, the rubber pessary has to be removed within eight hours of sexual intercourse. The douche should then be with one pint of fluid before and one pint after removing the pessary.

Immediate post-coital douching (as the sole contraceptive precaution) is an almost useless and certainly an objectionable practice. Spermatozoa move so quickly—probably at the rate of 3 to 4 millimetres a minute—that in less than two minutes

¹ See page 96

after sexual intercourse live sperms may be found within the cavity of the womb (and thus out of reach of any irrigating fluid). In some cases, moreover, semen is deposited straight into the cervical canal; and some of this would be inaccessible to the fluid even if the douche were taken without a moment's delay.

How and with what to Douche

The following douches are recommended for contraceptive purposes:

- (1) *Warm Water* —The advantage of using ordinary clean water is that this is less likely than a medicated solution to destroy the bacteria on which (as was suggested earlier in this section) the health of the vagina largely depends.
- (2) *Warm Soapy Water*.—Weak soap solutions have a very powerful sperm-destroying action, so powerful that according to Dr. J. R. Baker "the fall in the birth rate among the wealthier classes during the latter half of the nineteenth century may be correlated with the installation of proper hot-water systems in the houses of the rich at that time"¹ He makes the further interesting suggestion that the efficacy of rubber pessaries may sometimes depend on the fact that they "are often placed

¹ "The Spermicidal Powers of Chemical Contraceptives," *Journal of Hygiene*, April 1931, p 201

in soapy water before introduction into the vagina, so that they may slip in easily." The soap solution may be prepared by stirring a piece of good toilet soap (about $\frac{1}{2}$ " to $\frac{3}{4}$ " cube) in a quart of hot water. Or two tablespoonfuls of a flaked soap such as Lux may be used instead. Cheap household soaps should not be used for this purpose; solutions prepared from them may sting the vagina.

- (3) *Vinegar and Water*—Two tablespoonfuls of vinegar to a quart of warm water is a favoured douching solution. Vinegar is a fairly efficient spermicide.
- (4) *Lactic Acid and Water*.—A teaspoonful of lactic acid to a quart of warm water is sometimes recommended, the advantage claimed being that lactic acid is normally present in the healthy vagina. The solution is not very strongly spermicidal, however.
- (5) *Other Douches*—Among the solutions prescribed are alum, half a teaspoonful to a quart of water; common salt, a tablespoonful to a quart of water; lemon juice, one or two tablespoonfuls to a quart of water. In every case the water should be warm.

The whirling spray (illustrated on page 94) is the most efficient instrument for douching the vagina.¹ It consists of a rubber bulb which serves as a

¹ Whirling sprays are sold at fancy prices. Messrs Lamberts (Prorace) Ltd sell a good kind at 5s 6d, which is reasonable.

receptacle for the douching solution (and holds about half a pint at a time), a stout nozzle, and an adjustable rubber shield which fits round the nozzle and can be moved up and down its length. When the nozzle has been introduced into the vagina, the adjustable collar should be pressed closely against the vaginal opening in order to prevent the premature outflow of the douching

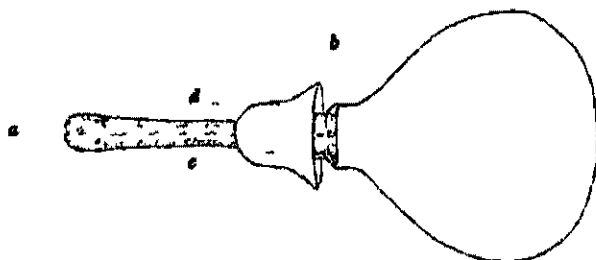


FIG 8 —WHIRLING SPRAY

- a—Bakelite or Vulcanite Nozzle
- b—Bulb
- c—Junction of Nozzle and Bulb
- d—Rubber Shield

fluid. It is now possible, by squeezing the bulb, to introduce the douching fluid under sufficient pressure to distend the walls of the vagina, flatten out the creases of the lining membrane, and come effectively into contact with the semen, vaginal secretions, etc., which it is designed to wash away. One precaution is vital. the bulb should *never* be squeezed with the whole hand but only between the thumb and finger. Otherwise fluid may be introduced at such great pressure

that some of it will find its way past the external os into the womb itself, and even into the Fallopian tubes and abdominal cavity.

If the appliance used is an ordinary douche-can the top of the solution should be not more than two feet above the vagina;¹ and (in the absence of a rubber shield) the vaginal opening should be pressed closely round the nozzle while the fluid is being injected.

The squatting position is very comfortable for douching, but some women prefer to take it lying down. The important thing is that the irrigating fluid (each portion of which should be retained for a few seconds before being allowed to escape) should sufficiently distend the vaginal walls; the position adopted by the woman hardly matters.

§ 19

Summary

The method of combining the use of a rubber pessary with a chemical contraceptive is unquestionably the best available. The fact that the pessary can be inserted in the afternoon, and that its presence is not felt either by the wife or the husband, means that the method does not interfere with the ideal continuity of sexual intercourse. It is, moreover, cheap, harmless, and, properly used, efficient.

¹ *The Technique of Contraception*, by E M Matsner, The Williams and Wilkins Company, Baltimore

Its disadvantages are that it needs just enough care in its application not to be fool-proof, and that there are women too casual to remember that a pessary needs removing regularly for hygienic purposes.

§ 20

METHOD 3: THE CONDOM OR FRENCH LETTER

The Condom or French Letter is a sheath of very thin rubber (occasionally of other materials) which is rolled on to the male organ, called the penis, just before sexual intercourse. The emitted semen is retained in this sheath and so prevented from entering the vagina. It must, I think, be admitted that the condom suffers from a number of serious disadvantages. When in position it prevents the ideal contact aimed at between the man and woman; women frequently find it unsatisfactory not to feel the semen, and some authorities believe that absorption of semen by the vaginal walls is essential to the woman's complete health and well-being. Moreover, since the French letter has to be rolled on just before intercourse, it has, like the soluble pessary, the disadvantage of interrupting, by an unromantic irrelevancy, the continuity of sexual emotion; and the price is quite ridiculous

Some Advantages of the Condom

On the other hand, the condom is the contraceptive of choice when, for any reason, the respon-

sibility for precautions must rest on the man. Some men definitely prefer to take the initiative in this as in all other matters pertaining to sexual intercourse; some regard methods for which the woman is responsible as "unladylike," worse, as offering both the inducement and the facilities for marital infidelities. Over-excitabile young men with a liability to ejaculate precipitately favour the condom as a device for blunting the stimuli to the penis, and thus enabling them to enjoy more protracted sexual intercourse.

Moreover, a good-quality condom is safe. Used according to the directions to be outlined in the next section, it gives a higher expectation of success than any other contraceptive device. It has, too, what is in some circumstances the added advantage of offering some protection against venereal disease. The counsel of perfection is that no person afflicted with any of the venereal diseases should engage in sexual intercourse until a doctor has pronounced the condition completely cured; it is a crime against the partner in sexual intercourse and the race. But in the course of medical practice one learns that among infected persons there are some who cannot be influenced by moral considerations when their sexual life is in question. In such cases one must insist that intercourse should on no account take place unless the man puts on a condom beforehand.

The condom is particularly valuable as a method

for couples who decide that they must practise birth-control at the very beginning of married life. It is only exceptionally that virgins can be fitted with rubber pessaries; and the objection to chemical contraceptives for the newly married has already been pointed out. Newly married couples, therefore, may use the condom during the first few weeks of marriage, substituting a rubber pessary as early as possible.

I cannot too strongly state the view, however, that the ideal time for a woman to learn birth-control is a few weeks before her marriage. With the help of an experienced and tactful doctor she can then learn how to stretch the vagina gradually and without discomfort, so that her first experience of sexual intercourse may not be marred, as that of many women is, by physical pain. Moreover, when the vagina is stretched the doctor can easily fit, and teach her to insert, a Dutch pessary, admittedly a very small one, but big enough to serve during the first weeks of marriage.¹ After a few months, when, following the establishment of a regular sex life, the vagina has become permanently wider, she will need a larger pessary and therefore have to consult her doctor again. I may add that successful contraception demands a continuous relation between patient and doctor. Every woman who can afford to do so should consult her doctor at least once a year to make sure that her contra-

¹ Sizes 50 to 65 are usually found suitable

ceptive appliances are still well-fitting and adapted to her needs.

Correct Use of the Condom

To use condoms properly the following precautions should be taken:

- (1) The popular practice of carrying them about in a pocket-book is to be deprecated. Whatever may be the cause (warmth of the body, or rough handling), it tends to deteriorate the very delicate rubber and make the condoms unreliable. They should be kept in a drawer in a cool room.
- (2) A condom should always be tested before use. An unreliable condom will snap if stretched out sharply between the two hands; moreover, the presence of any tiny hole can be determined by blowing out the condom or by filling it with water. If even the smallest hole is found the condom must be rejected.
- (3) There is less interference with sexual sensation if, before the condom is rolled in place, the penis is slightly lubricated with Contraceptalene or K. Y. Jelly.
- (4) Before putting on the condom about three-quarters of an inch should be unrolled and the air expelled from it by squeezing with the fingers. This precaution will ensure that an overlap of sheath is left beyond the tip of the

penis. If the condom has a teat-end the air should be expelled from this, but there is no need to unroll an additional length.

- (5) When the condom is in place, the outside should be lubricated in exactly the same way as the penis.
- (6) The condom must be put on before the penis comes in contact with the vagina. Many failures attributed to the use of this method result from the practice of putting on the French letter not as a preliminary to sexual intercourse but just before ejaculation of the semen. In such circumstances there is obviously a risk of impregnating the female by means of the small drop of spermatozoa-containing semen that so often appears at the tip of the penis during sexual excitement.
- (7) The condom should be examined after sexual intercourse. If a flaw is found in any place a vaginal douche should be used at once
- (8) A few minutes before sexual intercourse, the woman should insert a soluble pessary or a foam-producing preparation as high as she can reach in the vagina.
- (9) After use the sheath should be washed carefully, dried on a very soft towel, powdered with French chalk or talcum powder, and put away. The sheath should be put away flat, not folded. It should be borne in mind that grease causes rubber to deteriorate very

quickly; if, therefore, the chemical contraceptive used with the condom has a greasy base (a soluble pessary for instance) the condom should not be used more than half a dozen times. Many couples, for aesthetic reasons, prefer to use each condom once and once only.

The so-called "skin sheaths" made from animal gut are not recommended. Their one advantage is that they are very thin; on the other hand, as they cannot be rolled, they are difficult to adjust, and they are unreliable. In his work on *The Comparative Value of Current Contraceptive Methods*, Dr. Norman Haire states that he ordered twelve skin sheaths from a good firm, and found on examination that each without exception contained one or more holes.

Condoms may be bought from most chemists, from some barbers, and at all rubber-goods shops; but it is advisable to obtain them only from firms that sell them in large numbers. The rubber from which the sheaths are made deteriorates fairly quickly, and retailers who do only a small trade may have stocks on their hands for some months, or even years, before they can finally dispose of them. Reputable manufacturers could do much to protect the public by stamping every sheath or its container with the date of manufacture and a warning as to the period within which the sheath may safely

be used. Anyone finding the prices of condoms prohibitive may buy them from Messrs Lamberts (Prorace) Ltd., whose charges appear to be reasonable. They sell a reliable kind at 4s. per dozen

§ 21

A METHOD FOR EMERGENCIES

For the woman in the wilds, for emergencies, for use in cases in which a rubber occlusive device cannot be fitted or retained, the following method may be recommended.

A piece of cotton wool just big enough to fit across the upper part of the vagina should be pressed into the shape of a pad. The right size can only be learnt by experience; for the average woman it is about $2\frac{1}{2}$ inches in diameter; but at first it is better to err, if at all, by using too much rather than too little. The best cotton wool for the purpose is the kind that is sold in rolls in chemists' shops. The pad, thus prepared, should be dipped into a solution made of vinegar and water in equal parts, squeezed till it stops dripping, but not so vigorously as to let the cotton wool get hard, smeared with a little vaseline (or other lubricant), and then pushed as high as possible into the vagina. If the pad is the right size, the woman cannot feel it except with her fingers. It is desirable, too, to test the position of the pad by feeling for the cervix. If the pad is in

place it will cover this structure, which will thus be out of reach of the examining finger.

This home-made pessary can, of course, be used in conjunction with other contraceptive devices; for example, with soluble pessaries or foam-producing preparations. It may be inserted several hours before sexual intercourse, but should be removed eight to twelve hours after and burnt or otherwise suitably disposed of.

§ 22

WHICH METHOD TO ADOPT

I do not pretend that the contraceptive methods described in this chapter are perfect; but they are the best at present available, and they are varied enough to meet the needs of the great majority of people. Before long, better methods may be forthcoming; indeed, as I shall try to show in the next chapter, researches on which such methods will be based are being furthered by important scientific organisations in England and the United States. Meanwhile, it is important that people should get the best use out of the methods at their disposal, and for the guidance of those who, faced with the alternatives of using soluble pessaries, rubber caps, combined methods, or sheaths, find it difficult to decide which is most suitable, I would make the following suggestions.

No woman who at all costs must avoid another

pregnancy should put her trust in any single contraceptive device. She must always use one of the approved combinations of devices: for instance, a Dutch pessary with a contraceptive jelly, followed 8 to 12 hours later by a douche; or a sheath lubricated with contraceptive jelly together with a soluble pessary or foam-producing preparation.

Married people who wish to practise birth-control, but are prepared to take a chance of failure, may depend on the use of a rubber pessary or of a chemical contraceptive alone. If their only purpose is to ensure a proper spacing between the births of their children, they may find even a single contraceptive device disappointingly efficient and have to stop practising birth-control for a time. Or they may contribute to the advancement of knowledge by volunteering to "test" one or other of the new contraceptives that are being studied under the auspices of the Birth Control Investigation Committee¹

For couples who want security but are not prepared to pay for it, who "cannot be bothered" with what they regard as complicated methods, it is better to recommend a simple though imperfect method that they might possibly use than a more effective but also more complex method that they would certainly neglect. It is true that even soluble pessaries or foam-producing preparations have to

¹ Information may be obtained from the Secretary of this Committee, 26, Eccleston Square, London S W 1

be removed from their box and carefully inserted into the vagina, but for the present there is, I have to confess, no simpler procedure that could conscientiously be recommended.

For most couples the Dutch pessary together with a chemical contraceptive is more suitable than the sheath. It is the least obtrusive of all contraceptive devices; it places the bulk of the responsibility on the partner who must suffer most if the precautions fail, moreover, used with care and intelligence it gives a very high degree of security. According to one statistical study¹ the chance of failure is just over 1 per cent. This figure does not express the chance of the method failing each time it is used, but the chance of its failing some time in the user's period of reproductive life.

To you and me these advantages may appear far from negligible, but some people are harder to please. There are women who profess to dislike this preparedness, seeing in the act of inserting a rubber pessary in the vagina an invitation to sexual intercourse, which they are too refined, too ladylike, to issue. Moreover, this wanton act carries its own penalty with it; for what woman so equipped can be sure whether her husband is wooing her because he wants her or because he is too kind to let her preparations be wasted; or can fail to be humiliated if the implied invitation is after all turned down?

¹ Fourth Report of the International Medical Group for the investigation of Contraception, 1931, pp 35 and 36

Is not wooing a mockery when the lover has this tangible evidence of an assured victory? These are the women who "submit" to sexual intercourse, who "give themselves" to their husbands, even "suffer worse than death," perhaps in these ordeals taking a melancholy, a masochistic, pleasure that compensates them in part for the obscenities they have to endure.

Birth-control must cater no less for them than for other women; as it must for men who prefer their wives like that. These men, it need hardly be said, do not themselves object to sexual intercourse; far from it; but it is, in their estimation, a manly pleasure, one in which women must, indeed, by a deplorable necessity, have some part, but which no pure woman should ever enjoy. They are probably right in believing that their own wives find in sexual intercourse a conjugal duty rather than a pleasure. Inevitably, however, they feel that the responsibility for preventing pregnancy must rest on the stronger, less refined partner. For such couples the sheath is to be preferred in all circumstances to the rubber pessary. The woman does not then degrade herself by seeming to invite a rape; the precautions are in the control of the partner who takes what pleasure there is in the sexual experience; and both of them, I hope, are quite happy.

Needless to say, the condom has other uses: at the beginning of married life, for instance; for couples of which the male really has more sense of

responsibility than the female; for those who are unable to use occlusive devices (as when, after too much child-bearing, the woman's vaginal walls are too lax to retain them); for couples of which one or other member is infected with a venereal disease; for making possible more protracted sexual intercourse; during travel; in all these circumstances the sheath may be the most efficient and most desirable contraceptive device. It is a significant fact that many normal, well-mated couples, having tried a number of birth-control methods, prefer the sheath as the most completely satisfactory of them all.

§ 23

WHAT TO AVOID

A final word about definitely bad methods. "Safe period" intercourse and *coitus interruptus* may be dismissed together as unreliable, unaesthetic, physiologically unsound, and disruptive of marital health and happiness. All stems, studs, wishbones, whether made of gold or even more precious materials, are dangerous; their use has led to death from general peritonitis, septic abortion, and supuration of the pelvic organs. No reputable authority on birth-control either in the British Isles or the United States recommends or fits these devices

Many women continue breast-feeding for longer than is good for their infants in the belief that

while they have a child at the breast they cannot conceive afresh. This belief is not founded on fact. Conception can and does occur in lactating women, and may do so even before the menstrual periods have been resumed.

Perhaps the most tragic of all these contraceptive makeshifts, certainly the most hopelessly ineffective, and the most destructive of marital happiness, is "holding back"—the expedient by which the woman deliberately prevents her own orgasm under the impression that by so doing she can prevent her impregnation. Dickinson estimates that there is no significant difference in fertility between women in whom sexual intercourse culminates in orgasm and those who remain unsatisfied.¹ There are women who have never had an orgasm in the course of a long married life, but still produce large families for their pains.

¹ *Control of Conception*, page 35

CHAPTER V

METHODS OF THE FUTURE¹

§ I

THE methods described in the previous chapters share a common defect, all of them demand for their correct application an intelligent co-operation on the part of the persons using them. The degree of intelligence may, indeed, not be very great, just the amount, for example, that would enable a person to remove a tablet from a box and insert it in the vagina five minutes before sexual intercourse—but some people find this procedure extraordinarily perplexing. In recent years, therefore, a great deal of research has been carried out, particularly in the United Kingdom and America, designed to discover a contraceptive method that shall be harmless, completely reliable, æsthetically unobjectionable, and at the same time in no way dependent for its successful use on the patient's intelligence or co-operation.

It is possible, of course, to secure this end by means of sterilisation, that is to say, by a procedure which results in a complete loss of fertility in the person to whom it is applied. But for various reasons, sterilisation may be undesirable, contraception

¹ This is a difficult chapter, and no one will come to serious harm for skipping it. It is addressed to readers who already have some knowledge of science.

aims not at making people incapable of ever producing children but at enabling them to have children when they want them. What is needed therefore is a method which will make the woman incapable of having children for a greater or lesser period, according to her needs, but which will in no way impair her health or her subsequent fertility. In short, what is needed is a safe method of producing temporary sterility, or, as it is now called, revocable sterility.

§ 2

SURGICAL METHODS

Surgical methods for producing revocable sterility have proved on the whole to be unsatisfactory. The underlying aim of most of these methods is to make, somewhere within the female genital tract—usually in the Fallopian tubes—a temporary barrier between the ovum and the advancing spermatozoa. A study of the diagrams on page 45 should make it clear that the passage of the ova to the uterus may be interrupted in at least two ways: (1) by dislocating the tubes from the ovaries, and tying their ends out of the way; (2) by tying ligatures so tightly round each tube that not even so small a cell as an ovum could get past them.

If the first of these procedures is successful, ova cast off from the ovaries will drop straight into the abdominal cavity, and fail to reach the opening of a Fallopian tube, if the second is successful, then

ova passing outwards towards the uterus, and spermatozoa passing inwards along the tubes, will get as far as the ligature, but, the path between them being blocked, fail to meet. Neither method would result in permanent sterility, at least in theory; for, by a second operation, the ends of the tubes could be restored to their normal position, or the ligatures could be removed.

The obvious disadvantage of these surgical procedures is that they involve two abdominal operations on the woman, and most sensible persons would condemn even a method that involved opening the abdomen only once. But there is yet another disadvantage: the methods are by no means uniformly successful. Pregnancy has been known to follow their application, ova, it would appear, can find their way into a tube, even though it has been dislocated from the ovary; and no ligature apparently can be made tight enough to prevent the tube from ever reopening, or to render it completely impervious to the passage of ova or spermatozoa.

§ 3

GRÄFENBERG'S RING

In September, 1929, at the Conference of the World League for Sexual Reform, held in London, and again in September, 1930, at the International Birth-Control Conference held in Zurich, Dr Ernst Grafenberg, of Berlin, described to large

gatherings of European and American doctors a contraceptive method which to many of those present seemed to provide at least a partial solution of the problem of producing revocable sterility. They are not so sure now.

This method, described shortly and without technicalities, involves the introduction within the cavity of the womb of a small flexible ring made of coiled silver wire. This appliance, which is generally known as Grafenberg's ring, is made in five sizes, ranging in diameter from one and a half to three centimetres, and the practitioner, having chosen the appropriate ring, inserts it by means of a specially designed set of instruments, so that it lies within the uterus, well above the cervical canal. With such a ring inside her, the woman's chances of conceiving are very small. Dr. Grafenberg, reporting on a series of 600 cases, stated there had been only 1.6 per cent of failures, adding that this figure could be still further reduced if a chemical method were used as well. The ring may be left inside the uterus for an indefinite period, and, catastrophes apart, the present practice is to leave it in as long as it is needed, re-examining the woman once a year to make sure that the ring is still in place, and that no untoward symptoms have developed.

§ 4

Grafenberg's method is out of favour; many, perhaps most, of the practitioners who acclaimed

it a few years ago have now abandoned it; some use it occasionally, but with considerable misgivings; only a few continue to support it with undiminished (or hardly diminished) enthusiasm as the contraceptive method of choice for all patients to whom it is applicable.

Yet, on paper, a very strong case for the method can still be made out; at least, a strong case for further investigating its possibilities and limitations. Its supporters claim, in the first place, that, unlike most other methods, it depends for its success far more on the doctor's skill than on the care and intelligence of the patient. Admittedly there are some failures, a very few; but what other method is there that succeeds in over 98 per cent of cases without any effort whatever on the patient's part? Admittedly, too, for the best results it is necessary to use another contraceptive, a soluble pessary, for instance, at the same time. But surely, say the exponents of the method, the combination of Grafenberg's ring with a soluble pessary throws far less trouble and responsibility on the patient, yet gives her far greater security against unwanted pregnancy, than any of the combinations of contraceptives recommended in the birth-control clinics. It is true that the woman has to see her doctor once a year, but that if anything is an advantage of the method, it is a good thing that women, even healthy women, should be examined at regular intervals, and once a year is by no means too often.

Furthermore, the method reduces the woman's fertility for just as long as she is wearing the ring, and no longer; indeed, when the ring is removed the woman may be found more fertile than before. In this connexion it is worth recording that Grafenberg's ring has been used (in some cases apparently with success) in the treatment of sterility associated with immature development of the womb; and at the same time (probably by stimulating the womb to develop normally) has mitigated such correlated symptoms as painful, scanty, and irregular menstruation. On theoretical grounds it might have been expected that the ring would actually cause pain or interfere with normal menstruation, in fact, however, after the first few days it gives rise neither to discomfort nor to menstrual disturbances

§ 5

Objections to Grafenberg's Method

What are the defects of Gräfenberg's method? In the first place, it can be applied only to women whose genital tract is free from even the smallest trace of infection, and who are not liable to excessive bleeding at the monthly periods. Secondly, no conscientious practitioner would place a Grafenberg's ring within a woman unless he knew for certain that she would keep in touch with him, and visit him at regular intervals for a medical examination. These are disadvantages, but not of a serious

kind; they merely set a limit to the number of women to whom the method can be applied. But there is a third, more serious, disadvantage—namely, that a womb containing a ring is liable to be very severely damaged by any infection of the genital tract, gonorrhœa for example, that might be contracted *after* the ring has been inserted. If a woman using Grafenberg's method contracts such an infection, she must have the ring removed at once. In other words, she must regard a vaginal discharge, or bleeding between monthly periods, or a pain in the lower part of the abdomen, as a danger signal and go to her doctor without delay.

§ 6

A theoretical objection to the method is that the ring, by producing chronic irritation of the lining membrane of the womb, may lead eventually to the development of cancer. There would, at first sight, seem to be much reason in this objection; most authorities on cancer are now agreed that, whatever may be the cause or causes of this cancer or of that, chronic irritation does play a very important part in the production of some cancers. It would seem therefore that by placing a silver wire in the womb, and leaving it there for a long period, the practitioner is subjecting the woman to the serious risk of contracting malignant disease. In point of fact, not a single case of such disease has

developed in the very large number of patients in whom Grafenberg himself has fitted the ring, though many of them have worn it for as long a period as ten years. Nor, as far as I have been able to discover, has this disaster occurred in patients fitted by other practitioners. It may be objected that the experience of ten years is insufficient—that in other cancers known to have been caused by a chronic irritation the latent period has been much longer than this. But there is one significant respect in which the lining membrane of the womb differs from those parts of the body in which cancer has resulted from chronic irritation. It is a constantly changing structure, it is shed every month at the menstrual period, and, when menstruation is ended, replaced by a fresh membrane. A ring that is left in the womb for, let us say, a year, would therefore be in contact not with just one single membrane during the whole period, but with a dozen membranes for a period of one month each. No one membrane would therefore be in contact with the ring long enough for chronic irritation to occur. It is on these grounds that Grafenberg explains the freedom from womb cancers of women adopting his method, though he does not suggest, of course, that they are likely to be more immune from such cancers than any other women.

The objection that the presence within the womb of a foreign body is likely to lead to infection would seem to be equally groundless. It is well known that

infection of the womb has resulted from the use of contraceptive devices placed in the cavity of the cervix, and partly in contact with material in the vagina. In such circumstances the contraceptive device has acted as a ladder up which germs in the vagina were able to travel into, and infect, the womb. But, except at the moments when it is being inserted or being removed, Grafenberg's ring is never in the vagina at all. It is placed in the cavity of the womb, well above the cervix, and every care is taken that no germs shall be introduced with it. According to supporters of the method, therefore, there is no reason to anticipate that it will cause infection of the womb; and they criticise very strongly the case reports (published in medical journals) that have been adduced as tending to the opposite conclusion

§ 7

Recent studies on the changes produced by the ring on the lining membrane of the womb suggest that Grafenberg's estimate of the risk of cancer from his method may have been too optimistic.¹ (This, by the way, is not a matter in which it is better to look on the sunny side.) In experimental animals (rabbits and rhesus monkeys) it has been found that, after prolonged contact with Grafenberg's ring,

¹ "Experimental Observations on the Grafenberg Ring Contraceptive Methods," by H M Carleton and H J Phelps, *Journal of Obstetrics and Gynaecology*, vol 40, No 1, page 81

the lining membrane of the womb flattens out and in many cases undergoes atrophy; and, furthermore, that silver from the ring is deposited deep down in the lining, mostly in the spaces between the cells that compose it. More serious still, the chemically changed rings have been found to be very brittle and thus liable to break into fragments in the cavity of the womb. It is difficult to resist Lord Horder's conclusions from these observations, that "a satisfactory solution of the practical problems of contraception could hardly be in the production of prolonged irritation of the uterine cavity"; or Dr. Carleton's own view that there is at least a potential danger of cancer "in introducing into the uterine cavity a foreign body which is apt to undergo both chemical changes and physical fragmentation."

But the case against Gräfenberg's method does not rest entirely on such (perhaps problematical) catastrophes. In some cases the ring is ejected from the womb, often without the patient's knowledge; in some it produces uterine bleeding and pain; very occasionally the ring actually embeds itself in the uterine wall; not infrequently it lights up afresh a latent pelvic infection. It must be confessed that some of those who apply the method, including some who have had the most extensive experience in its application, maintain that these and like calamities seem to have passed their own patients by; and there may be much in their contention that discrepancies in the results recorded by different practitioners.

may be accountable for by differences in technique and skill. But there is one risk against which even superior skill can offer no safeguard. Grafenberg's ring exercises its contraceptive action by making the lining membrane of the womb incapable of receiving the fertilized ovum; that at any rate is the most favoured view, it cannot, therefore, afford protection against the rare accident of ectopic pregnancy, that is, of a pregnancy in which the fertilised ovum embeds itself somewhere in a Fallopian tube, or in any part of the genital tract other than the uterus itself.

§ 8

Summary

Out of this conflict of opinion at least one agreed conclusion emerges. Grafenberg's method is still under trial. It presents far more technical difficulties, far more problems, than were apparent when it was enthusiastically acclaimed a few years ago. For these reasons it should only be applied by specialists experienced in uterine surgery. It should never, on any account, be applied to women who cannot keep in touch with the surgeon; and it should be abandoned at once on the development of the most trivial-seeming pelvic disorder. Finally, those who apply the method have a serious responsibility in recording all their cases carefully, and making all their results, good, bad, and indifferent, available in a form from which valid conclusions may be drawn.

§ 9

THE USE OF X RAYS

The methods of revocable sterilisation so far described represent attempts to achieve contraception by mechanical means; they aim at preventing the union of spermatozoon with ovum, or at rendering the soil unsuitable for the reception of the product. It is probable that the next few years will bring improvements in these methods; but equally there are indications that an even more promising line of advance will be in the direction of a direct attack on the ovaries or on the spermatozoa-producing structures themselves. What seems to be needed is some expedient for temporarily arresting the production of mature spermatozoa and ova without at the same time injuring the health of the man or woman. Some recent investigations suggest that such an expedient has been found in the use of x rays; but far more research will have to be carried out before the method of temporary sterilisation by means of x rays will be applicable to human subjects.

It is well known that x rays are able to penetrate the body, and thus to act upon deeply situated organs, which otherwise could be reached only by means of the knife. Furthermore, it is known that a given dose of x rays will affect some of the components of the body more than it does others, in fact, that the cells of the body differ greatly from

each other in what is known as their sensitiveness to x rays. It is on account of these differences that attempts have been made to use x rays in the treatment of malignant disease. The cells of malignant disease, it has been found, are far more readily destroyed by means of x rays than the normal body cells, and the aim of so-called deep x -ray therapy has been to find a dose which would destroy the cells of the malignant growth without at the same time injuring the rest of the body. Experiments have shown that not only malignant cells, but any cells that are growing rapidly and reproducing their kind, are extremely sensitive to the destructive effects of x rays. It might be expected, therefore, that spermatozoa and ova would be very highly responsive to the action of x rays, and experience has shown that this is actually the case. Thus, some years ago it was observed that sterility was common among men engaged in x -ray work, though the condition passed if they took a long holiday from their work. This was, of course, before radiologists realised that they were dealing with a very dangerous agent, and such temporary sterility is not likely to occur among present-day x -ray workers, who have learned the importance of screening themselves against accidental irradiation.

Similarly, it has been found that women may be rendered sterile by exposing their bodies to large doses of x rays, or to repeated small doses, the x rays penetrating the tissues, and then destroying

wholly or in part the highly sensitive ovarian cells. Complete destruction of the ovarian cells results in a permanent sterility; partial destruction, by which is meant destruction of the most sensitive cells and, as it were, paralysis of the less sensitive, results in a sterilisation which passes off after a greater or lesser period.

The problem of producing revocable sterilisation of the female by means of α rays would seem, at first sight, to be comparatively simple, involving nothing more than the discovery of a dose which is neither so big that it will sterilise the woman completely, nor so small that it will fail to produce any effect at all. In actual practice, however, the problem has proved to be very difficult indeed. The dose that will produce temporary sterilisation in any given woman cannot be determined with certainty, an amount of α rays which will sterilise one woman completely producing temporary sterility in another, and no appreciable effect in a third. Nor is it yet possible to estimate even approximately how long the temporary sterility will last, the period in cases observed up to the present having varied between a few months and a few years.

But as well as these disadvantages the method has its dangers: α rays, by acting on certain of the ovarian elements, may bring about a sudden and painful change of life, moreover, if the woman by chance happens already to be pregnant when the α rays are administered, the effects on the offspring

may be disastrous. Dr. Robert L. Dickinson of New York, who has collected records of over fifty children born of mothers irradiated during pregnancy, states that of these children more than a third were seriously defective, about a sixth being idiots or imbeciles. Such disasters, it might be objected, could surely have been averted if care had been taken to ensure that no pregnant womb were irradiated. But there is some evidence, admittedly not conclusive, that even among women who have been irradiated during a non-pregnant period, subsequent pregnancies—namely, pregnancies that have occurred after the temporary sterility has passed off—have resulted in the production of a larger proportion than usual of defective children. I think it must be admitted that the use of this method (about which some continental workers seem to be extraordinarily enthusiastic, though Heaven knows why) cannot at present be advocated, though it is possible that further investigations of the biological action of x rays and radium may yield knowledge whereby the undoubted advantages of methods involving their use will be retained and the disadvantages and dangers eliminated.

§ 10

INJECTIONS OF SPERMATOCYTES

Yet another approach to the problem of producing revocable sterilisation is based on the discovery

that normally present in the blood and genital secretions of women, though in small quantities, is a substance having a lethal action on spermatozoa. The question naturally arises whether it is possible in any way to increase the amount of this substance to such an extent that the woman will for a time become completely immune to the effects of spermatozoa—in other words, become temporarily sterile. In attempting to answer this question many investigators have studied the effects of injecting spermatozoa into the blood of female animals, and some, the effects of such injections on human females. Underlying all these experiments is exactly the same principle as is adopted when attempts are made to protect persons or animals against certain diseases by inoculating them with substances known as vaccines. Before trying to discuss the production of revocable sterilisation by means of injections, I must explain what this principle is.

It is well known that a person who has had an attack of measles, or small-pox, or typhoid fever, is very unlikely indeed to get a second attack, and then only after a long interval. His system, in reacting to the disease, has developed the power of neutralising the responsible germs and their poisons, and this power, it is believed, is due to the formation within his tissue-fluids of special substances known as antibodies. These substances are generated in response to the germs of the disease from which the person has suffered, and remain in his blood

available to deal with any similar germs in the future. Thus, the blood of a man who has suffered from typhoid fever is found to have the power of arresting the normally very active movements of typhoid germs; it contains, in other words, antibodies which, by paralysing the germs, would help the man in his fight against a second invasion. In such circumstances a person is said to have acquired an "active immunity" to the disease from which he has suffered. Fortunately, it is not necessary for people who wish to acquire an active immunity against a disease first to go through the formality of having it; they may be artificially immunised by means of vaccines, which are substances that have been prepared from germs of the disease against which they are designed to give protection. The germs in a vaccine are, of course, modified in a laboratory—usually they are killed—but their purpose is to help the tissues and the blood to manufacture antibodies that would be lethal to the living germs.

But it is not only in response to invasion by germs that the blood forms antibodies; many kinds of substances are capable of producing a similar reaction on the part of the tissues; in every case, however, the antibodies are to a greater or less degree "specific" for the substance that has been injected; in other words, typhoid germs produce antibodies lethal to typhoid but innocuous to the germs of other diseases. In an exactly similar manner

it has been found that spermatozoa injected within the female blood-stream produce in her tissues antibodies (called spermatoxins) having a "specific" antagonism to spermatozoa. It would seem, therefore, that a woman might be "inoculated" against pregnancy, much in the same way as soldiers during the war were inoculated against enteric fever.

§ 11

One interesting fact has emerged from experiments that have been conducted to this end: spermatozoa produce specific antibodies, in the sense that the antibodies are lethal to spermatozoa; but the antibodies produced by the spermatozoa of one animal may be effective against those of another. There is no need, therefore, for the inoculation of the human female, to use the spermatozoa of the human male; indeed, the practical difficulties attending such a procedure would of themselves be sufficient to prevent its adoption except by a few unusual people. Bovine testes, subjected to special treatment in the laboratory, have been found to yield an extract which, injected into the human female, will make her immune to the semen of the human male.

So far, inoculation of spermatozoa to produce temporary sterility has been carried out chiefly in animals; but a few attempts have been made to achieve similar results in human beings. Naiditch, a Russian scientist, who adopted the method in a

series of thirty-two women, has stated that his results were very good. Failure occurred in only two of the series: one, a woman in whom he believed he injected too small a quantity of bovine sperms; and a second, in whom he apparently injected too much.

The treatment lasted a month, during which each of the women received eight to ten injections; after the third injection a few of them complained of feverishness, but symptoms of illness passed off quickly, and, in the long run, the general health of the women and their sexual desire remained unaffected. The resulting sterility lasted only a short time; in one or two of the cases it lasted as long as fifteen months, but in the majority only about three months—a period of immunity that could hardly have compensated the women for the trouble they had in getting it. The method, however, is yet in its infancy, and some of the investigations now being carried out may perhaps yield a technique more effective and easier to apply than that adopted by Naiditch.

Even so, spermatoxin sterilization presents a number of problems that still call for solution. The treatment is highly successful in some cases, less successful in others; what is the range of individual variation, and what tests can be applied in any given case to discover whether the immunity is persistent or wearing off? Again, supposing the treatment fails to sterilise, can it affect

the subsequent offspring? Or when fertility returns in successful cases, is there any danger then of producing defective children? There is reason to hope that satisfactory answers will be found to all these questions, meanwhile there are a number of workers who regard the method of producing temporary sterility by injections of spermatozoa as one of the most promising that have ever been suggested.

The one disadvantage of the method—assuming that the present technical difficulties are overcome—is that some women may dislike the idea of having glandular extracts injected into their bodies. Such an emotional reaction is now common, but it is likely, as time goes on, to become very rare. Already a number of glandular extracts are used in the treatment of disease; some of them are indispensable to modern medicine. Extract of thyroid gland, of the pancreas, of the pituitary gland, of the suprarenal glands—all these are valuable and proved remedies, and even ovarian gland extract is being increasingly used in the treatment of certain disorders peculiar to the female. I imagine that many who will oppose the use of testicular gland will object not because it is a gland, but because they do not like the purpose to which it is being applied. In this connexion it is noteworthy that no objection, on moral or æsthetic grounds, has been raised against the various attempts made in recent years to cure sterility by giving injections of ovarian extract to women who have failed to bear children.

§ 12

HORMONES¹ REGULATING FERTILITY

Temporary sterility may be produced by interfering with the chemical mechanisms of the body which regulate the process of reproduction. To explain how this may be done, I shall begin by describing briefly how fertilisation takes place in the mouse, for in this animal the physiological conditions are not quite as complicated as they are in man.

The ovary of the mature female mouse liberates ova at regular intervals, and continues to do so as long as the creature does not become pregnant. Unfertilised ova die very soon, but in the mouse's body a chemical substance is formed which so affects its behaviour and produces such changes in its genital organs that the chances of fertilisation are very good. Under the influence of this substance, which is known as oestrin² or female sex hormone, the mouse, which otherwise vehemently opposes the male's advances, permits him to approach her and

¹ Hormones are chemical substances manufactured in the body by special organs known as secreting glands. These chemical substances are poured into the blood-stream and, circulating through the body, produce striking physiological effects by stimulating various bodily organs to activity. Examples of hormones are thyroxin, manufactured by the thyroid gland; insulin, manufactured by the pancreas, adrenalin, manufactured by the suprarenal gland, and pituitrin, manufactured by the pituitary gland.

² Oestrin has recently been isolated in chemically pure form.

to have sexual intercourse with her; she is what is known as "on heat," or, to use the more technical term, at the stage of oestrus. Furthermore, her vagina, which ordinarily is too narrow to permit the introduction of the penis, and her uterus, which is incapable of receiving spermatozoa, undergo striking anatomical changes: the vagina dilates, and the uterus secretes so much fluid that, swollen by its own secretion, it resembles a blown-out tube through which the spermatozoa are able to swim towards the waiting ovum. This state of being blown-out does not last long; after a little while the fluid escapes through the vagina and the uterus becomes quite small as it was before.

If, however, fertilisation has occurred, a new series of changes appears in the structure of the uterus. Under the influence of yet another chemical substance the uterus now undergoes what are known as the pregnancy changes—in other words, it elaborates the tissues in which the developing ovum may securely embed itself while it is taking nourishment from the mother mouse and returning waste products into her body. This second chemical substance is also manufactured in the ovary, and is called lutein, or the pregnancy hormone.

Thus the mouse's ovary produces two distinct chemical substances: oestrin or female sex hormone, to which the uterus reacts by secreting fluid and dilating; and pregnancy hormone, to which it reacts by developing the changes incidental to

pregnancy. The uterus can undergo one of these series of changes or the other; it cannot undergo both at the same time. If, therefore, oestrin is injected into the mouse's body when a fertilised ovum is already present, the uterus, instead of forming the tissues in which the ovum can embed itself, will secrete fluid and dilate, with the result that the ovum will fail to develop. On the other hand, if, before fertilisation has occurred, pregnancy hormone is injected, the mouse will spurn the male's advances, and the uterus will fail to secrete and dilate. In these circumstances, even if spermatozoa are introduced into the mouse's vagina artificially by means of a syringe, fertilisation will not occur. The sexual behaviour of the mouse is therefore determined by the relative concentration within its body of two chemical secretions and not, as that of nice human beings, by the operations of free-will and conscience.

Unfortunately—for this is already a very difficult section—the manner in which the chemical secretions of the mouse regulate its sexual and reproductive activities is even more complicated than I have so far explained. The ovary may be regarded as a factory which manufactures by one process the female sex hormone, by another the pregnancy hormone. But the power that drives the machinery in this factory is generated not in the ovary, but at the base of the brain in a small structure known as the pituitary gland. This gland pours into the

blood-stream one substance known as oestrogenic hormone, which, reaching the ovary, supplies the required stimulus to the plant designed to manufacture female sex hormone; and another, which in a similar fashion brings about the production of pregnancy hormone. The former substance helps to create the conditions suitable for fertilisation; the latter, which is formed after fertilisation has occurred, the conditions suitable for the developing ovum. The injection of oestrogenic hormone within the body of the mouse has exactly the same effect as the injection of oestrin itself; it either prevents altogether the occurrence of fertilisation, or interrupts the processes whereby the uterus prepares itself to embed the fertilised ovum. On the other hand, the injection of the second pituitary hormone incites the development of pregnancy changes in exactly the same way as does the injection of the pregnancy hormone itself. It follows that either of the ovarian or of the pituitary hormones will be effective in producing temporary sterility in the mouse, and in similar mammals, so long as whichever hormone happens to be used is injected at the appropriate stage of the sexual cycle.

In human beings the conditions are different in some respects and probably more involved. Although in the human female there are cycles of sexual desire and sexual apathy, there is no definite and clear-cut periodicity as there is in the mouse. The sex hormone of the human female is not re-

quired for the purpose of exciting the complicated anatomical accompaniments of "heat"; actually it is believed to help the pregnancy hormone in preparing the womb for the reception of the fertilised ovum. In the mouse sex hormone and pregnancy hormone work alternately; in human beings they work together

At first sight, therefore, it might seem that in the human female it would not be possible, as it is in the mouse, to counteract the effect of one hormone by injecting the other. But though there is no antagonism between the human hormones, there is reason to believe that their quantities must in some way balance if the conditions suitable for fertilisation and reproduction are to be ensured. It may well be that further research on the problems I have briefly and most incompletely outlined will lead to the discovery of substances which injected in the female body will result in a disturbance of this balance of hormones, perhaps even a disturbance that will persist for exactly as long as it is needed, and thereby for a set period prevent the occurrence of fertilisation, or, if not of fertilisation, of the embedding of the fertilised ovum in the lining membrane of the womb. If, moreover, the conditions favouring fertilisation and reproduction do indeed depend on the relative amounts of sexual hormone and pregnancy hormone in the female body, it is conceivable that in the near future many cases of sterility, proved to be due to a disturbance of this relation,

may be cured by injections of the deficient hormone at the appropriate moment in the sexual cycle. Thus, the study of the chemical substances regulating reproduction may enable man to achieve true birth-control—not merely birth prevention, but the creation of desired offspring.

§ 13

OTHER INVESTIGATIONS

In dealing with revocable sterilisation my aim has been not so much to give a summary of all the methods now under investigation, but, having grouped them in four classes, namely, surgical, mechanical, physical, and biological, to explain in non-technical language the general principles underlying each. I have made no attempt therefore to discuss the thirty odd surgical methods that have been devised for the production of temporary sterility; and I have ignored mechanical devices other than Grafenberg's ring, some because they seem no better than the mechanical devices described in the previous chapter, others because they are definitely bad

Not only α rays, but other physical agents, have been used for the production of temporary sterility. The effect of heat, to name but one familiar physical agent, is now being studied by American workers. It is well known that the application of heat to the testicle, even if it produces a rise of temperature of

only a few degrees, will arrest the production of spermatozoa; indeed, an undescended testicle—that is, a testicle retained within the abdomen, where it is subjected to the heat of the body—will not produce spermatozoa till it has been brought down into the scrotum. The American researches are concerned with the methods by which the heat may be applied, the duration of the resulting sterility, and the completeness of recovery after the treatment has been stopped.

§ 14

CHEMICAL CONTRACEPTION

Some of the investigations so far described may perhaps be regarded as having academic rather than immediately practical importance. Even if they should lead eventually to the discovery of infallible contraceptive devices, these, by reason of their nature and cost, or of the skill with which they would have to be applied, could for a long time to come exercise but a limited influence on human affairs. A cheap, fool-proof chemical contraceptive, on the other hand, even if it is not absolutely infallible but only an effective advance on the chemical contraceptives now available, would create a world revolution as critical as that which followed the discovery of language. It is with researches designed to discover, perfect and test such a contraceptive that I shall deal in this section.

Dr. John R. Baker, who, since 1928, has been working on the problems of chemical contraception, under the auspices of the Birth-Control Investigation Committee, London, once remarked that in regard to their views on this subject people fell into two main classes. In the first class were those who asked him why he bothered to do research on chemical contraception when they had used quinine and coco-butter all their lives and never had a failure; in the second were those who implored him to hurry up and discover some really effective chemical contraceptive quickly, as it was the most urgent need of civilisation! Perhaps, as he suggests, the truth lies somewhere between these two extremes. In any case, his aim has been to discover a substance the incorporation of which into chemical contraceptives would reduce the possibility of failure to a minimum.² Such a substance would have to be highly spermicidal, freely soluble, harmless, fully active when interblended with coco-butter or whatever other base might be preferred, cheap, and free from æsthetic disadvantages. Furthermore, its value

² Dr. Baker's investigations have been described in full in a series of papers published in the *Journal of Hygiene*, and they were summarised by him in a paper read at a conference on contraception in 1933. This section summarises his summary. The most complete work yet published on this aspect of birth-control is *The Chemistry and Physics of Contraception*, by Dr. C. I. B. Vogé. Dr Vogé carried out his valuable researches at Edinburgh University under grant from an American scientific organisation (The National Committee on Maternal Health, New York)—a gratifying instance of internationalism in practice

must be proved not only in the laboratory but by the experience of a large number of fertile couples over a sufficient period of time.

§ 15

Technique of the Investigation

The method first devised by Baker for testing spermicidal power was to suspend guinea-pig sperms in a suitable fluid (glucose-saline) and then to add the substances under investigation at various strengths, beginning at a high concentration and working down to a lower and lower one. The substance was allowed to act for half an hour at the temperature of the body, and if it killed all the sperms was tested again at half the concentration used before; then at half that; and so on until a concentration was reached at which the sperms were *not* all killed in half an hour. The lowest concentration which killed all sperms every time was called the "killing concentration."

After a certain amount of random testing of likely substances by this method (and discovering incidentally some with very high sperm-killing powers) Baker started to examine a series of allied chemical substances to see whether there was a discoverable connexion between chemical composition and sperm-killing power. In this work he decided to pay no attention to whether any of the

substances might be of practical use; he was concerned exclusively with general principles, but hoped that if these were elucidated it would be easier to discover new substances of practical importance. Inevitably, investigations at this stage (or very shortly after) advanced deeply into the field of chemistry, and Dr. Baker (a zoologist) began a valuable partnership in research with Dr. J. M. Gulland (an organic chemist), who not only suggested substances for trial, but prepared some that were not available, including a number that had never been prepared previously.

Before setting out the results of this series of investigations there is a further technical point to consider. The work so far described was open to the criticism that birth-control for guinea-pigs was not quite as urgent a problem as birth-control for human beings, and that Baker's results might perhaps have been different if he had used human instead of guinea-pig sperms. It was therefore decided to compare the two sorts. In one series of tests the comparison made was between human sperms in semen¹ and guinea-pig sperms in glucose-saline; in the second it was between human sperms and guinea-pig sperms suspended in human seminal fluid. The results were certainly surprising. In the

¹ The distinction between semen and spermatozoa (or sperms) should be made clear. Semen, the fluid ejaculated by the male in sexual intercourse, is a suspension of spermatozoa (the actual generative cells) in the secretions from the prostate and other genital glands.

first series there were marked differences between the two sorts in their vulnerability to certain spermicides (human sperms being less vulnerable than guinea-pig sperms to, for instance, sodium oleate); in the second series the most striking fact that emerged was the close similarity between the two sorts. "It is evident," says Dr. Baker, "that human and guinea-pig sperms are amazingly similar in their reactions to chemicals, and that there exists a substance in human semen which protects sperms from certain chemicals, especially sodium oleate. I have not yet been able to identify the protecting substance, but the discovery of its existence seems to be of considerable significance for chemical contraception. Some chemicals, such as hexyl-resorcinol, are not affected by it."

In the first group of substances chosen for investigation, the phenols, hydroquinone and oxyhydroquinone were found to be highly spermicidal, and it was decided to study compounds related to these, if necessary to prepare them, with a view to finding substances of even higher spermicidal power. One such compound, methylhydroquinone, was found to kill sperms at a dilution of 1/256 per cent.

That, however, was only a beginning. When they came to study the quinones they found substances more spermicidal than any that had ever been tested before. Quinone itself killed sperms at a dilution of 1/512 per cent; other members of this group were still more spermicidal, and toluquinone proved to

be the most spermicidal substance known. Naturally, it remains to be seen if these highly powerful spermicides are as effective in the vagina as in the test-tube; also whether there are any risks or disadvantages associated with their use. This work is still going on, but unfortunately it is proceeding slowly. One delay is due to the fact that, before being tested by human subjects, every likely substance has to pass stringent laboratory tests, including tests of harmlessness on experimental animals; another, to the fact that the supply of human volunteers is very limited.

No one would expect women who must on no account have children to test the efficacy of a new chemical contraceptive. But among the women who are using contraceptives for the purpose of spacing their pregnancies, not for the purpose of avoiding them altogether, there must be many who would be willing to give new chemical contraceptives a trial, provided that the laboratory experiments had sufficiently proved their harmlessness. The Birth-Control Investigation Committee asks for the cooperation of such women for testing the preparations that Dr Baker's investigations have now made available.¹ There is, I may add, a distinct possibility that one of these preparations, in the form of a soluble pessary, may soon be placed on the market; but to expedite this event the Investigation Committee needs more human volunteers.

¹ See footnote to page 104.

§ 16

BIRTH-CONTROL INVESTIGATION COMMITTEE

I cannot conclude this chapter without making further reference to the work of the Birth-Control Investigation Committee. This Committee of doctors and scientists was formed in 1927, not to do propaganda—indeed, its members differ widely in their views on the desirability of birth-control—but to establish facts about contraceptive methods, and the results of their application, which might serve as a basis on which a sound public and scientific opinion could be built. I have already referred to one of the investigations carried out by the Committee—the investigation upon the spermicidal power of chemical contraceptives; other investigations now in progress are concerned with the effects of various sperm-killing substances on the vagina and womb; the behaviour of the womb during sexual intercourse, especially with reference to the question whether, during the orgasm, it aspirates the contents of the vaginal vault into its cavity, and the control of fertility by the glands of internal secretion. The Committee has also completed two statistical inquiries, one at the birth-control clinics, the other by means of a questionnaire sent out to women of different social groups, which have thrown light on the extent to which various contraceptive methods are being used, their relative

ments, and their effects on the ultimate fertility of the women who use them ¹

It is impossible to over-estimate the importance of these investigations. Hitherto, birth-control in this country has suffered almost as much from intemperate advocacy as from intemperate opposition. Sentiment has governed not only the choice of arguments in favour of, or against, birth-control, but even the arguments in favour of, or against, this or that contraceptive method. I do not suggest that there is any matter concerning the lives and happiness of human beings in which sentiment has no place; but I am not prepared to accept it as a useful guide to the efficacy of a contraceptive appliance. There are two ways of finding out whether a contraceptive is good or bad: the first is to collect all the known facts about it and then to evaluate them as dispassionately as possible; the other is to find out if you like or loathe the person whose name is most prominently connected with it. The latter method is by far the more popular, but in my considered view it is not as good as the first. In this matter I find myself in agreement with the Birth-Control Investigation Committee, which has stripped birth-control of sentiment and settled down to it as a subject presenting scientific problems that must be met in a scientific manner. The

¹ The results of these inquiries are analysed in *The Practice of Birth Control*, by Dr Enid Charles. (George Allen & Unwin Ltd)

investigations conducted under its auspices may lead to the discovery of entirely new methods of contraception; already they have afforded a basis for improving some of the methods now being practised.

CHAPTER VI

OBJECTIONS TO BIRTH-CONTROL

§ 1

THE high-minded people who feel strongly about the wickedness of any expedient that may prevent syphilitics from breeding more syphilitics and healthy people from breeding more children than they can afford to maintain do not, it is interesting to note, put their objections to birth-control exactly in this form. They are opposed to birth-control because it is unnatural; because it leads to mental disorders and sexual vice; because those who practise it become sterile (that is to say, incapable of reproducing even when they want to); because it will result in the depopulation of the world; because doctors themselves are divided on the subject; and for all kinds of other reasons which vie in loftiness with those that are given by the supporters of birth-control. It would be as well, I think, to disentangle a little logic from the orgy of moral rectitude that animates both sides in this important controversy.

§ 2

It is quite true that a number of doctors, including some very important ones, are opposed to birth-control. So, I believe, are a good many

lawyers, bricklayers, shop-keepers and members of the Amalgamated Union of Boilermakers. Doctors are singled out especially from members of other professions apparently on the assumption that a doctor's view on birth-control *necessarily* has greater value than that of anybody else. I emphasise the word "necessarily" because it may be conceded that when an argument for or against birth-control is based on purely medical considerations a doctor's view does merit closer attention than that of a person without his advantages of training and experience. But anyone who cares to read the polemics against birth-control written by doctors will find that in the majority of them the argument is not based on medical considerations at all, it is based on the particular ethical, religious or political views the doctor in question may hold, medical arguments being dragged in to make a show of technical justification of views that have been arrived at on entirely different grounds

Now, clearly, a doctor's views on ethics, religion and politics may be very important indeed, they may, for instance, be the most important thing about the doctor himself; but they do not merit any more consideration in a discussion on birth-control than the moral, religious or political views of a member of any other profession (including those I have just mentioned) It is very rare indeed for a doctor to make his first approach to birth-control through his medical studies; that is largely

the fault of the medical schools in which there is no organised teaching of this vital subject. More often than not his initiation dates from some moral speculation, such as whether it is ever right to have sexual relations except for the specific purpose of reproducing children; or from a political speculation, such as whether his country really does need more soldiers. He has, in fact, often to relate birth-control to his concepts of the good, the beautiful and the true long before he has given adequate thought to any medical considerations that might help to guide his judgment. It is very gratifying indeed to record the fact that his speculations lead him far more often in favour of birth-control than against it.

But there *are* medical writers against birth-control who attempt to build up a medical case; and I think it is important that some of their more alarming statements should receive careful consideration.

§ 3

No advocate of birth-control can afford to ignore the suggestion that the use of contraceptives may result in the production of sterility. However strongly one may feel about the desirability of restricting births, one would hesitate very seriously before ever assuming the responsibility of recommending to this end methods that may result in permanent incapacity to produce children.

But is there any evidence of the sterility that is

alleged to follow the use of contraceptives? Those who make the statement do not tell us if the use of all contraceptives or of only certain of them is followed by this tragic result. Nor do they tell us where the statistics on which this allegation is based may be found. It is, I think, obvious that in a matter like this the ultimate evidence *must* be statistical. It must be shown that, taking a large number of couples, there is more sterility among those who have used contraceptives than among those who have not. Nothing could be more futile in this connexion than to quote a case in which contraceptives were used and in which there was found, later, to be sterility, or to assume that this is evidence for anything in particular. Where is the proof that the individuals in question were not sterile before they used contraceptives? How does one know that they were not people of advancing age in whom there has been a natural decline of fertility? I will go further, and assert that even if a hundred or a thousand cases were produced in which sterility followed the use of contraceptives these cases would afford not the slightest evidence that the use of contraceptives *causes* sterility. The records of the Walworth and East London Clinics¹ show that 158 women who failed to use the contraceptive on just one occasion became pregnant; and that of 97 who stopped using contraceptives because they wanted another baby, 96 were imme-

¹ See Appendices I and IV.

diately successful. I shall not offer these facts as proof that the use of contraceptives increases fertility, but if I did I should be arguing no more illogically than the opponents of birth-control

In a discussion on this subject, I suggest that the only evidence of value would be statistics showing that, in an investigation of two large, similar groups of people, one of which used contraceptives and the other not, the incidence of sterility in the first group was greater than in the second. Why are such figures not produced? The answer is that they do not exist. There is no evidence that birth-control produces sterility: no couple need be deterred from practising birth-control for fear that it will prevent their having children when they want them.

§ 4

There are, however, two very important causes of sterility which cannot be omitted from this discussion. They are sepsis (poisoning) of the female genital tract (which, when associated with pregnancy, is called puerperal sepsis) and venereal disease. As most cases of acquired sterility result from one or other of these conditions, it is worth while considering what bearing they have on the question of birth-control

It will be remembered that a common relationship between sepsis of the genital tract and excessive child-bearing was indicated in the chapter dealing with certain outstanding medical aspects of birth-

control.¹ It was then pointed out that the misplacements of the womb resulting from failure of the muscles to recover after excessive child-bearing are an important cause of difficult and prolonged labour; and it should be realised that sepsis is especially liable to occur in such cases. But the cause of sepsis that is significant above all others in its relation to birth-control has not yet been mentioned: it is the termination of undesired pregnancy by the induction of illegal abortion

Every doctor of experience knows how prevalent this practice is. In industrial areas particularly, doctors are constantly approached by mothers of many children driven to distraction by another pregnancy, or by single women who are "in trouble," with the request for a medicine to bring on their period. That is the common euphemism. It means in plain language that they are asking him for a drug to induce abortion. When the doctor fails them, as he almost invariably does, they proceed to take poisonous doses of drugs reputed by tradition to have a value to this end. They become the prey of vendors of so-called "Female Pills" and of other quacks who claim to cure "female irregularities." Sometimes the enormous doses of poisonous drugs succeed in terminating the pregnancy; usually they succeed only in ruining the health of the mother. Sometimes they kill her without in any way disturbing the pregnancy.

¹ See page 21

But when drugs have failed, there is still one final resort: the abortion-monger. This is a person who, for a sufficient payment, will undertake the risk of terminating a pregnancy by manipulation of the womb. He is usually not a skilled operator; he rarely has any knowledge of aseptic surgery, that is to say, of conducting his operation with due cleanliness; and, even on the rare occasions when he has such knowledge, the conditions of secrecy under which he must work give him no opportunity of applying it. The result is that, quite apart from risks of hæmorrhage, shock and other immediate catastrophes, it is the commonest thing in the world for the manipulations of the abortion-monger to be followed by a condition of sepsis of the genital tract.

Dr. Janet Campbell, in her report on Maternal Mortality published in 1924 by the Ministry of Health, states that cases of puerperal sepsis are more frequently due to attempts at abortion than is generally supposed. "Where the induction of artificial abortion is commonly attempted," she adds, "there will be increased risk of puerperal sepsis and consequent danger of death either from infection due to the means employed or following an incomplete abortion. Infection following abortion is seldom regarded or notified as puerperal sepsis and its incidence is therefore likely to be underestimated."

But such manipulations do not necessarily end fatally. More frequently a condition of chronic

infection of the genital tract results, which not only leaves the woman a permanent invalid but makes it impossible for her ever to bear another child. It is not enough to have a law against abortion, to pursue with threats of punishment women so terrified of bearing more children that they are prepared rather to undergo the ghastly experience of artificial abortion than to go through with another pregnancy. If those who have the power are not willing to make fully and freely available to women the knowledge whereby undesired pregnancy may be avoided, then they must be prepared to justify their preference for the vast trade in illegal abortion (with its train of death, disease and sterility) which ignorance makes inevitable.

§ 5

Venereal disease is the other great cause of acquired sterility. It was suggested in a former chapter that birth-control, by making earlier marriage possible, could do much to eliminate the temptations to casual sexual relationships that beset young people deprived of a normal sex-life. Many a woman is infected by her husband at the very beginning of marriage by disease acquired during the years of celibacy, enforced by his economic circumstances. One meets again and again cases in which a wife's attempt to practise contraception by "self-control" has caused her husband to associate with prostitutes, contract an infection and, later,

pass it on to her. There is no cure for the sterility produced by these diseases; it is permanent and it is a sterility that has, in many cases, been produced solely through ignorance of contraception. For the production of sterility by contraceptives there is no evidence whatsoever.

§ 6

The suggestion that the practice of birth-control leads to nervous disorder may be dealt with in a few words. During sexual intercourse, it is alleged, there is an anxiety that the contraceptive device may fail; and this anxiety, often repeated, tends to become chronic, leading to nervous symptoms and phobias.

What this suggestion implies is that the comparative security offered by a contraceptive device is not nearly as reassuring as no security at all: that, whereas people using contraceptives feel anxiety, those not using them feel quite serene! They can little know, those who put forward this argument, the agony of apprehension with which many harassed over-burdened mothers endure the interval that must elapse between one monthly period and the next; the haunting fear that this time the "female pills" taken unfailingly every month to "bring on a period" may not act; or the unspeakable relief that these same women enjoy when they have been to a clinic and learnt to practise birth-control.

But again it is necessary to ask for the data. Where are these birth-control-practising nervous wrecks? Among those who practise *coitus interruptus*? But advocates of birth-control know all about them and are the first to condemn their practice. Or is it among those who have adopted this, that or the other method picked up in a very secret discussion with a neighbour? One is prepared to admit unreservedly that among these also there may be cases in which anxiety about the method used may be a factor in producing nervous disorder. But that has nothing to do with contraception; that is the result of the practice of harmful methods that must inevitably be expected so long as the mass of people are kept in ignorance of methods that are healthy and efficient.

§ 7

What do those who call contraception "unnatural" mean by the word? Do they mean that they have feelings about contraception that are too deep for words? I am prepared to admit that they have. Do they mean that contraception is not practised in the vegetable kingdom (or, for the matter of that, in the animal kingdom, except by man)? If so, I must agree with them. Or do they mean that contraception is in *conflict* with nature in general or, perhaps, human nature in particular? That seems sufficiently damaging to contraception to merit detailed consideration: and if it turns out,

after all, that they mean something else, I can only plead that it is a little difficult to rebut an accusation which nobody can understand, not even the person who makes it.

The "natural" means for controlling populations are well known to us. They are famine, disease and destruction by violence. Nature has all kinds of neat little expedients for keeping down the numbers of species that breed too exuberantly. Fertilised seeds fall on rocks and barren places, tender plants are choked out of existence by weeds and brambles; germs and parasites wipe out animal populations very efficiently, myriads of young creatures are gobbled up by hungry members of their own and other species.

Bacteria and parasites still infect and destroy the human subject, the threat of war is not lifted; periodic famines still wipe out populations; but these "natural" expedients no longer appear effectively to avert the risk of over-population and, what is more, a lot of people do not like them, and even find themselves in conflict with Nature's method of securing the (admittedly) beneficent end of limiting population. They are not deterred by the fact that the alternative is the substitution of an expedient that is not in Nature.

Scientists engaged in tracking down and destroying the micro-organisms of disease may in a very definite sense be regarded as persons engaged in "unnatural" practices; but few people would regard

their activities as highly blameworthy. Nor is it generally held a mortal sin to put on a waterproof to avert one of the natural consequences of rain. The confusion arises from the curious assumption that "natural" is synonymous with good, and "unnatural" with evil. The world of Nature is neither good nor evil: it is material upon which man must work to produce expedients and ends the goodness or badness of which may then be judged in terms of his own moral nature. These expedients are unnatural only in the sense that they do not already exist in Nature; and one may freely admit that if everything man needed for his use, happiness and development were performed in Nature, there would be some real point in stigmatising as unnatural and immoral any modification of Nature he dared to make.

But many devices not in Nature have contributed to human happiness and well-being, and, as such, have managed to secure general approval. They have been called inventions, and range from houses, clothes, electric light, cooked foods and mass production motor-cars, to such useful devices as suspenders to overcome the natural force of gravity. But general approval has not been achieved easily. Each conquest of Nature has been greeted with uneasy suspicion—with the pious assertion that these new-fangled ideas are unnatural and no good can possibly come of them. Such was the case when chloroform was introduced as an anæsthetic against

the pains of child-bearing; pain, it was held, is a natural accompaniment of child-bearing with which it is impious to interfere. Similarly, aeroplanes were unnatural, because "if we were intended to fly we should have been provided with wings." Those who agitated for the abolition of slavery were attacked on the grounds that they were wickedly attempting to interfere with a law of Nature.

In each case, the error was the same. The new invention was in apparent or real conflict with physical Nature or established custom. It has never occurred to Nature's diehards that to be consistent they would have to repudiate *all* inventions and live in natural caves, wear their natural skins in all weathers, eat only natural, that is to say raw meats and fruits, and have no truck with such unnatural devices as hygiene and sanitation. One cannot help feeling that the verdict "death from natural causes" would come too soon to enable them to recant their dangerous errors.

Contraception is condemned as unnatural: but there is nothing in it that violates *human* nature. It is true that it is a device not found outside the human race; but the road to culture and civilisation is paved with such devices. If it is suggested that the separation of the procreative from the personal ends of sexual intercourse is unnatural, one may point out that, on the contrary, among many savages, living in a state of nature, the separation is complete. Sexual intercourse is indulged in for personal ends

only: when babies are born it is assumed to be due to something the mother has eaten. If the subject of disapproval is really the waste of spermatozoa and ova, that is not so much a criticism of contraception as of the whole plan of Nature. Millions of seeds are scattered, of which only a few are destined to take root and develop. Whenever semen is emitted it contains "a million million spermatozoa," of which, however, only one can fertilise an ovum. Do the theological writers who say that this one chance in a million million must be taken condemn as unnatural sexual intercourse during pregnancy or after the change of life? These, it would appear, are questions they prefer to ignore.

Perhaps the best thing that can be said for the word "unnatural" is that it is the debater's friend. The only precaution required is to get it in first; in any discussion the first "unnatural" scores the heaviest points.

§ 8

We need not deeply concern ourselves with the antagonism to birth-control that comes from those who feel that we must produce large populations with which to fight our future wars. People appear to be singularly reluctant to produce children which will exist to adorn casualty lists, and one must admit frankly that there is absolutely nothing to be done about it.

The wars of the future will, in point of fact, be fought not by big armies, but by a few highly skilled experts against civilian populations. Therefore, a relatively small, efficient community would be more powerful in war than a nation with a large, superfluous population. But, apart from this, a country controlling its numbers is less likely to increase the pressure on world markets—the main cause of war—than one with an excess of population for which an economic outlet has to be found.

Nor can one say much about the vice which it is alleged will follow the practice of birth-control. It is not generally conceded that the classes that practise birth-control are noticeably more vicious than those that do not; nor is it necessary to assume that a husband who respects his wife's right to decide when children should come from her body is less likely to respect her freedom and personality than one who does not.

The fear that, if the deterrent of unwanted pregnancies is removed, the husband may make his wife a victim of his unbridled lust; that, as some opponents of birth-control have expressed it, she may become more helpless than a prostitute before his sexual desires, appears to be based on a curious and inaccurate conception of the nature of the sexual relationship. The implication is that sexual intercourse is an indecency forced by the man upon his reluctant wife—that the wife is a passive agent, through whom her husband gratifies his

passions, not a participant in a mutually desired experience

This is utterly fantastic. Among most people sexual intercourse can only occur as a fulfilment of a common need; most men are repelled by sexual relations unless they believe that they are desired by the woman as much as by themselves. Even men who visit prostitutes need the illusion that the woman, whose body they have taken out on hire, enjoys the sexual relation with them, and the simulated ecstasies of experienced prostitutes are an indication that this fact about average male psychology is well realised by them.

There are, of course, men with unusual sexual tastes. They are few, but there is no point in pretending that they do not exist. I would suggest, however, that the sort of man who would have sexual relations with his wife against her inclination is not likely to be gifted with forethought; he is not the kind who will refrain because some months later a child may come as a penalty for his lusts, nor is he likely to require the extra stimulus of having such a fear removed from him.

It may, of course, be argued that the man and woman together may become less restrained in the expression of their sexual desire when they are no longer haunted by the fear of undesired pregnancies. This may or may not be the case, but it seems to me that such behaviour on their part would not represent any falling away from virtue. There is no

virtue in refraining from sexual intercourse through fear of undesired consequences. But it seems to me to be a fine thing to remove such fears, so that abstinence, when it does occur, can truly base itself upon an intelligent harnessing of the sexual instincts and a mutual respect for each other's desires on the part of the man and the woman.

§ 9

The only other argument against birth-control that will be considered in this book is based on the fear that, if the use of contraceptives becomes general, the world will be depopulated.

It is assumed that when people find they need not have children by accident they will not decide to have them by design. Population is regarded as a mere by-product of sexual passion. One can only assure those who hold this curious opinion that with many people the desire for children is as primary and as overwhelming as the desire for personal sexual gratification; that perhaps the most tragic experience of a doctor's professional life is the task of informing a woman that, although there is nothing against her enjoying what is called a normal sex-life, it is impossible for her ever to bear children. No one who has observed the eagerness with which sterile women press for the most desperate operation, for any expedient that may offer a chance of pregnancy, can ever doubt the terrific urgency of the need for children.

But all this, to ordinary men and women, must be too obvious to need mention. They know perfectly well how intensely they desire to have children; that they would use contraception not to avoid the responsibilities of parenthood, but all the more conscientiously to fulfil them, not to go through life childless, but only to bring into the world children that can be adequately supported and cared for. It seems to me that a world populated by people every one of whom was brought deliberately into being would be a magnificent place to live in.

CHAPTER VII

THE PROPAGANDA OF BIRTH-CONTROL

§ I

THERE IS no law in this country against the propaganda of birth-control or against the general dissemination of knowledge on the methods of contraception. When the police decide to seize a book and to prosecute its author and publishers they do so, not on the ground that the information it contains should be withheld from the public, but because the mode of presentation does not appeal to their well-known sense of decency. One may safely advocate contraceptive methods which have been condemned by every authority on medicine and psychology as dangerous to the mental and physical health of the persons who practise them; one may be as inaccurate and as unscientific as one pleases; one may with impunity infiltrate the whole subject with that genteel, sentimental prurience which is so gratifying to the reader who enjoys his sexual thrill so long as it is provoked with due solemnity and respectability, but one may not, in the interest of cold precision, use plain, unambiguous, unemotional words, or introduce a diagram that illustrates exactly what one is trying to express in the text, without running the risk of prosecution under the Obscene Publications Acts.

Birth-control may be legal but it is still forced to be furtive. The chances are that you will find it easier to buy this book in a shop devoted to the sale of pornographic literature and pictography, and in which contraceptive appliances are sold at luxury prices, than from an ordinary bookseller dealing with it as one of his ordinary selling lines.¹ Advertisements of contraceptives are not taken by most of the daily and weekly papers: the exceptions are the less reputable newspapers that thrive on their full reports of "sex-stuff," and a small section of the Press that devotes itself to socialist propaganda and finds the acceptance of such advertisements consistent with its political ideals.

Contraceptive appliances are sold at large profits over the counters of most reputable chemists: but you must ask for them very quietly, preferably when there is no one else in the shop; and they are handed over with great secrecy, in case anybody should see what you are buying and your good name be tarnished for ever. Chiefly, however, they are sold in special shops at the fantastic prices you are supposed to be willing to pay if you insist on buying obscenities. Unless you are particularly lucky the

¹ I am glad to state that this prediction, made when I was writing the first edition, has not been fulfilled. *Parenthood* is, in effect, "banned by the rubber-shops," and stocked by highly respectable booksellers. In December 1930, however, the Chichester police seized some copies of the second edition, with the intent to prosecute me and the publisher for indecency. Then, as far as I can discover, they went to bed and thought better of it.

shop-assistant will treat you with the confidential air of one who is all too ready to welcome you into an Obscene Brotherhood. Perhaps at the same time he will invite you to buy the portraits of Twenty Parisian Beauties or a novel by Guy de Maupassant or Paul de Kock—two stars that shine with an equal lustre in his sky.

It is true, nevertheless, that people who have the means to buy books and the leisure to read them have at their disposal a growing body of literature dealing with the theoretical and practical aspects of contraception. Though much of the information they gain this way may be unreliable, and much of it difficult to apply, there is nothing to prevent their consulting doctors well versed in contraception and learning at first-hand a method fulfilling their own special needs.

Birth-control information has, indeed, become so easily accessible to the richer and more leisured classes that many people find it difficult to imagine the awful mystery that still enshrouds the subject in the minds of the majority of people. Whatever the explanation may be, lack of money to buy, lack of opportunity to read, lack of education to understand, large numbers of the working classes are still untouched by the great outpouring of birth-control propaganda addressed mainly to the middle and upper classes. They cannot get information from their reading; and they cannot afford consultations with doctors or the cost of contraceptive appliances.

That does not mean that they do not discuss birth-control or, in many cases, somehow or other, practise it. But the subject, as is to be expected while society treats it as a branch of pornography, is usually discussed furtively and information is passed on secretly from neighbour to neighbour. In these circumstances it is not to be anticipated that the methods used will often pass the tests of aesthetic adequateness, hygiene or reliability. Withholding information does not wholly prevent either the discussion or the practice of birth-control. It simply ensures that the discussion shall be indecent and the methods bad.

§ 2

An attempt to remedy this state of affairs is being made by a number of organisations devoted entirely to the propaganda of birth-control as a social and individual ideal; and by a few privately financed free clinics dotted here and there throughout the country, where working women may obtain accurate information and purchase contraceptive appliances at the very lowest market rates.

Among these organisations one may select for special mention the New Generation League (successor to the Malthusian League), which is responsible for most of the pioneer propaganda work in this country, especially from the standpoint of the middle classes; the Society for Constructive Birth-Control, founded by Dr. M. C.

Stopes; the Society for the Provision of Birth-Control Clinics; the Birth-Control International Information Centre, under the presidency of Margaret Sanger, and the National Birth-Control Association. These organisations are not in competition with each other; on the contrary, their activities dovetail into each other very neatly. Thus, the National Birth-Control Association is concerned primarily with propaganda in the United Kingdom, whereas the chief task of the Birth-Control International Information Centre is to direct knowledge of contraception to all parts of the world, particularly to territories which have no birth-control organisations of their own. The Society for the Provision of Birth-Control Clinics establishes as many birth-control centres as it has money for, but would be the first to rejoice if the National Birth-Control Association succeeded in persuading local authorities to provide the clinics instead. Further information about these organisations is given in Appendixes II and III.

§ 3

The following statement of the present official attitude towards birth-control will help to explain the propaganda of birth-control in the United Kingdom. The welfare centres established throughout the country by local bodies, and largely financed by the Ministry of Health, are being increasingly

used by working-class women for the solution of all health problems that concern them and their children. Their function is not to deal with fully-formed disease, it is to make available the kind of knowledge required to keep mothers and their children in good health. They advise women on the care of their bodies before their babies are born; they advise them on the care and feeding of the newborn child; they help them through the hazards that beset a woman for some little time after the child is born; and even, should a woman's condition demand it, assume the responsibility of advising her not to risk another pregnancy or perhaps to defer it for a prescribed period. What, with very few exceptions, they do not do is tell the woman how this last important piece of advice may be carried out!

A working woman would therefore naturally turn to her welfare centre for guidance on birth-control. But the Government in its wisdom has decided that unless further pregnancy would be detrimental to her health she may not get it. She may be syphilitic or a mental defective, she may have no means to rear a family, she may have a dozen children already and no decent human accommodation for them, but the Ministry of Health, acting in the public interest, has decided that the welfare centres must do nothing whatever to help her. Here and there, welfare doctors have interpreted the Ministry of Health's instructions in a liberal sense and assumed

economic incapacity to be (as it indubitably is) a condition detrimental to health; but the great majority, whatever their convictions, dare not give the information for fear of losing the public grant which enables them to carry on their work¹

The National Birth-Control Association is trying to obtain wider powers for public health authorities. It does not ask that anyone should be compelled to give birth-control advice, but simply that no public health authority, no welfare centre doctor, should be prevented from doing so by the Ministry of Health.

§ 4

This claim has been put to successive Governments, but has invariably been turned down on the ground that the welfare centres are supported by public funds derived in part from the taxation of persons with a conscientious objection to birth-control. The Government, in short, refuses to grant wider powers to local authorities out of consideration for what the Roman Catholics—for these, of course, are the persons with a “conscientious objection to birth-control”—declare to be their rights as tax-paying citizens.

A very important principle is at issue. The right of minorities must be respected, but it is important to define what those rights are and whether they

¹ See Ministry of Health Memorandum 153 M C W (July 1930) and Circular 1208 (July 1931)

include the power to dictate to an overwhelming majority. All of us object to certain ways in which public money is expended; earnest Christian Scientists, no doubt, object to money being spent on hospitals and welfare centres at all. But no one has yet suggested that, in order not to outrage their principles, all expenditure upon public health services, to which they, in common with the rest of the community have to contribute, must be stopped. As long as there is no attempt to force birth-control information on any man or woman who objects to it, no minority has the shadow of a right to say, "Not only do we not require this information ourselves but we intend to prevent anybody else who does want it from getting it." In supporting the Roman Catholics the Ministry of Health is animated by the important political principle that the rights of a minority must and shall be respected—as long as nobody else's are.

Let there be no error about what exactly is at stake. It is not a question of birth-control *versus* no birth-control. Neither the Ministry of Health, nor the Government from which it receives its instructions, is asked, or expected, to make any declaration about the rights or wrongs of contraception. It is not asked to thrust birth-control information on anyone who does not want it. It is merely asked not to interfere with local authorities who may wish to make birth-control information available, whether at welfare centres or at specially provided clinics,

to all and not merely an arbitrary selection of women who need it; or with doctors in the public health services, who, in this as in all other matters, would rather follow their own consciences than the orders of a Government department. The demand of the birth-control organisations is simply that poor women, who of necessity must go for medical advice to centres in receipt of Government grants, should not suffer handicaps from which better-off women are free. Such an agitation no more implies agreement with the principles of birth-control than the agitation for Catholic Emancipation implied agreement with the principles of Roman Catholicism.

It is necessary, however, to go farther and point out that there are other issues, involving equally acute differences of opinion, upon which Governments have to take decisive action. Complete unanimity is, no doubt, desirable, but it appears to be most easily achieved in countries happy in the possession of a dictator who can tell the people what they had better unanimously decide. No democracy that decided to act only when it was unanimous would ever do anything.

One consideration that encourages certain politicians to wash their hands of the whole controversy requires special mention. It is this. They see no reason why they should sacrifice the whole of their political programme for what they regard as a minor issue. Their fear is not of birth-control, about which many of them hold enlightened views,

but of the Catholic voter. "Why," they ask, "should we alienate a large section of the electorate on account of an issue that seems trifling in relation to the principles for which we stand?"

I do not think they are altogether justified in their fears. It is quite likely that any political party making a stand on this question will temporarily lose some votes, but it will gain far more from the support of enlightened men and women who see in the denial to working women of information freely available to the upper and middle classes, not a minor issue, but an injustice that is not to be tolerated.

§ 5

It is impossible to say how long the matter will be allowed to remain in this unsatisfactory state. The country will not be content for ever to accept its orders from a theological body. At the present time enlightened men and women of all political parties are working hard to secure for public health authorities the power to disseminate birth-control knowledge through the welfare centres, through municipal birth-control clinics, through gynaecological centres, through any and every proper channel, to adults who cannot obtain this knowledge from a private practitioner. It may be that in this endeavour they will, for a time, be defeated by the bigots. If so, contraception will remain a subject for sly and

indecent discussion; quacks and abortionists will continue to flourish on people's ignorance; women of the working classes will go on breeding children beyond their physical and economic strength; and the shops selling great literature as pornography and contraceptives as aids to obscenity will go on turning over a nice little dividend.

We must face the sad fact that there are people who enjoy that sort of victory.

APPENDIX I

BIRTH-CONTROL CLINICS

§ I

THIS appendix on birth-control clinics is for the benefit of women who wish to have personal instruction in birth-control methods, but do not know where to go in order to get it, or, who know the address of a birth-control clinic in their neighbourhood, but before deciding to visit it would like to know what exactly happens at a clinic and what class of women they are likely to meet there. In several places in this book I have stated that every woman who wishes to learn how to practise birth-control should take the first chance she gets of going for personal instruction to a private doctor, or to a birth-control clinic. I feel so strongly that women who must depend on books for their information are at a serious disadvantage that I have no hesitation at all in stating once again that the best source of birth-control information is a qualified medical practitioner who has made a special study of the subject.

For many years past, women of the middle and upper classes have been able to get the necessary instruction from doctors in private practice, but in our country it was not till 1921, when Dr M C Stopes and her husband opened the Mothers' Clinic at Holloway (the first organised birth-

control clinic in the British Empire), that any serious effort was made to give poor women the same advantages. In this matter we were many years behind Holland, for in that country Dr. Aletta Jacobs had started a birth-control clinic for poor people as far back as 1882.¹ It is of some historical interest that just as Aletta Jacobs, the first woman to qualify in medicine in Holland, was also a pioneer in the birth-control movement, so, in our country, was Dr. Alice Drysdale Vickery, who was among the first five women to obtain a medical qualification in the British Isles. Dr. Vickery, indeed, actually founded a private birth-control centre in London quite early in the present century.² But 1921 is generally regarded as the year in which the movement in England for providing birth-control clinics for poor people got its first big impetus. In November 1921, some six months after the opening of the Mothers' Clinic at Holloway, Dr. and Mrs. Drysdale, President and Secretary of the Malthusian League, started the Walworth Centre, which, through the activities of the Society for the Provision of Birth-Control Clinics, founded in 1922,

¹ Dr Jacobs contributed a brilliant essay to the symposium, *More Medical Views on Birth Control* (see footnote, p 49) I seriously ask any reader who believes that birth-control is likely to lead to depopulation, or to immorality, or to any of the things that nice people like us disapprove of, to study Dr Jacobs' essay very carefully, not for its noble sentiments but for its hard facts.

² See *The Birth Control Movement in England* John Bale, Sons & Danielsson Price 6d

has been the parent of no fewer than twenty-six clinics throughout the country

§ 2

What was the aim of the Society for the Provision of Birth-Control Clinics? I cannot express this better than by quoting from the first of the series of annual reports that have been issued from the Walworth Centre.

The one purpose of the Centre is to obviate human misery by preventing the conception of unwanted children. In poor families each additional child means a lowering of the standard of living for the whole family. Many married couples among the poor have only one room to live in, and under such conditions even one child is a doubtful blessing. In practice it often happens that father and mother and five or six children are packed into one room—sometimes with only one bed. The only effective way of dealing with this human problem is to teach all married women—and especially the poorest—how they can limit their families without denying to themselves and to their husbands that physical union which is the basis of married life. The middle and upper classes throughout England have already for the most part acquired the necessary knowledge, and in these classes the big families of the Victorian era are no longer to be found. If the poorer classes could be given the same knowledge, and taught to practise the same prudence, within a very few years the greater part of the squalid poverty which now curses a large proportion of our population would disappear. In addition, there would be a marked improvement in the physical and mental health of the nation, for the most prolific parents are often the

most diseased. At the same time, thousands of poor women would be saved from the constantly overhanging terror of an unwanted pregnancy.

From the very beginning the Society decided that every woman attending the clinics conducted under its auspices should be examined and fitted with the necessary appliances by a fully qualified woman doctor, and that only the doctor should be responsible for the treatment of patients. This was a very important decision; by carrying it into effect the Society clearly differentiated the clinics conducted under its auspices from those in which the patients are seen and fitted not by a doctor, but by a nurse. I do not suggest that it is not better for a woman to be taught birth-control by a nurse than to learn it herself; and I have no intention of undervaluing the pioneer work that has been done by those responsible for the Mothers' Clinic, Holloway, and for its successor at 108, Whitfield Street, W.1, where patients are seen and fitted by a nurse, and a doctor attends to examine patients believed by the nurse to present some abnormality. But however good her training—and nowadays it is very good indeed—a nurse cannot be expected to judge as well as a doctor whether an abnormality is present, or how serious it is. The wisdom of the Society's method is reflected in the fact that its clinics are receiving more and more support from the medical profession—from doctors in private practice, tuberculosis officers, and the authorities at welfare centres,

general hospitals and mental asylums—who are sending them, in increasing numbers, patients needing birth-control information on medical grounds. Moreover, the skilled medical examination at these clinics has resulted in the discovery of many cases of latent internal trouble which might otherwise not have been detected till irreparable damage had been done. When a woman attending the clinic is found to be suffering from some abnormal condition the doctor in charge gives her a letter to her doctor or to a hospital where she can get the necessary treatment.

The matter is important in yet another respect. Some women attending the clinics are already pregnant, though their pregnancy is at such an early stage that it can be diagnosed only by skilled examination, if the diagnosis is missed, and the woman is fitted with birth-control appliances, she will naturally assume, when her pregnancy becomes obvious, that it occurred after she had taken the advice of the clinic, and that birth-control is a cruel swindle.

§ 3

The general routine at the clinics is now pretty well standardised¹ It is designed to offer every woman who attends efficient service in the minimum of time, that, after all, is what the woman goes for.

¹ See *The Management of a Birth Control Centre*, by Evelyn Fuller. Copies may be obtained from the Walworth Clinic, 153A, Last Street, London, S. E. Price 1s 6d. Also see, *How I Run my Birth Control Clinic*, by Norman Haire.

But it offers her in addition an atmosphere of friendliness and a guarantee of privacy and secrecy. As few questions are asked as possible—no more than are absolutely essential for a proper conduct of the work. Name, age, number of children, and husband's occupation—these particulars are recorded on the patient's card by the lady superintendent, the patient then passing to the consulting-room, leading off from which are a number of screened-off cubicles in which the actual fitting and teaching are carried out. The doctor, having asked a few simple questions, makes a careful examination and fits the appliances; the nurse then shows the patient exactly how to use them, and only considers her work finished when the patient herself has shown that she is able to insert and remove the appliance correctly. Each patient, before she leaves, is given a card containing, among other instructions, the following:

1. Please return in a week's time with the pessary in position, so that the doctor can tell you if you are placing it in correctly
2. The pessary, when new, is round, but tends to get out of shape. Gently press it into a round shape before use. Take care not to be constipated, if you are the pessary is liable to fail
3. Never leave the pessary in for more than twelve hours.
4. After use, wash the pessary and powder it with French chalk.
5. Do not use the pessary if the rim has snapped
6. You are asked to visit the centre every six months.

The second visit, after a week's interval, is very important, for however careful the superintendent, doctor and nurse may be to set the patient at ease, she is likely, because of the very novelty of the experience, to feel a little excited and forget, or even fail to take in, the instructions she has been given. At the second visit the patient no longer feels agitated and her difficulties, if she has had any, can be cleared up easily. In this connexion the Committee of the North Kensington Centre makes a further point:

The second visit [it states] is regarded as important for the reputation of the centre, for where failures occur they are often found to be amongst women who have not returned for their second visit. The Clinic cannot feel itself in any way responsible when the doctor has not had the opportunity of ascertaining that the patient understands how to use the appliance.

At some of the Centres the views expressed in this quotation are held so strongly that the women are asked to refrain from sexual intercourse till they have paid their return visit and proved to the doctor that they are able to use the appliances correctly.

§ 4

The following extract from the first report (1924-25) of the North Kensington Centre gives a vivid impression of the kind of women who use the clinics:

All sorts of women have been. some young mothers with just two or three children—the only too usual middle-class number—wanting to know before it was too late how to space out their families and their future babies, some older and iller and tired women with big families of nine or ten, seldom all alive, wanting to end it and have no more of this miserable succession of birth, and feeble, wretched life, and most likely death . . . Among our cases, the average wage for a whole family works out at £2 10s a week, the housing is practically always deplorable

The experience at most of the clinics is that, while they have been patronised by the young and intelligent women with one or two babies, they have, on the whole, failed to reach the older women with large families, and the less intelligent women.

The poorest type of women [states the Kensington Report for 1927-28] is still slow in attending this clinic, just as she is in taking her children to the welfare centre. She is still liable to rely on muddling through in the belief that she may not become pregnant, or on attempts at abortion when pregnancy is an established fact. The records show that of those who come to the clinic, a number have a small or medium family; of these, some admittedly want more children after they have had a rest; with others the reason for wishing to limit the family is the desire that the children they already have may be given a better chance than they had themselves, while in many cases it is obvious for medical reasons that another child would be undesirable.

A similar account is given by the medical officers of the Walworth and East London Clinics (Annual Report, 1932-33):

Our patients include the slum-dwellers, already overburdened with poverty and ill-health, many already the mothers of large families; the younger mothers of one or two children who are still maintaining a higher standard of life, and who feel that for economic reasons (housing, unemployment) any further increase in the family would be disastrous to those already born, young mothers with babies in arms, often themselves mere girls, who wish to space their children; unhappy wives whose husbands are unfaithful, drunken, or violent, wives who have mentally deficient or crippled children, or whose husbands are tubercular or suffering from some hereditary disease. For example, we had one patient who had already four children who were all conceived during the periodic leave of the husband from an institution for mental defectives, he was shortly due home again for a further visit, and she wished to protect herself against yet another pregnancy

In the same report the medical officers draw attention to the prevalence of attempts at abortion (sometimes successful) and of self-prescribed birth-control (always unsuccessful) among the women who come eventually for help to the clinics. Birth-control clinics may conceivably be open to some of the objections brought against them by their opponents, but if they did the very worst that is said of them by those who would do anything rather than visit a clinic and put their unsavoury phantasies to the test of fact, if they really catered (as these high-minded people are never tired of assuring us) for "immoral" women shirking their marital responsibilities, for women of the streets, for single women after a "good time,"

would not the state of affairs described in the following quotation completely justify their existence?

The general standard of health is not good. Many of the women are suffering from the appalling conditions in which they live, they are badly nourished, worned, and depressed. Injuries due to excessive childbearing are common, and our medical histories reveal that attempts at abortion, sometimes successful, are extremely common, and in many cases cause serious injury to health. *We should like to draw attention to the probable influence of the widespread practice of attempting abortion on maternal mortality and morbidity.* The beneficial effects of a successful method of birth-control, as an alternative to regular attempted abortion, are obvious. We are not in touch with all our patients, but there is a large number who return regularly every six months or every year, and in these cases, when the women have found the method satisfactory, and have confidence in it, they volunteer the information how beneficial it is to them to feel that they have no longer the incessant worry each month, and that in consequence of the benefit to their health they are able to take an increased interest in their home and their children.

Our records of the previous efforts to control conception before coming to the clinic show that by far the commonest, and the most unreliable, is *coitus interruptus*. Large families are born, in spite of the fact that the parents are practising interrupted intercourse. Lactation, contrary to popular view, is quite unreliable to prevent pregnancy, and some of our most pathetic cases are the mothers with young babies on the breast, who are found to be again pregnant on their first visit to the clinic. A wide variety of methods is tried, and failures are recorded in all

Finally, it may be noted that some women go to the clinics in error; they go, knowing that they are pregnant, but in the belief that the clinic will help them to procure an abortion—the only method they know for dealing with undesired pregnancy. In such a case the doctor does the only wise thing: she advises the woman to put herself under the care of a private doctor or of an ante-natal clinic, and then, when she has had her baby, to return for proper birth-control instruction.

§ 5

The above account of the birth-control clinics was addressed to the general reader, above all to women who might, if they knew what sort of places birth-control clinics are, decide to consult them. I must now add a few words for the information of benevolently disposed readers who are in the happy position of being able to indulge their benevolent impulses. The birth-control clinics need money. Up to the present the Society for the Provision of Birth-Control Clinics has succeeded in establishing nearly thirty clinics in London, the provinces, and Scotland; this is a considerable achievement, but it must be recognised that the number of women these clinics have been able to help represents an insignificant proportion of those who need help. Given the money, the Society could open a clinic in every large town in Great Britain. I do not believe, as some do, that it would in this

way solve the problems of poverty, but it would bring health and happiness into thousands of homes, and that achievement seems to me worth all the money that can be spent on it

Some little while ago the Society, in appealing for funds, sent out a leaflet from which I quote the following extracts :

A FUNDAMENTAL QUESTION

Of charitable appeals there is no end—but this is no ordinary appeal We claim your help in our task of making charity unnecessary. Every year, over and above the millions spent by the State, generous members of the public contribute many hundreds of thousands of pounds for the alleviation of human suffering Much of that suffering could and should be prevented. Much that would occur in the future is being prevented—and it is on behalf of the organisation which is preventing it that the present appeal is made

Somewhere in South London, for example, is a woman still young in years—thirty-one to be exact—the mother of seven children, though eleven times in all she has been brought to the verge of motherhood Of the seven children actually born, one died from debility The husband earns only 45s. per week, and is paralytic, the mother suffers from St Vitus's Dance; all the children are subject to fits and rickety.

Not far away is the wife of a disabled soldier, neurasthenic and unable to work The family income is the man's pension of 19s per week, eked out with parish relief, yet they have eight children to support, and might have had another but for a miscarriage

These Women's Welfare Centres exist to give poor mothers such as these access to knowledge under skilled

medical control, which shall enable them to limit their families to their means and to avoid bringing into the world sickly, disease-infected children

Does not such work merit support?

This is a reasonable appeal and I hope it brought in a lot of money, but in this matter of birth-control some people do not quite see eye to eye with the Society, and two of them wrote letters which I think deserve the widest publicity. The first of these letters was written by a gentleman who believes that God is love; the second, by a gentleman who does not state his religious convictions, but is engaged in the perambulator-making profession.

Letter 1

You know very well that the poor do not want Birth Prevention. They love their children and their families. It is the dirty-minded rich that want to teach immorality to the poor of England. You are not Christians, for the Bible is against you—you know very well that the one man who practised birth prevention in the Bible was struck dead by God. The Catholic Church will oppose evil-doers like you to the end of time, and if you were in a Catholic country like Italy you would all be in gaol—you ought to be on the scaffold.

There is one consolation, however—one day you will burn in hell for all eternity.

Letter 2

That "fundamental question" of yours was rather mixed. What effect do you think it could have upon a firm manufacturing perambulators? Fewer babies—fewer

prams—less employment! I am not at all sure but that the dissemination of such contrivances or methods as you would teach will not make lust and promiscuous intercourse easier, and safer for young people who have not the advantage of religious or respectable associations. To me it seems rather contemptible that my fellow-men should, with your assistance, be made free to indulge their animal passions without expecting to incur the cost of the respectable upbringing of children. Self-restraint, surely, is nobler than the use of such contrivances?

Self-restraint is nobler than the use of such contrivances! But will it have quite the same effect on the perambulator industry? I gather that the author of this second letter proposes to solve the problem of unemployment by the ingenious plan of turning the men of England to the job of making perambulators for each other's babies.

Space will not allow me to consider these two important letters as fully as they deserve, or to go into the question of how far they support the view that ethics and economics are not quite as independent of each other as some well-to-do people think; but I would strongly urge anyone who, like myself, is not altogether converted by the arguments they bring forward, and still believes in the need for birth-control clinics, to send a donation to the Hon. Mrs Graham Murray, O B E, Honorary Treasurer of the Society for the Provision of Birth-Control Clinics, at 153A East Street, Walworth Road, London, S.E.17.

APPENDIX II

THE NATIONAL BIRTH-CONTROL ASSOCIATION

THE following statement of policy is taken from the Annual Report for the period 1932-33.

OBJECT

To advocate and to promote the provision of facilities for scientific contraception so that married people may space or limit their families, and thus mitigate the evils of ill-health and poverty.

FUNCTIONS

1 To encourage the recognition by public health authorities, and by hospitals or other voluntary health organisations, of the need for making available medical advice on methods of birth-control.

2 To co-operate in the provision of centres at which medical advice on methods of birth-control can be given where Local Authorities or other Health Organisations do not take adequate action

3 To promote such legislative, social and administrative reforms as are relevant to the object of the Council

4 To keep in touch with scientific research on contraception and to assist in the making known of suitable new methods

5 To urge and assist in the provision of better opportunities for medical students and practitioners to study contraceptive methods

6. To maintain an information bureau and library on

the birth-control movement and allied problems in the United Kingdom and abroad

7 To issue literature and to conduct any necessary press campaign

8 To inquire into the manufacture and sale of contraceptives and to take any action that may be advisable to promote the supply of satisfactory goods to suitable persons and organisations

9 To keep in touch with the birth-control movement abroad, and, if thought fit, to be represented at any international conference

APPEAL FOR SUPPORT

The Association may justly be proud of its achievements during the first three years of its existence, but it has only so far touched the fringe of its task. It appeals for funds, for more organisers, for general propaganda and for research. It appeals for supporters all over the country, who will urge their local Health Authorities to take action and who will help in every possible way to establish birth-control as a normal part of the public health services in every locality.

Donations should be sent to the Honorary Treasurer, The National Birth-Control Association, 26 Eccleston Street, London, S.W. 1.

APPENDIX III

THE BIRTH-CONTROL INTERNATIONAL INFORMATION CENTRE

IN 1933 this organisation published the following memorandum setting out its past and present activities and projects for the future:

Within the individual families that have regulated their own numbers the effects of birth-control have been almost entirely beneficial. Not only has this practice enhanced maternal well-being and marital happiness, and afforded relief from the economic as well as the physiological and psychological burdens of excessive child-bearing, but also, by making procreation contingent on foresight and deliberate choice, and enabling parents to have a civilised regard for the rights of children, it has produced in the families that have come within its influence an immense heightening of self-respect, a sense of fulfilled social and moral responsibility, such as never could be enjoyed by those who breed blindly and instinctively and without regard to their economic or other capacity to rear a family.

Birth-control, by these achievements alone, takes its place among the greatest boons that have ever been conferred on mankind.

BIRTH-CONTROL OR WAR

But the ultimate biological effect of birth-control practice, that is to say its effect on the stocks that compose future generations, must depend upon the way in which it is distributed throughout society—both

among the widely disparate economic classes and among the different races and regions of the world.

At the present time birth-rates vary in an almost strict inverse ratio with economic capacity. Birth-control is practised most extensively among those classes—the professional and skilled working classes—that still have the means for providing their families with the necessaries of civilised life, and it is practised least in what are economically, and some would say genetically, the lowest social grades

Furthermore, on the evidence from birth-rates alone, it is evident that the regional distribution of birth-control is as disadvantageous as its distribution among the different levels of society. In certain territories, indeed, including some that are ill-adapted to supporting large populations, birth-rates remain so high that large-scale emigration (preceded if necessary by international war) seems to offer the only practical expedient for relieving the pressure of population within their borders

With the advance of science, moreover, and the consequent failure of two of the most effective of the traditional checks upon population volume—namely, famine and pestilence—it appears likely that in future recourse to arms will be regarded as “inevitable” even more frequently than in the past.

DISTRIBUTION· NATIONAL AND INTERNATIONAL

The problem of birth-control to-day is thus largely a problem of distribution. Information must be brought, together with the facilities for making use of it, into the social classes and the regions that require them most. There is need both for organisations operating on a national scale, and for an international organisation with the primary function of breaking new ground in territories

which have so far remained virtually unaffected by the ideas and the practice of birth-control.

Such organisations would of necessity be complementary to each other, the former concerned mainly with the problems of distribution within their own territories, the latter with the special problems of territories in which national organisations have yet to be created and fostered.

When the Birth-Control International Information Centre was formed in 1930, its purpose was to spread the knowledge of birth-control all over the world, to help inquirers with information, literature and hospitality, to make arrangements for visitors from other countries to visit the clinics in England and to put them in touch with clinics in other countries, to obtain and make known information on the latest research work on contraception; and to arrange international conferences

This Centre was the outcome of efforts extending over fifty years. The first international neo-Malthusian conference was held in 1900, but by 1930 birth-control leagues had been founded in thirteen countries, and international conferences in leading European and American cities had gathered together a steadily increasing number of birth-control workers from all quarters of the globe. In 1928 a birth-control information centre was formed in London, and two years later, following a successful international conference at Zürich, this was reorganised as the Birth-Control International Information Centre, with Margaret Sanger as its President.

During its short lifetime the Birth-Control International Information Centre has formed close contacts with workers in every continent. Margaret Sanger's pioneer work has continued in the United States, and correspondents of the Centre have contributed to the progress of birth-control knowledge and organisation in Czechoslovakia, Spain, Poland, South Africa, Canada, India, China and Japan

As the movement for birth-control has advanced, moreover, an increasing number of inquiries have reached the Centre from an increasing number of countries, above all from countries in which the depression in recent years of an already wretched standard of life has turned the thoughts of men and women to the possible contribution of birth-control to a solution of their own countries' and the world's economic problems

THE IMMEDIATE PROGRAMME

To fulfil its wider functions the Centre will have to include the following classes of equipment and services

FIRST An international reference library of contraceptive literature, indexed and kept completely up to date

SECONDLY. A museum of contraceptive appliances and technique, which should include models for demonstration purposes, and representative specimens of every important type of modern contraceptive. It would be the function of the Centre not merely to display these appliances, but to evaluate them by reference to all the scientific data on the subject of contraception that comes to its attention. Such models and appliances could serve as a means of conveying instruction on the technique of birth-control to doctors who, for any reason, may find it difficult to obtain direct instruction in European clinics.

THIRDLY Comprehensive data, preferably illustrated by charts, on the organisation and procedure of contraception clinics. This is a subject about which considerable experience has been accumulated in England, Germany and the United States, but which up to the present has not been assembled or sifted or presented in the most useful form for inquirers from countries still lacking in clinic organisations

FOURTHLY All available information about existing legislation relating to the propaganda of birth-control, the

establishment of birth-control clinics, and the sale of contraceptive appliances

FIFTHLY A small bulletin, to be published periodically, to serve as a means of communication between the Centre and affiliated individuals, clinics and organisations throughout the world. Such a bulletin would probably have to be issued in at least two languages

SIXTHLY Facilities for organising international conferences on the medical and other aspects of contraception. Margaret Sanger, President and one of the founders of the Birth-Control International Information Centre, was entirely responsible for the organisation of the international birth-control and population conferences which were held in New York in 1925, in Geneva in 1927 and in Zürich in 1930. It would be one of the functions of the new Centre to take over the immensely important work of organising such conferences in the future. From the previous experience it may be stated definitely that no better, or ultimately more economical, way exists of stimulating active interest in every aspect of birth-control over the widest possible field

AN APPEAL

If you support the Centre's aims because you disapprove of unwilling motherhood or the production of unwanted children, or if you are concerned primarily with its work in creating the indispensable conditions for international goodwill, or if you believe, with the Centre, that the world's economic problems are bound up indissolubly with its problems of population, you are earnestly invited to support it in its work of creating the organisation outlined in this memorandum

Donations should be sent to the Treasurer of the Centre, Mrs. GERDA S GUY. Particulars about the past

and present activities and achievements of the Centre may be obtained from the Director, EDITH HOW-MARTYN, Parliament Mansions, Westminster, S W 1

It may be added that medical practitioners and other interested inquirers of all nationalities are invited to make use of the comprehensive data on the problems and progress of birth-control that have been collected by the Centre, and classified and made accessible in its files

APPENDIX IV

LIST OF BIRTH-CONTROL CLINICS IN THE UNITED KINGDOM

1. Centres Affiliated to the Society for the Provision of Birth Control Clinics.

LONDON

East London Women's Welfare Centre, 6, Burdett Road, Stepney, E. 3 Hours of attendance Monday and Wednesday, 2 30-4 p m

Lambeth Women's Welfare Centre, 53, Ethelred Street, S E 11 Hours of attendance Wednesday, 6 30-8 p m

Walworth Women's Welfare Centre, 153A, East Street, London, S E 17 Hours of attendance Tuesday and Friday, 2 30-4; Thursday, 6 30-8.

North Kensington Women's Welfare Centre, 12, Telford Road, Ladbroke Grove, London, W 10 Hours of attendance Monday, 2 30-4 p m, Tuesday, 6 30-8

PROVINCES AND HOME COUNTIES

Ashington and District Birth-Control Clinic, United Methodist Chapel Schoolroom, Ashington, Northumberland

Basingstoke Mothers' Clinic, Castons Road, Basingstoke. Hours of attendance Friday, 3-4 30 p m

Birmingham Women's Welfare Centre, 22, Masshouse Lane, Near Moor Street and Albert Street, Birmingham. Hours of attendance Tuesday, 7 30-9 p.m., Thursday, 2 30-4 p m

Bristol Women's Welfare Centre, Salford Hall, 14, St James' Barton, Bristol, 1 Hours of attendance Friday, 10 30-12 noon.

- Cambridge Women's Welfare Association, Fitzroy Hall, Wellington Street, Cambridge Hours of attendance Tuesday, 3-5 p m
- Cannock Women's Welfare Centre, Methodist School, Chadsmoor, Cannock.
- Dagenham and District Birth-Control Clinic, King George V Hospital, Five Elms, Dagenham.
- Exeter and District Women's Welfare Association, Co-operative Educational Rooms, 109A, Sidwell Street, Exeter Hours of attendance Friday, 2 30-5 p m.
- Liverpool Mothers' Welfare Clinic, 23, Clarence Street, Liverpool Hours of attendance: Wednesday, 2 30-3 30 p m Friday, 7-8 p m
- Manchester, Salford, and District Mothers' Clinic for Birth Control, 123, Greengate, Salford Hours of attendance Monday, 3-5 p m. Friday, 7-8 p m
- Newcastle Women's Welfare Centre, 670, Scotswood Road, Newcastle-upon-Tyne. Hours of attendance Tuesday and Thursday, 2 30-4 p m
- Northampton Women's Welfare Association, Dychurch Lane Welfare Centre, Northampton
- North Devon Women's Welfare and Advice Centre, 113, Boutport Street, Barnstaple
- Nottingham Women's Welfare Association, 15, Market Street, Nottingham Hours of attendance Thursday, 6-8 30 p m
- Oxford Family Welfare Association, 4, King Street, Jericho, Oxford Hours of attendance Wednesday, 2 30-4 p m (Women) Men By appointment
- Plymouth Mothers' Advice Centre, Beaumont Welfare Centre, Beaumont Park, Plymouth Hours of attendance. Tuesday, 6 45-9 p m
- Sheffield Women's Welfare Clinic, Attercliffe Vestry Hall, Attercliffe Common, Sheffield 9

- Slough and District Married Women's Advisory Clinic, Timberton Hut, Buckingham Avenue, Farnham Road, Slough
- Winchester and District Married Women's Advisory Clinic, 4, The Square, Winchester Hours of attendance Second and Fourth Thursday, 2-4 p m.
- Wolverhampton Women's Welfare Centre, 62, Heath Street, Heath Town, Wolverhampton. Hours of attendance First Wednesday in Month, 2-4 p m

SCOTLAND

- Aberdeen Women's Welfare Centre, 4, Gerrard Street, Gallowgate, Aberdeen Hours of attendance Wednesday, 3-5 p m
- Glasgow Women's Welfare and Advisory Clinic, 123, Montrose Street, Glasgow, C 1 Hours of attendance. Tuesday, 7-8 p.m , Thursday, 3-4 p m
- Edinburgh Mothers' Welfare Clinic, The Dispensary, 21, Torphichen Street, Edinburgh.

2 The People's Clinic, 85, Shepherd's Bush Road, W 6 Hours of attendance Daily from 10-1 and 3-5 p m
All patients are examined and fitted by a qualified woman doctor

3 The Free Clinic for Constructive Birth-Control, 108, Whitfield Street, Tottenham Court Road, London, W 1 Monday to Friday, 10-6 This is the pioneer clinic founded by Dr M C. Stopes and her husband, Captain H. V. Roe The methods taught at this clinic differ in some respects from those at the other clinics, one of the main differences being that the cervical cap is used in preference to the Dutch pessary Patients are seen and fitted by a nurse, but any who, in the nurse's opinion, are abnormal, are referred to a doctor.

4 The Birth-Control Advisory Bureau, 61, Marlborough Road, Holloway, London, N 19 Hours of attendance Monday, Tuesday, Wednesday, Friday, 10 a m -6 p m , Thursday, 10 a m -8 p m This bureau is intended primarily for middle-class women, and the fee for consultation and fitting is one guinea—though a reduction is made in certain cases Patients are seen and fitted by an experienced nurse, but a qualified woman doctor attends periodically and may be consulted by appointment. In connexion with the bureau there is a travelling nurse service for women living at a distance The fee for the travelling nurse is two guineas, plus travelling expenses

5. The Sex Education Centre, The Century Theatre, Archer Street, Westbourne Grove, W 11. At this centre women may obtain information and advice on sex questions and marriage difficulties The following are some of the questions on which advice may be asked how to teach children about sex, distaste for the marriage relationship, the facts of marriage (for girls before marriage), the best ways of preventing pregnancy Any woman who would like to have a talk on one or other of these problems, or have explained to her something she does not understand about sex or birth control or marriage, or any girl who wants advice before marriage, may see the Director, Mrs Chance, on Mondays from 7-9 p m The Centre is open during February, March, May, June, July, October, November, and December In order that there should be no mistake it is necessary to point out that detailed instruction in contraception is not given at the Centre, and that women requiring such instruction are referred by the director to a properly equipped birth-control clinic

GLOSSARY

ABDOMEN.—Belly: the part of the body between the chest and the pelvis

ABORTION —Miscarriage, whether natural or artificially produced

ANTIBODY —A body produced in the tissues of an animal in response to an invasion of germs, certain poisons, and chemically allied substances, and having a destructive effect on the substance under whose influence it was formed

CERVIX —Neck the portion of the womb that projects into the vagina

COITUS INTERRUPTUS —Withdrawal an attempt to prevent impregnation by withdrawing the penis from the vagina before the seed is discharged

CONDOM —French letter a sheath of thin skin or rubber used to cover the male sexual organ.

CONTRACEPTIVE —Preventive device used to achieve birth-control

ECTOPIC PREGNANCY —Pregnancy occurring in any part of the genital tract other than the womb itself

FALLOPIAN TUBE —A slender tube which extends from the upper part of the cavity of the womb to the ovary of the same side

FERTILISATION —The fusion of the male and female seeds.

FERTILITY —Fruitfulness' capacity to produce offspring.

GENITAL TRACT (FEMALE)—All the female reproductive organs, including the ovaries, tubes, womb, and vagina

GONORRHOEA—A contagious inflammation of the genitals due to infection by a germ called the gonococcus, one of the venereal diseases

HORMONES—Chemical substances produced by special organs known as secreting glands. These substances, circulating in the blood, stimulate various bodily organs to activity.

IMMUNITY—The power of a living organism to resist and overcome infection

IMPREGNATION—The act by which the female is made pregnant.

INFECTION—Invasion of living tissues by disease-producing organisms

MAMMAL—Animal that suckles its young

MENSTRUAL CYCLE—The period extending from the beginning of one monthly flow to the beginning of the next

MENSTRUATION—The monthly flow of blood from the womb that begins at puberty and continues (unless interrupted by pregnancy or other special cause) till the change of life

MICRO-ORGANISM—Germ

ORGASM—The crisis of sexual excitement

Os.—Mouth the entrance into the womb situated in the neck of the womb

- OVARY.—Organ inside the female pelvis which manufactures the ova
- OVUM (*plural*, OVA) —The female reproductive cell which can unite with the seed from a male to form a new life
- PELVIS —The part of the female body which contains the organs of generation.
- PENIS —The male organ of copulation.
- PLACENTA.—The organ within the womb which establishes communication between the mother and the child
- PORNOGRAPHY —Indecent literature and art.
- PREGNANCY —The condition of being with child.
- PUERPERAL SEPSIS —Blood poisoning due to child-birth or abortion
- RECTUM —The lower end of the bowel.
- SCROTUM —The pouch which contains the testicles and their accessory organs
- SECRETION.—The process by which glands manufacture special chemical substances, also the name given to a substance produced by the activity of a gland.
- SEMEN —The fluid ejaculated by the male in sexual intercourse It is a suspension of spermatozoa (i e the actual seed) in the secretions from various genital glands
- SEMINAL FLUID —The thick whitish liquid produced in the male by the testes and accessory glands of the genital tract.

SPERMATOXIN—A toxin destructive to spermatozoa; especially an antibody produced by injections of spermatozoa

SPERMATOZOON (*plural*, SPERMATOZOA).—Male generative seed which can unite with an ovum to form a new life.

SPERMICIDE.—A sperm-killing substance.

STERILITY—Bartenness: inability to bear children.

STERILISATION—The procedure by which an individual is made incapable of reproduction.

SYPHILIS—A contagious venereal disease due to infection by a germ called the *Spirochæta pallida*.

TESTICLE OR TESTIS.—The male sexual gland in which spermatozoa are formed.

URETHRA—The passage from the urinary bladder.

UTERUS.—Womb.

VAGINA—The female organ which receives the penis in sexual intercourse

WOMB—The hollow muscular organ in which the embryo is housed and nourished during the period of pregnancy

LIST OF BOOKS FOR FURTHER READING

- Birth Control and the State.* By C P Blacker. Kegan Paul.
2s. 6d
- Birth Control on Trial* By L. S Florence George Allen
& Unwin. 5s.
- Chemistry and Physics of Contraception, The* By
C I B Voge Jonathan Cape. 12s 6d.
- Clinical Contraception.* By Dr. Gladys M Cox. William
Heinemann (Medical Books) Ltd 7s 6d
- Comments on Birth Control.* By Naomi Mitchison Faber
& Faber. 1s.
- Contraception; Its Theory, History, and Practice.* By
M C. Stopes John Bale, Sons and Danielsson. 15s
- Control of Conception* By R L. Dickinson and L. S.
Bryant Baillière, Tindall & Cox 24s
- Cost of English Morals, The* By Janet Chance Noel
Douglas 5s
- How I Run My Birth Control Clinic.* By Norman Haire.
6d.
- Love, Marriage, and Birth Control.* By Lord Dawson of
Penn Nisbet 1s
- Night-Hoers, The.* By A M Ludovici. Jenkins 7s. 6d.¹
- On Being a Father.* By K. M. Walker Jonathan Cape 5s.

¹ Against Birth-Control

- On the Management of a Birth Control Centre* By Evelyn Fuller Walworth Women's Welfare Centre, 153A, East Street, Walworth Road, S E. 17 1s.
- Pivot of Civilization, The.* By Margaret Sanger Jonathan Cape. 6s
- Population.* By A. M. Carr-Saunders Oxford University Press 21s
- Population.* By Harold Wright. Nisbet. 5s
- Practice of Birth Control, The* By Enid Charles. George Allen & Unwin Ltd 10s. 6d
- Practice of Contraception, The* By Margaret Sanger and Hannah M Stone The Williams & Wilkins Company. 21s.
- Problem of Population, The.* By Harold Cox Jonathan Cape 6s
- Report of the International Medical Group for the Investigation of Birth Control* Birth-Control Investigation Committee, 26, Eccleston Street, S.W.1 2s
- Sex Factor in Marriage, The* By Helena Wright, M B., B S, Williams & Norgate. 3s. 6d
- Some More Medical Views on Birth Control.* Cecil Palmer. 7s 6d.
- Student's Manual of Birth Control, A.* By Lily C Butler Noel Douglas 1s 6d
- Symposium on Birth Control* The Practitioner (September 1933) 4s

PUBLISHER'S NOTE

In several places in this edition, as in the first and second, the author has introduced the names and addresses of certain firms of manufacturers, and recommended some of their products. It has been suggested that the author or publisher has, or has had, some interest in the sale of these products. There is no truth whatever in this suggestion. The author has learned from experience that many persons do not know where they can obtain reliable contraceptives, and he has introduced these names and addresses for the sole purpose of helping them.

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