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THE CASE FOR STERILISATION

by

LEON F. WHITNEY
Director of the American Eugenics Society

With an Introduction and Notes by
NORMAN HAIRE, Ch.M., M.B.
and two diagrams

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EDITOR'S INTRODUCTION

The menace of the unfit is not a new problem, nor confined to any one country. It is age-old and world-wide. At some periods, and in some places, it is solved by the crude method of infanticide—the destruction of the child after birth. This solution being out of consonance with our ethical views, we have to consider whether we are to accept as inevitable the burden which has to be shouldered by the rest of Society if unproductive, and often actively anti-social, individuals are permitted to be born without Society making any attempt at all to check their numbers, or whether, on the other hand, we are to make some attempt to check them.

Prudent sociologists have always interested themselves in population questions, but in the modern movement, which began with Malthus at the beginning of the nineteenth century, the emphasis was laid on quantity rather than quality. An active attempt to deal with the problem of excessive reproduction began in the 70's of last century, and led up to the Birth Control movement as we know it to-day. In most European countries the decline in the birth rate went on more or less slowly until the War in 1914, but post-War conditions, economic and international, have speeded up the decline to such a point that, in many of the most highly civilised coun-

tries, the birth rate is no longer very much in excess of the death rate, and it is already necessary for sociologists to take into account the fact that within comparatively few years some populations will become stationary or actually begin to decrease. Some people view the prospect of a stationary or decreasing population with alarm, though for my part I am prepared to welcome a considerable decrease in the population of Great Britain.

The modern birth control movement has been strikingly successful in bringing about a decrease in the birth rate, but unfortunately, as its opponents quite rightly point out, the decrease has not been properly distributed. I do not believe that the financially richer classes of Society are necessarily innately superior to the poorer; but there is no doubt that many stocks which have for a number of generations been financially poor, have suffered from the physical and mental environment which poverty inevitably imposes. This does eventually bring about a certain measure of physical and mental inferiority in the poorer classes of a population as compared with the richer classes, though it must be emphasised that the coincidence of a higher income with physical and mental superiority is neither exact nor universal.

The richer classes have had much easier access to birth control information, and their circumstances have made it much easier for them to take contraceptive precautions, so that the decline in the birth rate has been much more marked in the richer, and very broadly speaking superior, strata of Society, than among the poorer, very broadly

speaking inferior. This has had a certain dysgenic effect. As contraceptive information becomes more widely disseminated, it is probable that the difference of birth rate between the richer and the poorer classes will become less marked, and improved economic and social conditions may wipe out mental and physical inequalities between the classes. It is possible that modifications in our economic system might bring about a better distribution of national resources, and so improve the environment, and eventually the physical and mental equipment, of many of our poorer stocks.

In the meantime the burden of the unfit, unproductive, and even anti-social members of Society is becoming ever more difficult for the rest of Society to carry, and to me it seems urgent that something should be done to limit the burden, by encouraging unfit people to abstain from parenthood, or at any rate to keep the number of their children within limits which shall not impose too great a handicap on their superior fellow-citizens. In general, this end may be attained by contraception, but for stocks which are so unfit that complete childlessness is desirable, sterilisation is the best solution.

The author of this book, who is the Director of the American Eugenics Society, has in this volume treated the whole question in a way which, I think, places all the essential information in an attractive form before the reader. In general, I am in substantial agreement with him. I have not hesitated to use an editor's privilege to emphasise some of the points he makes, to add comments which I think may be helpful, and to mark my dissent where I find myself differing from him.

I have anglicised his spelling, and removed one or two of the less familiar, and to English readers less pleasing, American idioms, but have otherwise left his writing untouched. This English edition contains some additions to the bibliography which appeared in the American book.

NORMAN HAIRE.

HARLEY STREET
LONDON, W.1
January 16th, 1935

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Choose good grandparents.

—*Dr. Oliver Wendell Holmes*

Three generations of imbeciles are enough.

—*Justice Oliver Wendell Holmes*

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CHAPTER I

STERILISATION A BURNING ISSUE TO-DAY

Since the year 1934 opened there has been a startling increase in the attention given to the subject of sterilisation, an increase which among American newspaper-readers is probably due largely to the news from Germany that Hitler has undertaken to have some four hundred thousand Germans sterilised—nearly a hundredth part of the population. Whether this order is or is not directed exclusively at the Jews, it is so grave a decision as to justify fully the recent discussion of it among thousands of persons in our own country who may never before have taken any real interest in the subject.*

Many far-sighted men and women in both England and America, however, have long been working earnestly toward something very like what Hitler has now made compulsory. Ridiculed, even vilified, they have fought

* Havelock Ellis long ago pointed out that legislation providing for compulsory sterilisation might be misused by some political party or other group within the State. For that reason he has always been opposed to compulsory sterilisation, though an ardent advocate of voluntary sterilisation. Many of us, who preferred voluntary sterilisation, were yet prepared for compulsion in certain cases as well, since we thought that voluntary sterilisation was not enough. We argued that legislation would be no more open to abuse on this point than in the matter of capital punishment or certification of lunatics. We felt confident that in a democratic state no abuse could occur. But, alas! the horrors which have occurred in Nazi Germany have taught us to be less confident, and I am now in complete agreement with Havelock Ellis.—N. H.

courageously and steadily for the legalisation of what they consider a constructive agency in the betterment of the race. And now they stand watching their fellow-countrymen awaken suddenly to a keen and inquiring interest in sterilisation, and ready to explain what it is, why it is needed, and how it should be guarded. The average American, to whom it has been only a strange or sensational term, now wants to know just how it may be counted on to work in the elimination of undesirable elements in society, along with the burden so long imposed on us by their multiplication and their helplessness. Sterilisation has something to do with criminals and feeble-minded—so much the man-in-the-street knows; it has something to do with the question of birth-control, some connection with inheritable diseases. Such ideas are to be gathered from the reading of newspapers and popular magazines. But beyond these he has little information; and he is going to need a good deal more if the issue in our own country is to be considered judiciously and legislated on with any degree of effectiveness.

Holding no brief for Herr Hitler, approving his action only because it has served to bring dramatically to public attention a movement that I have long been interested in, I hope in this book to clarify the subject of sterilisation in all its most important aspects; to present the case in non-technical language as far as possible, and to help my readers towards a better understanding of the purposes underlying the sterilisation movement.

My own enthusiasm has been developed through my

work, during several years, as Executive Secretary of the American Eugenics Society, an organisation that acts as a clearing-house for all ideas relating to racial improvement, including sterilisation, and as an active agent in the enactment of new laws as well as in the enforcement of old. In the course of considerable study of the problem of sterilisation and related questions in genetics, I have gathered a good many experiences and observations that support my whole-hearted enthusiasm for the movement and some of these will appear in the pages to follow. I include them because they prove that sterilisation is no mere academic question—it has an immediate and vital bearing on human life: on our personal happiness, on the welfare of our families, on the individual and the community pocket-book, on the quality of our race in the long run.

Sterilisation is at present, of course, a controversial issue. Not every one agrees with Mr. Justice Holmes that "it is better for all the world if Society can prevent those who are manifestly unfit from continuing their kind." How bitter the opposition is, particularly in some religious quarters, will appear in subsequent chapters. But dissent comes not only from these quarters; it emanates too often from persons who have no religious scruples in eugenic matters but who are ill-informed, or prejudiced, or overhasty in taking their stand on half-baked notions. And finally there are the thousands who honestly want to think straight on this critical question but who have never had the facts presented to them clearly and fully.

To the pocket-book aspect of our situation to-day,

too, we owe much of the interest expressed in sterilisation. Taxes and charitable funds in huge amounts annually go to support institutions crowded with the degenerate, the unfit, the less desirable members of society; and every citizen feels the pinch. Not that the whole of our burden of relief is due to degeneracy; much of it has been created by the special economic conditions of the past few years. Competent and useful citizens by the million have been thrown on charity. But when these are once more employed and self-supporting, there will still remain a heavy and increasing burden of taxes and charity which can be reduced for us and for our children after us only if we take such steps toward racial betterment as are represented notably by sterilisation. Until we take that step, the feeble-minded person, the habitual sexual criminal,* and the men and women afflicted by inheritable disease will all continue to propagate their kind; women who cannot or ought not to bear any more children will go on bearing; our institutions will get more and more crowded and call on our pocket-books more and more often. And meanwhile, what of the quality of the race?

The question is tied closely with the matter of sterilisation, more closely than is commonly realised. Many a person who fully appreciates the desirability of the eugenic movement in general is likely to shy off at the mention of sterilisation, because the word arouses

* Our author's moral fervour seems to me to carry him away here. So far as I know there is no evidence that sexual criminality is hereditary. In any case, "sexual criminal" is a very indefinite term. A man or woman may be classed as a sexual criminal in one country for acts which are perfectly legal in another. Thus in some countries the commission of a homosexual act by a female is a crime. In England and many other countries the same act is not a crime.—N. H.

emotional reactions. If he is naturally kind-hearted, and has an inadequate comprehension of the subject, he tends at once to put himself in the position of the other fellow and ask himself how *he* would like being the object of this form of social discipline. But such a reaction is often grossly imaginary, conjuring up fears and objections that are groundless. It is hardly more than a kind of protective reaction that doubtless has some connection with individual and race survival, and it can and often does push us toward rationalisations and unsound decisions. This fact is well attested in the personal experience of anybody who has had much to do with social planning or social work in general, for it is the human trait that is utilised as the basis of appeals for charity. Any organisation seeking help for a group of unfortunates knows how effectively it can plead if it makes you and me feel that we are somehow identified with those for whom the money is needed. And so it is with many of us when first we learn of the sterilisation movement; our instantaneous reaction is, "But suppose I were ever to be the victim of the sterilisation law!"—a reaction which in itself betrays less than adequate understanding of the subject, since (as I shall show later) a substantial number of the very men and women who need sterilisation either submit to it quite willingly or indeed welcome it.

No—our instinctive revolt is negligible, both in itself and in its relation to the practical problem. If it develops into active opposition, or—as often happens—into a tendency to abuse the supporters of sterilisation, it can be successfully met only by the wider spread of

enlightened understanding. The case for sterilisation rests on sound principles, it has the highest possible humanitarian aims and the support of countless scientific authorities, and it is growing more vitally important in our lives every day. No one can deny that our present trend is toward a planned society—planned biologically as well as economically; and no planned social order is attainable without careful consideration of the kind of people we want to have forming the race of the future. Inevitably the question arises, How are we to achieve the desired effect? And the answer is: Cut off the useless classes by preventing their reproduction, and increase the better—that is, the useful and self-sustaining, not necessarily the more brilliant. For the sake of our children if not for our own sake, we must reduce the terrific burden of degeneracy that we have loaded on our shoulders through our policy in the past. I believe that sterilisation is but a part of the general discipline that we call social planning, and it is from this point of view that I shall discuss it.

This is to be no "neutral" book—it is frankly advocacy of a worthy cause that I have for many years studied in all its aspects. I have even debated it on a number of occasions, sometimes taking the side against sterilisation. But after reading all that I could find on the subject and weighing the evidence carefully, I am now wholeheartedly in favour of it under certain strictly defined conditions, and it would be hypocritical to assume an attitude of neutrality. But by advocacy I mean educational advocacy of the most disinterested sort. In two chapters I have brought forward all the objections that

I have ever heard urged against sterilisation, answering these as honestly as I can and granting that there is weight in some of them. But the facts and figures presented throughout the book will prove, I believe, that the preponderant weight in the end will be found on the side of those who are urging sterilisation. My position is not that of the scientist of earlier days, who was supposed only to collect facts and was not expected to publish the views he had derived from them except through learned scientific monographs that could hardly reach the people. In such a matter as sterilisation it is the people who must be reached; they can form their own beliefs and direct legislation wisely only on the basis of the discoveries and the opinions of the scientist.

CHAPTER II

WHAT IS STERILISATION?

From my own observation I can testify that a good deal of the opposition to sterilisation arises from ignorance of what it really consists in. *Sterilisation is not castration.* It does not completely destroy sexual activity, nor does it interfere with those processes, psychical and emotional, which are dependent on normal sex functions. It differs from castration in being partial, its sole effect being to prevent procreation. The person who is sterilised in the ways that I shall describe as satisfactory continues to enjoy his or her normal sexual activity but is unable to produce children. I stress this distinction because it is of the utmost importance and because I have encountered so many people who have the wrong idea.

In order to understand the working of the various recommended procedures for sterilising, it will be useful to review briefly the essential points in the anatomy and physiology of the sex organs. To take the female organs first: the most important are the ovaries, ductless glands whose functions are closely linked with the entire gland system. Each of the two ovaries contains innumerable microscopic cells which develop into ova. During every cycle of 28 days there is a period of growth

for some of these cells and of death for others; this period of growth and death being closely connected with the female sexual feelings. Many studies have been made on the sexual cycle in women, one of the most important being described in a monograph by Dr. George N. Papanicolaou of Cornell University, which with other work on correlated facts about reproduction shows that the cycle runs through the following four stages:

First Period. There is a general cleansing process; the lining of the uterus breaks down, is sloughed off, and is replaced by a new lining. Deep within the ovaries (lying on each side of the uterus) cells are beginning to grow toward the surface. During this period there is a diminution in passion on the part of most women.

Second Period. This is known as the copulative period. Ovarian cells which will eventually become ova (eggs) are growing rapidly, each within a sac called a follicle. This sac contains also a fluid known as the follicular hormone, which is absorbed into the blood and for good reasons is believed to be the chemical cause of the desire for copulation. The cells and their surrounding follicles grow larger, until presently one of the follicles bursts. When this has occurred, it marks the virtual end of the copulative period.

Third Period. The post-copulative. As soon as one follicle has burst, its contents are liberated; a growth then starts in the place where that follicle was, and similar growths start simultaneously in the follicles that were not ruptured. In each case the growth not only fills the follicle but increases to very large proportions—so large indeed that, if we consider the ovary to be

about three-quarters of an inch in diameter, the growth itself may reach a quarter of an inch in diameter, or more. The growth is called the *corpus luteum* or yellow body, and it develops faster than any other body of cells. This process of development is over in a few days. Furthermore, the *corpus luteum* secretes a hormone which—working probably with other hormones—lessens the desire for copulation, so that for a few days there is a marked let-down.

Fourth Period. The pre-menstrual, during which the ovaries are in a more or less quiescent state. At this time there is quite generally in women a desire for copulation, such as is not known in the lower animals during the corresponding period.

So much for the 28-day cycle. Now let us see what happens in the rest of the reproductive tract. Alongside the ovaries are the fimbriæ, bodies that are something like sponges, attached to the upper ends of the Fallopian tubes. These are the tubes connecting ovaries and uterus, their purpose being to carry the ovum to the uterus, where (if fertilised) it may develop into the embryo. Now, during copulation (sexual intercourse) the sperm cells contained in the male's semen are moved upward in the Fallopian tubes until they come to the fimbriæ where they await the appearance of the ova. As we reach this face we are again at the point where we may discuss sterilisation.

How is sterilisation of the female to be effected with the desired good results and with no bad ones? Obviously, it must not be done through the removal of the ovaries, since the sexual rhythm and perhaps even

the whole sexual life would thereby be upset, possibly causing still other physiological disturbances. What, then, is best? The question is being answered at present in several ways.

Salpingectomy. The operation most often performed to-day for sterilising women is known as salpingectomy, a simple and safe surgical method of rendering the Fallopian tubes impassable to the male sperm cells in their upward movement toward the fimbriæ. Once these tubes have been rendered impassable by means of this operation, which, of course, can only be performed by a skilled surgeon, fertilisation cannot take place, the unfertilised eggs being absorbed in the same way in which the other thousands of eggs within the ovaries are absorbed. When so performed the records of this operation prove that it is not only simple, but not attended with any particular danger.

This has now replaced an older and less efficient operation in which natural growth over a period of time in a number of cases (18 per cent.) rendered the patient again fertile.

Salpingectomy has been performed thousands of times, without one recorded case of serious complication or of death. Whether salpingectomy can be undone later —that is whether by further surgery fertility may be restored—is still questionable. So far as I can learn this operation has never been attempted, though many argue that it is practicable.*

* Salpingectomy should be much more strictly defined than it is by the author. Salpingectomy means the actual ablation of the Fallopian tubes. "Rendering the Fallopian tubes impassable to the male sperm" includes not only salpingectomy proper, but also many other operations, such as ligature of the Fallopian tubes, or burial of the ovarian ends of the Fallopian tubes either

Searing. Still another operation similar in effect has been devised by Dr. Robert L. Dickinson of New York. He reasons that it is better, when practicable, to effect the sterilisation without making an incision, and he suggests searing within. This operation also is a simple matter when in the hands of a skilled surgeon, and leaves the patient without any permanent bad after effects or any appreciable amount of surgical shock.* The relative value of searing as opposed to the use of the knife is a surgical one and the opinions of surgeons vary upon this point. At any rate both methods are effective in the sterilisation of women. Both of these operations are better than the use of the X-ray which will next be mentioned. Searing, too, in the belief of some authorities, may be undone at a later date if there is reason for the restoration of the fertilising process; though like the other this point is questionable.

The signal advantage of either salpingectomy or searing is that the operation not only prevents conception but also does not interfere in any way with the normal sexual activity of the woman. This is extremely important to bear in mind in connection with the problem of sterilisation.

X-ray. A third method must be described, if only by way of warning. In private practice the X-ray has been used, and more often than is warranted by the

in the tissues of the broad ligaments or in the tissues of the anterior abdominal wall. This last operation is, in my opinion, the best. It offers the greatest probability of restoration of fertility if the ovarian ends of the Fallopian tubes are returned to their ordinary position by a second operation.—N. H.

* Dickinson's searing operation is unsatisfactory. The surgeon is working by guess in the uterine cavity, which is not accessible to sight or touch, and must simply hope that he is searing the right spots. It is a hit or miss operation, and a miss is more likely than a hit.—N. H.

results. Its use is now decreasing, and some of the reasons for this may be cited. Although radium and the X-ray have been used with success in many sterilisations, these two methods have often produced either failure or at best unsatisfactory results. One common effect of treatment by radium or the X-ray is to stop menstruation — which virtually constitutes castration. The function of the ovaries is destroyed, and the hormones are no longer produced.*

This is not the worst result, however; there are two other considerations of the utmost importance. The first relates to the effects of radium or the X-ray when used to bring about temporary sterility. This is sometimes desirable or necessary, and the treatment is not continued long enough to destroy the ovarian function; normal menstruation is not interfered with, though conception cannot take place. When, in time, the effects pass off and the woman regains her fertility, there is likely to be trouble; for among the children conceived shortly after the treatments, it has been found that a large proportion were microcephalic idiots—i.e., with the tops of their heads abnormally small. This type of child seldom has intelligence and is usually short-lived. If it survives it becomes the sort of sad "freak" that one sees in side shows. If the cause of such monstrosities lies in an unexpected pregnancy following close on radium or X-ray treatment, the latter is certainly wrong as a method of effecting temporary sterilisation.

* The great disadvantage of X-ray sterilisation is the impossibility of ensuring exactly the right dosage. If the dosage is excessive it may damage the endocrine function of the ovaries, and if one tries to avoid this by giving smaller doses, permanent sterility may not be obtained, but only temporary sterility. If fertility returns, future offspring may be damaged, deformed, or defective.—N. H.

The second consideration is the influence of the X-ray on the germ-plasm. Experiments on lower forms of life have shown that mutations (permanent changes) of the germ-plasm can be induced rather simply by the use of X-rays; and the changes observed thus far have always been downward in the evolutionary scale. A corresponding effect on the human germ-plasm—permanently altering its basic cells—would imply a tremendously important change in the next generation and all future generations.

But whatever weight we may or may not give to either of these considerations, it is certainly too early to put much trust in radium or X-ray sterilisation; the method has been in use for too short a time to produce results that can be checked. The safest course at present is to say: "When in doubt, don't."

Male sterilisation presents a far simpler problem, as will be evident on a consideration of the anatomy and physiology of the male sexual organs. Here, as in the female, the sex glands (gonads) constitute the most important part of the mechanism. In the male these glands are the testicles. They are nourished by a large blood supply and are made up of millions of tiny tubes called the seminiferous tubules, each of which is lined with cells. These are the germ cells, and from them are manufactured the *spermatozoa* (or sperm cells), which correspond to the ova in the female. Every cell divides several times, each time working towards the centre of the tube, until eventually, after several divisions, they change into cells that are able to move about; under the

microscope at this stage they look like tadpoles. They are now moved along the tubules until they reach the epididymis, a much larger tube with many twists and turns which lies just outside the testicle, and here they are stored.

These spermatozoa are extremely minute; we should have to put hundreds of them together in order to make a spot large enough to see. The head of each spermatozoön is its more important part, its tail (about nine times as long) being for the purpose of locomotion.

The channel by which the spermatozoa leave the epididymis is what must interest us in connection with sterilisation. This is the *vas deferens* or sperm-duct, a tiny, flat, thread-like tube running from the testicle, entering the abdomen through the groin along with the blood-vessels and the nerves, and passing around the bladder. There it meets the prostate gland, and at that point two vesicles or ducts join with it. It is in these ducts that the *semen* is stored—i.e., the fluid that carries the sperm.

When seminal emission occurs, the sperm cells move out through the seminal ducts, and along the *vasa deferentia*, and mix with the prostatic and other glandular secretions to constitute the seminal fluid. Since male fertility depends on the sperm-cells, it is evident that the best way to sterilise a man is to prevent the sperm-cells from reaching the semen; and this can be done by a rapid and skilled minor operation in the surgeon's office.* This preventive principle was the basis of Steinach's operation, so much discussed a decade ago. Dr. Steinach decided that if the sperm were not allowed to leave the

* See footnote on p. 17.

testicles at all, the energy thus retained would put new life into an old man; this was his "rejuvenation" process. But an important distinction must be noted between Steinach's operation and the one performed for sterilisation: Steinach, in keeping the sperm from passing, obstructed the vas in both directions—the sperm not only could not pass farther along the vas deferens but also could not issue from the vas at all, remaining instead in the testicle. This set up a degenerative process in the testicle that made it incapable of producing sperm—a very bad result, according to Steinach's critics. The vasectomy used for sterilisation, on the contrary, redirects the sperm so that it can be discharged into the scrotum (the sac that holds the testicles); thus the testicle continues to produce sperm, which are merely absorbed into the scrotum.*

This matter of the absorption of the sperm is responsible for some of the objection that exists to the operation. Many persons have thought that it must be harmful;

* The author completely misunderstands Professor Steinach's theory. What Steinach said was that, if the vas deferens was tied near its testicular end, the sperm cells could no longer find an exit, and as a result the sperm producing parts of the testicle diminished their functional activity. This diminution of spermatogenic function is, according to Steinach, accompanied by an increase of functional activity of the interstitial part of the testicle, which produces the testicular hormone; and as a result of improved testicular hormonal secretion the patient's physical, mental, and sexual energy was observed to be benefited. Steinach's view is not accepted by all authorities. It is particularly questioned by authorities who have no personal experience of the operation, and by investigators who have not observed the beneficial results which Steinach describes, generally because they have not used the technique which Steinach recommends. Other observers have noted the benefits described by Steinach, but attribute them to "auto-suggestion" on the part of the patient, or "suggestion" on the part of the surgeon. This explanation is not satisfactory, because it will not explain away the exactly similar results which follow the operation in animals. It is difficult to imagine how one could reinvigorate a senile horse, dog, sheep, guinea-pig, rat or mouse, however authoritatively one explained to it that it had had a rejuvenation operation and should feel much better as a result, if the improvement were due solely, or even mainly, to suggestion.—N. H.

they urge that since there is no special mechanism provided for taking care of it, the process may lead to disintegration and decomposition. But the fact is that the human body is capable of absorbing harmlessly much larger objects than the sperm or the ova. It is not uncommon, for instance, for an embryo to develop normally during several months and then gradually become absorbed with no harmful effects.

Vasectomy is the standard operation in use for sterilising men, and it is so simple as to require hardly more than an office call on the physician. It can be done in a few minutes and there is practically no risk of complications if proper sanitary precautions are observed. The operation for appendicitis, appendicectomy, in an average case with no complications, is very much more serious than vasectomy which can, perhaps, be better compared, for importance, with a tonsil operation. And even here the balance favours vasectomy since there is no risk of hæmorrhage or risk of any kind beyond that of surgical cleanliness. It is as simple as that—and no complications have ever been reported as supervening.

Ether is not necessary, but the operation need not be painful, since the patient can have either gas or a local anæsthetic.*

The question has often been raised, by those who

* It is true that some surgeons perform the operation of vasectomy in their "office," or, as we should say, "consulting room," and then let the patient go home. I am not in favour of this. Local anæsthetics depress the vitality of the tissues and delay healing. The operation should be performed under a general anæsthetic, preferably in a nursing home or hospital, though it may be done in the patient's own home, and the patient should be kept in bed for at least two or three days. A considerable amount of rest is necessary for a week, for the wound is in such a position that the movements of walking delay healing.—N. H.

have learned of this operation, whether it can be corrected—undone—in case this be found advisable. The point is as yet undetermined: many surgeons are confident that it can be done effectually, while others are doubtful. Such a correcting operation is a far more delicate procedure than the original vasectomy, though it is not dangerous; one side only would have to be reconnected, since the sperm-cells from one testicle would be more than enough to insure fertility.*

Sterilisation through the entire removal of the testicles, as a therapeutic measure, need not be considered here, being a medical rather than a eugenic point.

It can hardly be urged, evidently, that the operation, either in the male or in the female, is a very serious matter. A woman who is sterilised spends two weeks in bed at the expense of the community; a man may be put to bed for a week, though actually he is able to go about his work again almost at once if the bandaging has been done carefully. In both cases, as soon as the incisions are healed the thing is over. Compare these after-effects with those of another public health measure, vaccination. In the latter, and in various serum treatments, there are often serious and painful after-effects, which among many people give rise to doubts and even to active opposition; yet it is obviously the feeling of the law-making majority that this constitutes a risk that must be taken for the good of the

* Professor Schmerz, of Gratz, in Austria, gave evidence under oath in a court of law that he had successfully restored fertility by a plastic operation on the sperm ducts, after having sterilised patients at an earlier date by vasectomy; and he brought forward some cases in proof of his statement.—N. H.

community—that the benefits accruing from these measures far outweigh the occasional and exceptional harm done. And we must add to vaccination and serum treatments this newer health measure, sterilisation, as at least equal to them in potential benefit to the race. It differs from them in tending to permanently eliminate misery.

A very important consideration, naturally, is the effect of either operation on the subsequent sexual life of the patient. It can hardly be said too emphatically that normal sexual activity continues unimpaired. Desire is not reduced, and the sexual act can take place just as before; the only difference being that now the sterilised person cannot create a child.*

As for that general comfort, happiness, and sense of well-being that are produced by normal and unimpeded sexual functioning, the effect of the operation will be discussed in Chapter IV.

The sterilising process is already at work naturally, has indeed always been at work, in a way that nobody wants to see continued. It is mentioned here only because so few person realise that it exists. I refer to the sterility brought about by prostitution. The great majority of prostitutes are sterile because of venereal infection.† However much we may approve of the

* It is important to point out that the patient still has a seminal emission at intercourse, and that the fluid looks and smells like ordinary semen; it is only when it is microscopically examined that any difference can be noted. It is then seen to contain no sperm cells.

† The author's moral fervour is running away with him. There is no reliable evidence to substantiate the statement that the great majority of prostitutes are sterile at all, or that they are sterile because of venereal infection. If we disapprove of prostitution we may think that this statement *ought* to be true, but we must not indulge ourselves in wish-fulfilment phantasies.—N. H.

result (that they cannot produce children), we must realise that their venereal disease is carried to many innocent persons, who may thus be rendered sterile against their wills. For prostitutes are the chief spreaders of syphilis and gonorrhea. They are, moreover, predominantly of low mentality, as shown in Dr. Tage Kemp's study of Copenhagen prostitutes.*† Half of the women he examined had the intelligence of morons or under. Nearly three-quarters suffered from active venereal disease. Only 35 per cent presented no psychic abnormalities. In our own country we may read similar findings from Drs. Yoakum and Yerkes,‡ who in their *Army Mental Tests* have this to say about the intelligence of prostitutes in the United States:

In several hundred cases investigated by the psychologists, 53 per cent of the women were ten years mental age or less; 10 per cent were so feeble-minded that they should have been placed in custodial institutions. A large percentage of those who tested above ten mentally showed marked evidence of mental instability and in some cases definite mental disease. A relatively small number could be said to be mentally normal.§

If Nature is working the sterilisation of prostitutes

* *A Study of the Causes of Prostitution*, a paper presented before the International Eugenics Congress, New York, 1932.

† There is no reliable proof that prostitutes are predominantly of low mentality. Certain sets of statistics may be brought forward which suggest this at the first glance, but it must be remembered that these statistics are collected mainly from prostitutes who have fallen into the hands of the police, i.e., prostitutes who did not have sufficient intelligence to order their lives properly. It would be a great mistake to draw conclusions from this type of prostitute, and to attempt to apply them to prostitutes in general.—N. H.

‡ Before taking these remarks about prostitutes too seriously, a similar examination of other groups in the community should be made for comparison. Intelligence tests of large numbers of soldiers during the War gave much the same sort of result.

§ C. S. Yoakum and R. M. Yerkes, *Army Mental Tests*, New York, 1920, p. 196.

through their venereal disease, and thus preventing the propagation of other undesirables, she is in a sense the ally of those who seek the same end through artificial sterilisation; but her method is hardly to be encouraged, if its means is venereal disease.

CHAPTER III

DOES STERILISATION WORK SATISFACTORILY?

One gratifying feature of the task we have before us is the wealth of available information already assembled in the form of records. Many thousands of men and women have been sterilised under the laws of the United States, and thousands of others have been sterilised privately. The operation is gaining favour among many classes of people and on several different grounds. By this time, therefore, there are enough data accessible to help us to determine, provisionally at least, the answers to two important questions: Has sterilisation proved effective? What do the sterilised subjects themselves think about it?

During several years before 1929, Mr. E. S. Gosney and Dr. Paul Popenoe of Pasadena, California, conducted a study on many aspects of sterilisation, a study based in part on questionnaires and in part on direct interviews. The results of this study are found in their *Sterilisation for Human Betterment** and in a series of eighteen papers.† Two of these papers deal with the effect of sterilisation on the patient, one with the attitude of the patient toward

* *Sterilisation for Human Betterment: a Summary of 6000 Operations in California, 1909–1929.* New York, 1929.

† For their titles see Appendix A.

the operation, and another with the attitude of the patient's relatives. The complete results constitute one of our richest mines of concrete facts and figures on the subject, and it is from the Gosney-Popenoe data that I shall draw much of the evidence in this book.

The answer, in California, to the first question above is contained in the fact that of the 2500 women who were sterilised, only four subsequently became pregnant, these four having been sterilised by the old type of operation referred to on page 11; the proportion revealing the superior effectiveness of the newer type of operation.

Equally important, however—perhaps even more important—is the reaction of the patients. How many of them have been satisfied? Do they feel remorse over no longer being capable of having children? Do they wish that they could have their reproductive powers restored? The answers to these questions will appear in our discussion of the conditions found among the various classes into which the sterilised may be grouped. I believe that we may take the answers with a considerable degree of assurance that they represent the real feelings of thousands of subjects, for I myself have not only examined carefully all the public records that I could find, as well as such studies as that by Gosney and Popenoe, but also have interviewed in person a considerable number of people who have been sterilised; and*

* I have had the opportunity to examine some hundreds of patients who have been sterilised, and among these I have never noted any bad effects, and often noted considerable improvement. In some of these patients the operation was carried out primarily for sterilisation, while in a great many of the males it was carried out primarily for so-called "rejuvenation."—N. H.

I repeat that our experience with the operation is sufficiently extensive by now to warrant positive assertion that its results are predominantly beneficial.

The classification offered here needs a preliminary definition of some of its terms if misapprehension is to be avoided. By birth-control, for example, is not meant abortion, or infanticide, or any of the other things that are often wrongly put forward as its equivalents; it means merely the prevention of conception, any method by which the male sperm is prevented from reaching the female ovum and thus starting a new life. When, again, I speak of "therapeutic reasons" for sterilisation I am referring to the cases in which some existing pathological condition can be cured or arrested or prevented from getting worse only by sterilisation. Finally, it may be useful to clear up certain general misconceptions of the meaning of "eugenics." Too many people, I find, confuse this with genetics. Now genetics is the study of the mechanics of heredity; it will be discussed in the chapter on Mendelism. Eugenics is quite another matter. It has nothing to do with sex hygiene, or with anti-vice movements, or with State-made marriages, or with the birth of babies to unmarried mothers; it is not a plan for creating a race of supermen. It has been called all these things by persons who get their ideas from news channels of rather less than perfect authenticity. What eugenics really is has been perfectly defined by Francis Galton, who coined the term and who was one of the greatest scientists of all time:

Eugenics is the study of all the influences under social

control which may improve or impair the inborn qualities of future generations of man either physically or mentally.

We live in an age of social control, and here—in eugenics—lies our most glorious opportunity of controlling the quality of our children and our children's children.

The thousands of persons who have submitted to the sterilisation process may be grouped for convenience of discussion into five classes, having been sterilised

(1) as a means of birth-control;
(2) as a therapeutic measure;
(3) privately, either as a eugenic measure or for the protection of themselves and their families;
(4) punitively, as criminals, and
(5) under the protection of the law, at the request of parents for social and eugenic reasons, or as a eugenic measure by the State.

(1) *As a means of birth-control.* No figures are available for the sterilisations performed as a means of birth-control, since, when the operation is resorted to by either husband or wife for this reason, it is done privately by a surgeon. But my own inquiries have led me to believe that it is done thousands of times annually in this country.* One California doctor, for instance, states that he has sterilised 150 married men for this purpose during his years of private practice. For certain reasons I am personally opposed to the adoption of sterilisation for birth-control, believing that in the great majority

* The United States of America.

of cases the more usual contraceptive methods are preferable.*

Leaving aside for the moment all cases in which the prevention of conception is desired because the wife ought never to have had children—cases which will be discussed under our second group—it may be said that the commonest reason given by married persons in the first group runs something like this: "We've had enough children and we don't want any more." Among my own acquaintances I can count half a dozen men, all of a high type, who have had the operation performed when they felt that their families were as large as they wanted or could take care of. One of these has six fine children. He and his wife are both young, but they know that their days of wanting babies are over, and both are perfectly satisfied now that the husband has been sterilised. Indeed I should have to go far to find a happier couple. None the less, I believe that sterilisation is not necessarily called for in such conditions, and still less when the man and his wife are well on toward middle age at the time of considering the step. Contraceptive measures would serve as well.† Under our current social customs marriage is likely to be deferred until the late twenties, with the result that by the time a man and his wife have had a number of children, conveniently spaced, they are both approaching forty; which means that the woman has only a short time to wait for the menopause, and during those years the

* When the individual already has a large family, sterilisation may be useful as a permanent method of birth control, since no contraceptive method at present known is 100 per cent certain, and in some individuals the use of the ordinary contraceptive methods produces psychological impotence or frigidity.—N. H.

† But no contraceptive method at present known is 100 per cent certain.—N. H.

same contraceptive practice that has served to space out the births will do just as well to prevent further conceptions. The only reason for substituting sterilisation is apparently that it saves trouble.*

Sterilisation is, we must bear in mind, a pretty final thing in the present state of our knowledge. I have said earlier that though some authorities believe that it can be undone, and fertility restored, others doubt this. I myself have never heard of such a correction's being even attempted.† The person, therefore, who considers being sterilised to prevent further children must consider it long and carefully—must indeed, I should say, be able to foresee his future and his wife's! For if ever the time should come when they felt that, after all, they would like to have another child they cannot be sure (so far as we know at present) that the sterilisation can be undone; they may wish that they had resorted to contraception instead. I have in mind an example of this. A young man and his wife, in business together, decided that they did not want a home and children; so the woman (against her husband's wishes) went to a hospital and was sterilised. Five years later the husband found that he wanted children, and he urged his wife to undergo a re-operation to restore her fertility. But she argued that this would mean a risk, that up to this time their life had been pleasant and fairly free from risks, and she could not make up her mind to agree. Then another woman came on the scene, who was willing to give

* There are quite a number of people who find that the use of contraceptive methods during sexual intercourse causes psychological inhibitions, which result in complete or incomplete impotence or frigidity.—N. H.

† See footnote on p. 18.

the man a home with children. The result was a divorce, the division of the business, and—lonely perplexity for the first wife.

If they had adopted contraception rather than sterilisation, their problem might have been susceptible of a happier solution.

The procedure is liable to abuse, too, when resorted to for birth-control purposes. I have in mind the case of a man whose life had always been filled with adversity. There was no doubt that he had been used very badly, hounded continually by ill fortune. When he married (so he has told me) he and his wife decided not to have children. "I wouldn't want to bring a child into the world to risk going through what I have gone through," he said. "I feel that it is a kindness to the unborn to keep them unborn." Well, most of us would probably not agree with him, but I emphasise the fact that he is, in all respects save this, a fine type of man and citizen, and I must admit that he and his wife are utterly happy. Yet here again I believe that the sterilisation performed on that man was wrong.

Nor is it only the husband and wife who in my observation had sometimes put themselves in the wrong in this matter; the doctors, too, may sometimes exceed their duties. I know of one young woman who was told by the surgeon after she came out from an appendectomy, "Now, my dear, there is one burden that you have off your mind forever. While I was taking out your appendix I tied off your tubes, and you'll never have to worry for fear you'll have babies. Isn't that

nice?"* Comment is unnecessary; though exclamation marks are almost irresistible.

If however, there are good reasons for sterilisation in order to prevent further births, the operation should be performed on the less healthy of the pair in most cases. A physician's advice should be sought, naturally, since the decision will depend on the various circumstances surrounding each case.

(2) *As a therapeutic measure.* The cases in this group are, strictly speaking, medical rather than social, but they are included because of the service that medicine has rendered to society in preventing the transmission of biological defects. Sexual perverts and the emotionally unstable are conspicuous among the subjects for sterilisation with this aim.† Such cases will be discussed more fully under (3) and (5). Here I may mention first the case of the woman who cannot bear her children

* In Great Britain any doctor who sterilised a patient without that patient's consent would render himself liable to an action for damages, and the verdict would almost certainly be against him unless he could prove that the operation was necessary in the interests of the patient's health. No sensible doctor would perform a sterilising operation without first getting the written consent of the patient, and, if the patient is married, it is usually desirable to get the consent of the patient's husband or wife as well.—N. H.

† We must be very careful in considering the question of the sterilisation of sexual perverts. The conception of sexual perversion varies greatly in different countries at the same cultural level. Thus *cunnilinctus* and *fellatio* (kissing and sucking the genitals) is regarded as a normal part of sexual foreplay leading up to sexual intercourse in France and some other countries. In certain other countries they are regarded as definite sexual perversions. But quite apart from the difference of definition, we must be quite sure *why* we want to sterilise perverts. If we believe that their sexual perversion is an evidence of psychological abnormality which makes them unfit to produce desirable children, we should be justified in sterilising them. But we must remember that sterilisation by vasectomy will not rid them of their desire, or capability, to indulge in the sexual habits to which they are accustomed. Even castration will be unsuccessful in a great many cases, for while it sometimes (though by no means always) is followed by incapacity to get a proper erection, it may have no effect at all on exhibitionists, masochists, sadists, persons who seduce young children, and so on. There are quite a number of cases on record where castration has been carried out with the hope of curing sexual perversion, and has resulted in complete failure.—N. H.

normally because her pelvis is too small and who therefore has to have a Cæsarean operation. It is sometimes represented that sterilisation is indicated in such cases because the woman may transmit this same difficulty to her girl babies. This I cannot accept, never in my own observation having known of a Cæsarean girl child who, when grown up, had any harder time in parturition than if she had been born naturally; nor is there any evidence to be found that such a biological defect is transmissible. The real reason, I believe, for urging sterilisation in this case is the unwillingness of the parents to have any more children, and I must say that in the cases I have encountered the woman has seemed to be perfectly content to be rendered sterile. Many a woman faced by the choice of having Cæsarean babies or none has found a way out through adopting children.

Other conditions in which sterilisation is indicated for therapeutic reasons are heart disease, tuberculosis, kidney trouble, and other ailments not necessarily inherited. Any of these, when coupled with pregnancy, may bring breakdown or even death to the mother if the disease is severe, or if the pregnancy is not terminated. Plenty of women with such diseases have had one abortion after another, and—if for no other reason than to relieve them of worry—these women should be sterilised, since especially in the case of patients afflicted with tuberculosis the worry often aggravates the disease.*

* The author leaves out of account the very important group of psychological indications for sterilisation. If a woman suffers from a mental disturbance which is classified as insanity of pregnancy—any type of insanity which is either due to pregnancy or aggravated by pregnancy—or puerperal insanity, or if a medical psychologist finds an imminent danger of insanity or suicide if the pregnancy is allowed to continue, the pregnancy may be interrupted legally on

(3) *Privately, as a eugenic measure for protection.* Numerous persons have been sterilised by the family physician or surgeon at their own instance or that of the family. These are usually the feeble-minded or insane, the kinds of abnormal persons whose sexual impulses, as is well known, are likely to be strong and unchecked and who are therefore a potential menace to society. In these cases it is useless to ask whether the patients are satisfied, to seek to learn how they feel about having been sterilised; they are commonly of so low a mental grade that they are incapable of constructive thinking. But we do know how their parents and relatives regard the procedure. To them it means infinite relief from anxiety, the assurance that the patient will not now bring grief on them through sexual crimes* and perhaps illegitimate children, and finally the possibility that they can keep him at home instead of sending him to an institution.

No one knows how many feeble-minded and insane persons are kept in their own homes, or how many of these have been sterilised. Of the total number, probably the majority live in country areas. Indeed, there are many families on run-down farms all over the land who are one and all feeble-minded and who go on reproducing their kind generation after generation, supported by the community through jobs requiring little or no intelligence. Except for its reproductive feature, such

these grounds. If these indications are regarded as sufficient for interruption of pregnancy, they should certainly be taken into consideration as possible justifications for sterilisation.—N. H.

† It must again be emphasised that mere sterilisation is no preventive of sexual crime, though it will prevent the production of illegitimate children.—N. H.

a situation is often not so bad as to call for the segregation of such persons in an institution. If a feeble-minded or insane person *can* be kept at home, and is sterilised so as to avert the most serious kinds of trouble, there is no reason why he should be put away in an institution. He is doubtless happier at home, and in certain cases his family is better satisfied to have him at home. But certain strict conditions are prerequisite: the family must be able to take care of him properly, and must be reconciled to the need of making the family life revolve around its unfortunate member. A wealthy family, with a large house and plenty of servants, which is able to regulate its life to the chief end of seeing that no harm comes to outsiders through the presence of the patient, does well to keep him at home. But any less fortunate family conditions—as in a poor rural home—are likely to lead to trouble in the neighbourhood.

What I have just said applies rather to adult patients than to children, for my observation suggests that the feeble-minded child is often much better off in a well-run institution among others of his kind. The staff of such an institution are trained to handle emotional upsets, which constitute the dangerous element in some cases. Moreover, the family of an adult patient will usually agree to his sterilisation in order to protect themselves and others, whereas the permission is hard to get in the case of a child; which is one more reason for placing the feeble-minded child (especially if he is also emotionally deranged) in an institution.

When sterilisation is performed on a feeble-minded child, he usually does not take in what has occurred

and is likely to be as happy afterwards as before. If there is objection, it is on the parents' part—they so often simply refuse to give up hope that their child may "get well some time." But my impression, in the cases where the operation has been permitted by the family, has been that they were eventually very much relieved by it; a terrible responsibility has been lifted from their shoulders.

In cases where sex perversion can be proved to be inherited, sterilisation is permissive in certain States.* That it runs in families there can be no doubt, but this does not apply to all forms of it. Not a little sex perversion is developed by our over-civilisation, as well as by early association with the wrong kind of children. The cure often resorted to, where perverts become offensive or dangerous, is castration, this being done not, of course, in the name of eugenics but rather as a therapeutic measure, and it is generally effective.†

(4) *Punitively, as criminals.* Sterilisation in the case of criminals should never be regarded as a form of punishment, but always rather as a eugenic measure—that is, for racial improvement. Some of the first laws enacted authorised the performance of the operation as a punitive measure, and we may be grateful that in every case our Courts decided against it as "cruel and unusual punishment," and it no longer has any place in our penal system. There were, in any case, very few sterilisations

* I do not know how sex perversion can be proved to be inherited.—N. H.

† Castration is not proper treatment for sexual perverts even when they are offensive or dangerous. Much better results can be brought about by psychological treatment. In some cases segregation is absolutely necessary whether they are castrated or not, and if they are to be segregated castration is superfluous.—N. H.

performed on that ground under these early laws.

Before the passage of any law in Indiana a fairly large number of sterilisations were performed with the consent of the criminals themselves—what is called voluntary sterilisation. The operation in these instances was sanctioned by the State and prison authorities, and the usual procedure ran something as follows:

A criminal would be approached by the prison doctor or the warden. He would be asked whether he had any children. If so, how was he able to support them? Was the State taking care of them? Did he add another to his family every time he was liberated? Did his wife like that? Did he like it? Then how would he like it if a simple operation were to be performed on him that wouldn't make the least difference in his sex life, but would make it impossible for him to have more children? *

Every man was sceptical—naturally. "Has anybody

* It may be interesting here to mention voluntary sterilisation in England. Unnecessary castration, that is, castration carried out for any other purpose than the protection of the patient's health, is regarded as a form of *mayhem* or maiming, and is a criminal offence, even if carried out with the consent of the patient. But there is no law against sterilisation by vasectomy in the male, or by operations on the Fallopian tubes in the female, providing that these operations are carried out with the consent of the patient. Some authorities are of opinion that if a test case were to come up in the courts, it might be decided that vasectomy, even with the patient's consent, is illegal, except when performed in the interests of the patient's health. Equally important authorities do not hold this view. Until the question is decided sterilisation continues to be carried out, mostly in patients who can afford to pay for a private doctor and a nursing home. It is not so often carried out in public hospitals, because the hospital authorities are afraid of losing the support of people who do not approve of sterilisation, just as hospital authorities are afraid of giving birth control advice because they fear the loss of support from people who disapprove of birth control. Of course no reputable surgeon would sterilise a patient frivolously or without some good reason, whether the reason be to preserve the patient's physical or psychological health, or a eugenic or social reason.—N. H.

else ever had it done?" "Yes—Mike, down in the other corridor." Mike would be summoned. The two would talk it over, Mike proving enthusiastic and persuading Sam in no time. If you or I had had ourselves sterilised, we might be ardent advocates of sterilisation. So Sam says he'll think it over, and eventually he decides that it will be a good thing.

On this basis a great many operations were performed in Indiana institutions, and the men were eminently pleased. Indeed, the voluntary procedure might still be carried on, had not a law been passed authorising sterilisation in Indiana. This law, however, instead of helping along the movement, threw so many legal protections about the patient that the surgeons grew wary and the voluntary practice was discontinued. (It has, however, gone on in other kinds of institutions in Indiana—charitable, for instance.) *

In this group of cases, then, we can say that the operation has been effective as regards the attitude of the patients. I myself have talked with men who have been sterilised and in every case they expressed complete satisfaction.

A number of States permit sterilisation of habitual criminals. Germany, too, has included this provision in her sterilisation plans. Usually it is done not as a means of punishment but as a eugenic or social measure.

* See footnote on p. 1 about the danger of legislation for *compulsory* sterilisation. Legislation about sterilisation is accompanied by another danger, i.e., if it is legally prescribed under certain circumstances, this may be held by some authorities to imply that sterilisation is not legal under any other circumstances; and it is certainly necessary in the framing of any laws about sterilisation that everything should be explicit, and not left for varying interpretations as to what is implicit.—N. H.

If a recidivist offender must spend most of his time in a gaol, then it is hardly fair to society that during every period of liberty he should cause another child to be born to his wife, who very likely does not want another, especially since he cannot support the ones they already have. A great deal is to be said in defence of the sterilisation of such persons, even when it is not strictly a eugenic measure.*

(5) *Under the protection of the law, for social and eugenic reasons, at the instance of the parents or the State.* In this group we may include all persons sterilised by the State, whether the initiative is taken by the patient's family or by public officials. These are all low-grade persons, nearly always too stupid or too insane to apply voluntarily for the operation. Those among the low-grade class who are so imbecile or so insane that they will always remain incarcerated do not enter our present consideration, since in their case there is no need for sterilisation. It is the border-line cases—those who can be given partial or entire freedom at times or even permanently—that fall into this class.

In California it is the custom in nearly all cases to obtain the written consent† of the relatives for the sake

* If sterilisation is desirable for habitual criminals, it is surely even more desirable for persons who suffer from recurring attacks of insanity. When I was medical officer at a lunatic asylum in Australia, I had to deal with a woman who had suffered from more than a dozen attacks of puerperal insanity following childbirth. Each time she was confined she became insane, and was sent to the lunatic asylum. After some months she would recover sufficiently to be sent home as "cured," each time she became pregnant again, and each confinement was followed by another attack of puerperal insanity.—N. H.

† In England the consent of the patient is necessary, and the patient must be legally capable of giving the consent. A patient who is insane or mentally deficient to a sufficient degree to be certifiable is incapable of giving legal consent. This means that the persons most in need of sterilisation cannot at present legally be sterilised.—N. H.

of harmony and the avoidance of litigation. Institutional superintendents report that relatives often urge the operation. As most people know, the type of insanity called manic-depressive affects its victim periodically; he will get over one attack and be released, but sooner or later he is taken with another and must return to an institution. It is such cases in particular that have benefited by sterilisation. Sometimes, during the sane period, there will seem to be every prospect that sanity will continue permanently; the husband or the wife returns home apparently for good, a baby is born, and then—the victim of the disease falls once more into depression, to be returned to the hospital,* the other parent having then to care for the child or children. Such couples have welcomed sterilisation, pleading with the physicians in charge to have the operation performed for the good of the patient and his or her family. Usually both husband and wife sign the order for it. When it is done, everybody concerned looks on it as a blessing. (See Chapter V for a discussion of the inheritability of insanity.)

In the case of border-line children, families are often happy to have the operation performed, either for the sake of the child or in order to prevent distressing consequences as the child grows up. More will be said in this

* In some cases insane or mentally deficient patients recover sufficiently to be allowed to go home, but should not be allowed to procreate any further children, either because another pregnancy may bring about another attack of insanity, or because the stock is obviously bad, or because, while the patient is not bad enough to be kept segregated in the asylum, yet he or she is not fit to have charge of young children. In such a case it may be wiser to sterilise the other partner, who is legally capable of giving the consent for voluntary sterilisation. If the patient is a woman, sterilisation of the husband has the added advantage that the operation is much simpler and costs less time and money.—N. H.

book about the problem of the border-line child, a problem whose gravity is appreciated by too few persons considering that this group constitutes the danger-spot of society.

Any one who has ever had experience in dealing with feeble-minded persons knows that it is not hard to persuade them to do something that may be actually harmful to them. It is for this reason that they fall victims to foul play so readily, are so often roped into gangs engaged in mischief, and thus come to the attention of the authorities. And for this same reason it is very easy to persuade them to undergo the sterilisation operation—they will assent to almost anything and sign any papers presented to them. Special care is thus called for if they are not to be exploited; they should have all the protection that a Court can throw about them. And, as a matter of fact, under the sterilisation laws now in use they do have this ample protection.

Such people can be made to tell how much they think they have benefited by the operation; while, in the hands of others, they can, through suggestibility, be made to say they have been badly treated.

Lest any one put himself in the position of a person to be sterilised and conjure up imaginary grievances, let me say that such a person knows very little about the feelings of one needing sterilisation. The fact is that the greater part of the operations performed to date have been done with the consent of the patients, in the case of those with sufficient mentality to understand what it was all about; and in most other cases the the patients have been sterilised with the consent of

relatives. If you were insane, I am very sure that you would never wish to transmit such a condition to any child of your own. If you loved your children, surely you would want to spare them the suffering that you have had to endure. If you were blind, congenitally deaf, epileptic, or insane, would you conceivably want to have children badly enough to run the risk of passing on these defects to them? If you would, you are not like the persons with these troubles whom I have known.

Let me cite an instance that I myself encountered not long ago. In this family the mother had Huntington's chorea—a disease which is inherited, if one parent has it, by half the children of the marriage. This pair had two children, one of whom was showing symptoms. I asked them directly why they had not had other children besides these two. The mother was plainly shocked that I should even suggest such a possibility. It was the deepest sorrow of her life that she had passed her disease on to the child. And I learned one further fact, pertinent to our subject: the husband and wife had for some time been living in virtual celibacy, for fear of begetting more children, and it was threatening their health and happiness. She expressed frankly her strong regret that she had not been sterilised early in life, as soon as the chorea appeared, and assured me that if she had known at the time of her marriage that her disease was inheritable and that sterilisation was feasible, she would have had the operation performed then. By the time I knew her it was a lost hope, for she was past her menopause; but she was planning to have her son sterilised, with her husband in agreement.

CHAPTER IV

THE EFFECT OF STERILISATION ON SEX LIFE AND GENERAL HAPPINESS

In Chapter III a point was raised that is of the utmost importance in any discussion of sterilisation: its effects on normal sexual activity and on the general sense of well-being in the person sterilised. If there is any evidence that he or she complains of a let-down in either the desire for intercourse or the enjoyment of it, if the operation has had such systemic effects that the psychic, emotional, and æsthetic irradiations of the sex life have been reduced or lost altogether, then a grave challenge would be offered. But no such evidence has appeared. The reports from persons intelligent enough to testify on the point are with few exceptions unanimous in the other direction; one group, indeed, finding a new and positive heightening of these elements.*

It is hard for many people to believe this. Some—particularly those trained in certain historic religious faiths—find it impossible if not indeed wrong to dissociate the sexual act from the conscious intention to produce offspring. Still others, and there are entirely too many of these, have so little understanding of the

* The good effects noticeable after sterilisation may be due partly to the Steinach phenomenon in males, but in many cases in both sexes the removal of fear of an unwanted pregnancy is, at least, partly responsible for the benefit.—N. H.

physiology of reproduction that they jump to the conclusion that sterilisation implies the complete stoppage of sexual activity. Physicians encounter this attitude constantly in their practice. When they tell us that many a pregnant woman thinks that her child is to be born through the navel, how can we expect her to know the intricate mechanism and the complex activity of the sexual organs? It is probably only natural that the majority of people who hear or read about sterilisation should have the idea that it involves a definite alteration, physical or psychical, for the worse.

We have seen exactly what is involved physically in the operation. No organ is removed in either salpingectomy or vasectomy; in each case a connecting tube only is severed.* The nervous system is not meddled with to any appreciable extent. Knowing this, we should not expect much psychological change if any. But to make sure, we must ask the men and women who for one reason or another have been sterilised.

What is perhaps our fullest and clearest source of statistical information on the subject is two of the studies made by Gosney and Popenoe in California.† The general conclusion to be drawn from its pages is that, so far as these men could find out, there was practically no dissatisfaction felt by sterilised patients. Both voluntary and compulsory sterilisations were represented. Of the former class, the study states emphatically that they were not only satisfied but even grateful;

* See footnote on p. 11. In transposition of the ovarian ends of the Fallopian tubes the tube is not severed at all.—N. H.

† No. 17—*Effect of Salpingectomy on the Sexual Life*; No. 18—*Effect of Vasectomy on the Sexual Life*. For complete list see Appendix.

of the compulsory cases (173 in number) one-seventh were regretful, the remainder either well pleased or not dissatisfied. And it may be noted that these compulsory cases were all psychiatric cases, in which one might naturally expect an augmentation of mental and emotional disturbance.

For a certain reason it is desirable, in examining the replies made to the authors of these papers, to beware of giving equal weight to those from older persons and to those from younger: the testimony is largely in the form of questionnaires, which preclude following up the answers with oral questions that would penetrate further into the underlying conditions. Thus a sterilised person of middle age who answers the questions printed might report that his or her sexual vigour has diminished following the operation, when the truth would be that it was beginning to diminish anyhow, at that age; the testimony for or against such diminution in younger persons must be given far more weight because the effects noted are absolute rather than relative. Yet, although the California study reports such adverse testimony in the case of a number of older persons, it is more than offset by the far greater number (of all ages) who reported an increase in sexual satisfaction. Of 109 women studied, for instance, 78 noticed no change, 22 noticed an improvement, and only 9 reported a decrease. Of 65 men of high type who had been sterilised privately as a means of preventing procreation, practically all said either that the operation actually improved their physical satisfaction and psychical well-being, or else that it seemed to make no difference. Of 155

women privately sterilised, 56 reported improvement, 92 saw no change, and 7 claimed a decrease.

It is not hard to identify the reason for the preponderating evidence of satisfactory effects that we find in this and other studies: the release from worry, the mental relief consequent on the removal of fear lest a child may be conceived as the result of the act. For a considerable number of the persons testifying were men and women whose motive for sterilisation was their reluctance to bring into the world more children than they could take care of, or defective children carrying on some transmissible trait. What sterilisation does for such persons is to enable them to have intercourse more frequently and without fear of possible consequences. How markedly the *libido* (sexual desire) is heightened when this fear is removed is illustrated by the testimony of some husbands that their wives are always more passionate during pregnancy—a time when, physiologically speaking, they might be expected to lose desire.

Though, as has been said, most of those who answered were in favour of the operation, there were a few who expressed themselves as believing it to be good for other people but not for themselves. One of the most interesting recordings is that of the woman who, after being sterilised, objected violently; so the physicians considered her case and wrote to her to return to the institution so they could operate and restore her fertility. She did not return.

I should like to describe an experience that came within my own observation, to show the intimate connection between fear and the due enjoyment of inter-

course, as well as the occasional real justification for sterilising in the interests of birth-control. In this episode I pitted my own small knowledge against the much larger fund of a psychiatrist. He won, but I still think I was right. A man consulted me about his wife. There was insanity on both sides of her family, and she had been in an insane asylum for two years. Now that she was home again, cured, he wanted to know what to do to keep her sane and happy. The reason he had come to me was that a psychiatrist had told him that they ought to have a second child, "so as to keep her occupied." She was greatly opposed to the idea, and so was he. Her fear of pregnancy was growing to the proportions of a delusion of persecution. So I suggested, for the sake of her happiness as well as that of her husband and the nice youngster that they already had, that either he or she be sterilised, so that the two could enjoy the normal pleasures of marriage without the fear of pregnancy on her part—a fear that might possibly bring on a recurrence of her insanity.

Well, though the husband was convinced that I was right, they decided to consult the psychiatrist once more. After all, he was a professional man, who *ought* to know the right thing to do. And it was his reputation that won. He persuaded them to have the baby, not the sterilisation. The result of that birth was that the wife was again committed to the asylum, and from present indications will stay there for the rest of her life. Thus a home is broken up, a husband has lost his dearly loved wife, and their two children are motherless. Now, of course, it is not possible to dogmatise here, to predict that

the woman would have stayed sane if she had been sterilised. But what is certain is that if she had been, or if her husband had been, they would not have produced a child whose prospect of mental health and happiness is hardly promising.

And this was only one woman of the millions whose fear of pregnancy dominates their lives, only one of the many whom, for one reason or another, it would be a mercy to sterilise if the conditions are such that contraception is impracticable. In the case above, for instance, two such conditions were present: the woman was too desperately afraid to put her full trust in any contraceptive measure, and if the most reliable of these had proved a failure, and she had conceived, there would have been the same disastrous outcome as actually did occur.

To attain some degree of control over our own destinies, to reduce the hold that fear has over our lives, is a familiar psychological formula for happiness and efficiency. Contraception is proving of inestimable value in this respect to thousands of persons, and where contraception does not answer, the recommendations should be for sterilisation. I should like to repeat here what I have often said publicly, that sterilisation is the *kindest* operative procedure introduced since the discovery of anæsthesia three-quarters of a century ago. Except for anæsthetics, nothing else has the power of alleviating or preventing so much human misery.

CHAPTER V

THE RELATION OF MENDELISM TO STERILISATION

In any study of sterilisation one continually meets the word "carrier." For instance, in *The Biological Basis of Human Nature** Professor H. S. Jennings speaks of the great hope for racial improvement that may come if only a way can be found by which carriers of racial degeneracy may be identified. What has this to do with the subject of sterilisation? A great deal. We should know at least a little about the mechanics of heredity if we are to discuss the subject intelligently.

For thousands of years it has been recognised that certain traits sometimes seem to skip a generation. These will appear in one generation, fail to appear in the next, and then reappear in the third. Plant and animal breeders were familiar with this fact for centuries, but it remained for an Augustinian monk of the little Moravian town of Brünn to discover the mathematical law governing the phenomenon. At the time—some three-quarters of a century ago—his valuable contribution to human knowledge was neither appreciated nor even widely known; and not until 1900 was it described, in a little journal published by the Natural History Society of Brünn, where it had lain since 1859. This published

* *The Biological Basis of Human Nature*, New York, 1930.

description constituted the virtual re-discovery of the Mendelian principles.

With that re-discovery, developments followed thick and fast in the science which we know to-day as genetics. Men began to apply Mendel's law to the inheritance of characteristics in animals and man. Charles B. Davenport studied human eye-colour, for instance, and found that it is inherited according to this law. Others studied colour inheritance in rodents, to such good purpose that by our own day, if you describe to a geneticist the colour inheritance of a mouse or a guinea-pig, he can tell you within quite narrow limits, sometimes exactly, what the colour of the offspring will be. During the same period, Thomas Hunt Morgan and his associates at Columbia University were studying the mechanism of inheritance in the fruit-fly. Cytologists (students of the cell) were observing the components of cells and describing their discoveries. As for inherited human characteristics, similarly productive work has been done and is still being done. Some of these are found to be inherited in such complicated ways that the only method by which they can be studied is the statistical.

If you look at a cell through the microscope you find within it a little globe called the nucleus, filled with what looks like granular material. If you were to observe a long series of these cells, you would sometimes note curious changes occurring in them. These mark the process of multiplication. As is well known, the body grows by an increase in the number of its cells. A cell that is to grow must divide, forming two cells. When it divides, all of its component parts divide also. This

should be remembered, since it has a bearing on heredity.

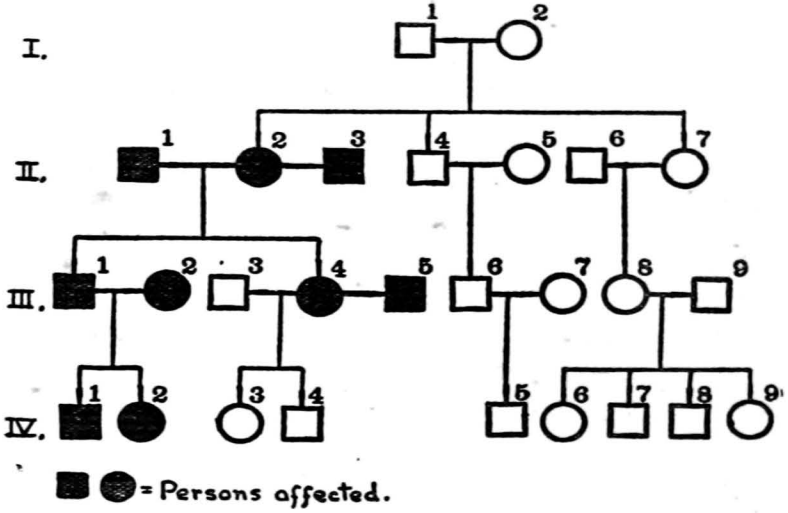
The granular material in the nucleus congregates into tiny lines called *chromosomes*. All of these chromosomes, except sperm cells (spermatozoa) and egg cells (ova), are found in pairs. In the case of spermatozoa and ova, each has half of the normal number of chromosomes, which are on their way to create new individuals and are thus reduced in order that this new individual may not receive twice as many chromosomes as its parents possessed. Every species has a definite number of chromosomes. We humans have twenty-four pairs; fruit-flies have only four pairs. We often hear biologists say that every individual receives half his characteristics from one parent and half from the other. This is because the chromosomes are the hereditary bridge from one generation to the next.

The chromosomes themselves are made up of smaller units called *genes*, and every characteristic of the body of an animal or a plant is produced by the interaction of these genes. Like the chromosomes, genes go in pairs. It is believed with good reason that the members of each pair are placed directly opposite each other in the chromosomes. In creating the characteristics in the body for which they are responsible, each two genes work as a team. When, in the process of reproduction, they come to be dissociated one from the other we know that in spite of their intimate relationship, neither one has influenced the other; and it is this stability of the gene that keeps the various inherited characteristics stable in their turn.

Genes themselves can and do divide, and thus there is always a lavish amount of germ-plasm, far more than is ever used. For instance, during copulation between a male and a female animal, sometimes as many as 10,000,000 sperm are transferred. The tassel of the corn plant produces so many of the pollen cells, which are as fine as the finest dust particles, that the air will sometimes be tinted yellow with it when a breeze lifts them off the tassel.

Though inherited traits or characteristics are dependent upon the interaction of all the genes, a difference in one of a pair of genes will make a very great difference in the end-product—that is, in the completely developed animal. In your own case, for example, if one of a pair differs from the other, this difference may be the direct and specific source of your ability to throw your thumb out of joint; or if one of another pair differs, it may mean that you have the ability to transmit blue eyes to some of your children although your own eyes are brown.

What geneticists are trying to do is to learn what all the inherited traits are. They can hope to do this with animals, but some people say that they cannot learn anything about human beings because they cannot breed human beings as they do animals. The answer is that they don't have to—human beings have very obligingly (if unconsciously) done the mating themselves, and have left records. Often there are three generations of the same family living, so that the geneticist may go forth with his measuring instruments and his pencil and paper and reach valid conclusions. And, as research has discovered, for the most part when a given trait is found



A typical pedigree showing the inheritance of a simple Mendelian dominant trait (one type of deafness). Many human characteristics are similarly inherited. Some are good for the individuals possessing them, some bad, and some neutral in their effects. (Courtesy *Eugenical News*.)

to behave in inheritance according to a certain pattern in one family, it behaves so in all families. That is because we all have parts of the same original germ-plasm.

How, then, do we inherit? Well, we must bear in mind that there is one pair of genes for every characteristic, and that the child inherits one from each parent. The father has, let us say, a pair of genes for blue eyes, and the mother has a pair of the kind of genes that determine brown eyes. The child receives one gene from his father's pair and one from his mother's pair, to reach his full quota of two. Then, we might ask, what colour will his eyes be? Obviously, in this trait he will be a hybrid. But his eyes prove to be brown. Why, you ask? It is "just because," and that's the best answer that can be given. Experimental evidence shows that when a gene for brown eyes is mated with a gene for blue eyes, the result will be brown eyes. Mendel said that one character, the *dominant*, dominates the other, the *recessive*. The recessive (blue-eye character) was there, in the case above, but you couldn't tell this by looking at the child because the dominant had been the brown-eye character.

So, in a family which is homogeneous for brown, nothing but brown eyes can result; and in an all blue-eyed family, only blue can be transmitted. But in a hybrid family, as a geneticist would call it, there are chances for producing both blue and brown. Thus two brown-eyed persons—both of whom, however, have recessive blue-eye genes—can have a blue-eyed child; similarly, two persons who cannot throw their thumbs

out of joint will sometimes produce a child who can. But it is readily seen that when two recessives marry they cannot have children bearing the dominant trait. For the dominant trait is just dominant; if either parent possessed it, it would be apparent. When the children of two recessives show the recessive trait only, it is because no dominant blots it out.

What Mendel did principally was to discover that there is a mathematical law governing this matter of inheritance. You can discover it for yourself if you will take two teacups and put some white beans in one and some black beans in the other, both representing genes. Now it is obvious that from the black cup you can take only black heredity; from the white, only white heredity. In each case you have drawn out two "pures." If you take one from each, you will have a recessive and a dominant coupled together, and such a combination would produce a dominant-appearing individual. Now make up for yourself some new generations that will represent the way that selection works out in Nature. Mix in another cup one hundred black beans and one hundred white ones; this is a "marriage" that is to produce some pures and some hybrids. Take a pencil and paper and rule three columns. At the top of the first column make two solid black dots; at the top of the second, two open white dots; and at the top of the third, one black dot and one white one. These three columns represent the three possible combinations of beans which you are going to draw from the cup. Now you are ready to begin the process of "selection."

Close your eyes and draw two beans from the cup at

random. They will both be black (pure), or both be white (pure), or there will be one black and one white (hybrid). Whichever pair it is, make a check in the corresponding column on your paper. Keep on drawing the beans out, always with your eyes shut and at random, for as far as we know at present that is the way heredity works. In the end, when all the beans are out of the cup, you will find that you have recorded very close to 25 pairs of blacks, 25 pairs of whites, and 50 pairs of hybrids—one black and one white. This is the law that Mendel established through growing garden peas. He mated peas that produced tall vines with peas that produced short or dwarf vines; and he found that the first-generation hybrids were all tall, but that when he mated these hybrids together he got just what you got when you picked those beans out of the cup.

This is practically all there is to the principle discovered by Mendel. And when we come to ask how many human characteristics there are that are inherited thus simply and that we know to-day, the answer is about two hundred. If you are interested in learning what these are, turn to Appendix B, Table I, where you will find a partial list, dominance and recessiveness being shown.

Now you may say that, if this is all there is to it, the problem of eradicating degeneracy ought to be easy: simply find the persons who carry the genes of mental defectiveness and sterilise them. The trouble is that there is a good deal more to it than that. Many of the great, worth-while characteristics of us human beings are not inherited in the simple manner described above.

Certain human *defects* are, and these can easily be traced back through generations. But what about such things as mental ability? Is that a simple matter? What about temperament, that very complex trait so important for human happiness? You see, these things that we find in different degrees cannot be inherited as simple Mendelian characters are. But this does not mean that we are helpless in our efforts to control them.

Who, for example, would say that, if all the horses in the world were interbred until all types were merged in a kind of universal mongrelisation, we couldn't quite quickly re-establish the race horses and the draught horses, and the ponies, and the polo ponies, and the saddle horses? By selective breeding we could do it quite easily in fewer years than we anticipated. Yet racing ability, for instance, is inherited in a very complicated manner, so complicated that the only way we can study it is by statistical methods.

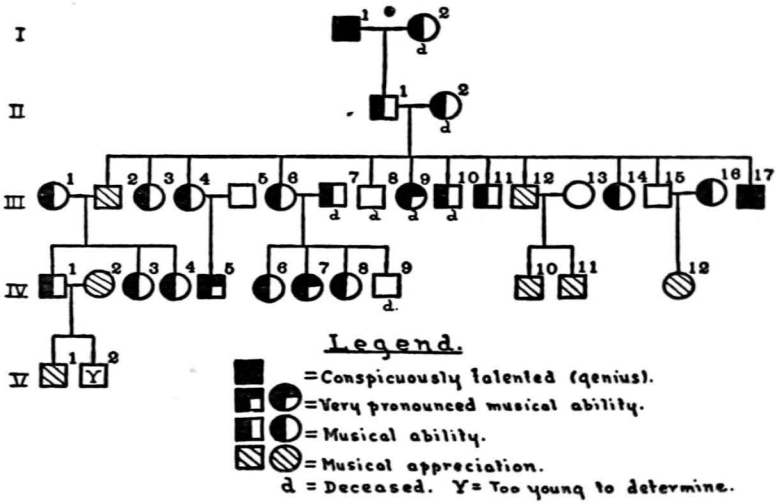
Now certain forms of absolute feeble-mindedness are inherited as simple recessives. Certain others—because they are not absolute non-intelligence, but rather are varying and relative grades of mere sub-intelligence—are inherited complexly. And that is why it seems so certain that we can recognise the carriers of feeble-mindedness; usually they are only a little higher mentally than persons who are actually of lower grades.

The ability to cope with life, to live happily, is not a simple Mendelian characteristic. Sometimes one simple Mendelian character will spoil the chances of an otherwise excellent promise of great capacity. Take Huntington's chorea, for example, also known as shaking

palsy. Without it, some people would have risen to heights now impossible of achievement because they were handicapped by this dominant defect.

There are other characteristics whose mode of transmission is not very complicated, as for example colour inheritance in human beings. When a black woman has a child by a white man, the result is a mulatto. Mulattoes are of quite uniform colour. When two mulattoes marry and produce children, the children may range through shades of colour, from white to black. There are four colours in the skin of each of us: white, yellow, red, and black. If we eliminate the red and the yellow and consider the white and the black we should find that there are two pairs of genetic determiners working on the end-trait colour, and this accounts for the varying degrees of colour in children of mulattoes. In other words, there are a greater number of combinations possible where four genes are concerned than where two are concerned.

In considering the many characteristics which go to make up the individual, we must never forget that the characteristics that have gone into a combination sometimes come out a generation or two later with new partners. This is another way of saying that one gene or one chromosome is not affected by the partner it had while residing in the body of its temporary custodian. We have all seen men who are partly white but who have the kinky hair of the Negro. Occasionally one sees a fairly black man with light-blue or grey eyes, denoting that he was probably the son of mulattoes each of whom had a blue-eyed parent. This is so often the case to-day



A typical pedigree showing how a worthwhile human characteristic (musical ability) runs in a family. This is not dominant nor recessive, but a student finds differing grades of it in a pedigree. Musically inclined persons tend to produce musically inclined children. They do not always do so, but, on the other hand, often produce children more musical than they themselves. (Courtesy *Eugenical News*.)

that one cannot tell from a man's colour just how much he has inherited from his white ancestors, because skin colour alone is no criterion. He may have inherited a majority of the characters of the white grandparents, even to straight hair, aquiline features, and so forth, and still have black skin. In fact, it is my belief that most of the dark Negroes who are really accomplishing things to-day are of this type.* Unfortunately, many of them do not themselves know just what their heredity has been, and this fact has handicapped investigators, who have had to depend for their studies on two consecutive generations only.

In accounting for the complicated phases of heredity, we need but to remember that the more pairs of genes or determiners involved in the inheritance of any trait that interests us, the harder it is to study that trait except by statistical methods. But just as the skin colour in the human shows variation, so—but to an infinitely greater degree—does the inheritance of some other traits. This explains why geniuses so seldom produce children who are geniuses. The parents themselves represent the upper level of the potentialities of their germ-plasm, and the subsequent tendency is therefore downward.† But selection continuously maintained tends to keep the type varying around any given level.

Knowing these broad principles you will better appreciate what is meant when we say that some traits

* The author offers no evidence to support this belief, and the English reader will probably suspect, as I do, that the belief is based, not on rational grounds, but on the colour prejudice which is evinced by so many white Americans.—N. H.

† If the genius marries a superior, and not an inferior person, the subsequent tendency is not downward, but upward.—N. H.

definitely tend to "run in families." Their inheritance is sometimes too difficult to pin down to a single pair of determiners, but one family history after another has shown that certain families produce these traits generation after generation. A list of such inherited traits is given in Appendix B, Table II.

Then there is still another kind of inheritance called sex-linked inheritance. It was sex linkage that enabled the early investigators of the genes to learn what position those lie in along the chromosomes and that thus made chromosome "maps" possible. When the Nobel Prize was awarded to Dr. Morgan in 1933 it was largely on the basis of this remarkable discovery. By selective breeding of fruit-flies he and his associates were able to map out the relative positions which different genes occupied on the chromosomes. A certain pair of chromosomes are the determiners of sex. The male has two sex chromosomes that do not match, but the female always has a pair that are mates, and one of the male's is like both of the female's. That one always comes from the female in inheritance. It is a fifty-fifty chance which one the embryo receives from the father. If it gets the odd one, the embryo will be a male, while if it gets the one like that which it received from its mother, it will be a female.

Along this odd chromosome lie genes for certain traits from the father; and along the other one lie other genes, coming of course from the mother. The male chromosome sometimes has no genes complementary to those in the female chromosome, and when this is so, there is nothing to dominate the genes from the mother.

Traits thus appear that are sex-linked. Geneticists sometimes say that these characteristics are recessive in females and dominant in males, which is partly true. They are passed on through the mother and do skip a generation. Thus, the ex-King of Spain has sons who are "bleeders." They are constantly in danger of their lives because their blood does not have the ability to clot within the normal time, and they bleed from any wound for many days. This trait came from the Queen's father; King Alfonso had nothing to do with passing it on.* Colour-blindness is another character that one inherits from his mother's father. Sex-linked traits are seldom possessed by women because the chances are so small that any one would receive a pair of determiners or genes for this one character. If the woman did, then all her male offspring would possess it, whereas under ordinary conditions only half would receive it on an average, because there would be only one chromosome bearing a gene which was the determiner for it. A list of some of the sex-linked traits of man is given in Appendix B, Table III.

Some of the traits listed in the Appendix are exceedingly dangerous, while some are beneficial or neutral in their effect on the individual. The essential fact to remember in reading through this list is that if a person inherits recessives, there is no chance of his or her transmitting dominants. And in many cases this holds for

* Since this book was written one of the Spanish princes has died as a result of being a bleeder. This has not prevented his sister from marrying (January 14th, 1935) in spite of the fact that she is likely to pass on the taint to her children. This disease, hæmophilia, is fairly widespread among European royal families. It was because the Czarewitch was hæmophilic, and the doctors could not cure him, that Rasputin acquired such power over the Czar and Czarina by claiming that he could heal the child.—N. H.

the more complex traits as well. For instance, research fails to discover a single normal child whose parents were feeble-minded and were in turn the children of feeble-minded parents. But there are cases on record in which a feeble-minded person has married an insane man and had normal children. That is because each child received genes for normality along with the genes for subnormality, and the normal ones were dominant. But such a child must indeed watch his step when he comes to marry, for the recessive genes for subnormality *may* mate with other recessives in the sperm, resulting in subnormal children.

In certain cases, two feeble-minded persons have produced children who would pass for normal; here, one parent has usually been found to have come by his or her feeble-mindedness through other means than heredity. For though the body may have been affected, the germ-plasm was not, and the dominant normality overcame the genes for degeneracy which were furnished by the other parent.

There are also cases in which a brother and a sister have produced a child somewhat brighter than either parent. There is such a child in a California institution for feeble-minded. It is not normal, but the inherent potentialities in the germ-plasm provided for a child slightly higher in the scale than its parents. I know, too, of a case at the other extreme, in which a brother and a sister have been married under assumed names for many years and have two extremely talented children, both of whom seem fully as intelligent as the parents. The evidence is good, therefore, that there were no traits

for degeneracy inherent in the parents' germ-plasm, or they would have stood a much greater chance of pairing up and thus creating degeneracy. This is the reason why marriage within a family is somewhat more dangerous than marriage with outsiders.* If the outsider, however, has the same traits as the family, then there is no more danger in marrying within the family than there is in marrying such an outsider. Some of the greatest families in the world have been the products of quite close family marriages. The Galton-Darwin-Wedgwood family is a case in point. Cleopatra was exceedingly inbred, if we may apply the same terminology to humans that we use for animals. Many persons think that cousin marriages are responsible for a great deal of feeble-mindedness and insanity, and that our institutions are filled with the results of such marriages; but this is not so. As I have said, there is no more danger in cousin marriage than there is in marriage with an outsider *provided* the outsider carries the same genetic traits. In short, inbreeding does not in itself produce weakness; what produces it is rather the latent or recessive genes for degeneracy, which two members of the same family are more likely to carry (and so to combine) than two persons are who are not members of the same family.

* It is important to remember, on the other hand, that if the family is of good stock marriage between close relations is likely to produce children who are even better. In-breeding does not *necessarily* give rise to defective offspring. Breeders of prize cattle deliberately inbreed to improve the strain.—N. H.

CHAPTER VI

IMPORTING TROUBLE

We have no way of knowing just how much feeble-mindedness and insanity there was in the United States in the early days, but we do know that at the very first there was practically none, because the environment was too harsh to allow a degenerate to live. Quick wit and ingenuity were required for survival. That early history constitutes an excellent lesson in what a natural life does for mankind. There is no place for the misfits in the upward scheme of evolution. Indeed, if we can learn anything from that lesson, it is that Nature certainly does not want weaklings. In every species, we find that the inferior individual is soon exterminated and the superior allowed to survive. So, in the early days of all nations, when men had to fight for existence, a biologically better lot of men and women could have been found than we find to-day, now that civilisation has done its best to save as many weaklings as possible. As we look back over the history of New England, for example, we find a fairly long period during which there were no alms-houses, town farms, or other such institutions; and also that after town farms were established they were occupied for the most part by a few old people whose

dependence was due less to subnormality than to misfortune.

An intensive study of the history of a typical New England town, in many aspects related to the subject of degeneracy, has been made by the writer and Dr. Arthur Estabrook. We investigated the earliest census figures, as well as church and town records, and uncovered some remarkable facts. The story is so typical of the early development of rural areas in New England that it will serve well as an example of the progress of degeneracy in our country.

The story begins with the petitions made by dwellers in the eastern part of the State for tracts of land in the western part, on which they might settle. The governor made many grants, and settlers emigrated from the neighbourhood of Boston through the woods and sparsely settled communities between, to the beautiful hill site of the present town, which we shall call Cellarholes. Here the soil was terribly poor, and rocks were everywhere; but these rugged men and women went to work and eked out an existence. The village grew rapidly until at one time it had a population of about 1500. During the stage coach and tavern period Cellarholes was a prosperous town boasting fifteen or twenty industries; and with prosperity there came, of course, an increased degree of social security.

Now to understand the whole story, we must go over to England and see what was happening there. The news that came from the young colony was presently so good, bearing promise of such certain security, that the British Government began to encourage emigration

and colonisation. But did that Government try to select the best of its families and urge them to emigrate to Massachusetts? No. Instead, it allowed those to go who wanted to, and every once in a while exported a shipload of prostitutes and misfits* of the same kind as were being sent to Georgia.

Some of these undesirables drifted to Cellarholes, and married; and their children intermarried with the families already there. Moreover, westward-moving emigrants were continually driving through the town, and the Cellarholes folk heard tales of the fertile prairies that these emigrants were bound for, and of the fertile Connecticut River valley only a few miles away, and of the gentle slopes of the Hudson River valley where there were no stones, and crops had the advantage of longer growing periods. Those who had what New Englanders still call gumption pricked up their ears. Those who hadn't were satisfied where they were.

In time the railroad came through this part of the State, though eight miles from Cellarholes, and since almost every foot of the way from railroad to town was uphill, the townspeople were handicapped in getting supplies to Cellarholes. Presently the young people, particularly those with intelligence and ambition, began to seek wider opportunities elsewhere, in places where life

* The "misfits" who were transported to America (in later years misfits were sent to Australia, Tasmania, and other colonies) were not necessarily inferior or degenerate types. On the contrary, many of them were highly vital persons, who would not conform to the often stupid laws which the rich had made for the poor, and who got into trouble, not because of their *inferiority* to the stupid herd, but because of their *superiority*. America was colonised largely by these people, and if our author is going to blame America's present-day defectives on these migrants, he should at the same time realise that many of America's leading citizens are descended from misfits too.—N. H.

offered more outlet for their energies. So they left Cellarholes. But what did they leave behind—a better or a poorer group than themselves? The answer comes all too readily. As you picture this selective process going on, generation after generation, it may occur to you to liken Cellarholes to a great milk-vat. Running off the top is a tube that continually siphons off the cream as it rises, and what is left is skim milk. Much of what is left in Cellarholes was and is skim milk. The exceptions are some fine people who have found their greater opportunities in staying and managing the town, and a few old people who have come back to their childhood home to spend their remaining years. But for the most part, the townspeople can be characterised in a remark made to a circuit judge who was unfamiliar with the place. He asked a native who had been called as a witness what they did in Cellarholes. She replied, "In summer we raise blueberries, and in winter we raise hell."

Should you go to the various public institutions of Massachusetts and look for the names of those who have come from Cellarholes, you would find complete quota fulfilment and more. If you were to go to the county seat and look through the files of the Humane Society, of the gaol, of the charity organisations, you would find that, considering its very small present population, Cellarholes has always had many more persons in constant trouble than has any other community of corresponding size.

Degeneracy has increased here, just as it has increased in many another community. Cellarholes constitutes

almost a country slum. Yet it is not altogether fair to characterise the town thus; for the countryside is beautiful indeed, and within the town itself one finds some families of newcomers who are outstandingly desirable in type—one Swedish family, for instance, who in true mental and physical worth probably rank among the top 2 per cent of our population.

If, on the whole, degeneracy has increased in this New England town to such an extent that a large proportion of its people now are below par, it is typical of what may be expected to happen when good pioneer stock is mixed with bad immigrant stock, to combine and recombine so that a few generations later the mixture is producing degenerates. I do not imply that most of our degeneracy can be traced back to England; I want merely to bring out the fact that innate characteristics producing degeneracy do not for the most part arise spontaneously.

Let us go a step further. Let us consider the nation pretty well established so far as security is concerned. Now, other nations face the problem of excess population, and America has come to be generally accepted as the place to send this excess, in lieu of colonies. Suppose that you were a public official in, say, Italy. And suppose you had some inkling of the fact that there are *people* and *people*, that some make good neighbours and some make troublesome ones. Then, suppose, further, that you realised that you live on a stony peninsula, that your land is not adequate to feed your increasing population. Might it not occur to you that it would be a fine plan to assist, through gentle propaganda, some of the surplus

to emigrate? This is what did occur to certain Italian officials, and they designated a Commissioner of Emigration who stayed on duty while our Commissioner of Immigration was asleep; at least, our official seemed powerless to do much to prevent the coming of those whom the Italian Commissioner wanted to send.

At first, only strong labouring men came over here from Italy, men who could earn money to send back to their wives; and they were urged to return every two years to cement family ties. No restriction was placed on the migration to America of the less valuable elements in Italy, and there is good reason for believing that the best elements were in various ways urged to stay at home. So Italy did a little selecting, and on the whole America would be better off (to put it mildly) if Italy had not selected in just the way she did.

An error into which some students have fallen in judging the racial quality of a people is to base their judgment on the representatives of that people here in America. Many contemporary judgments of the Italians offer excellent examples of this fact. If we were to judge the people of Italy by the Italians in the city of New Haven, we should say that there must be six times as much degeneracy in Italy as among the native-born stock of New Haven. This is far from true, as will be evident in our further discussion.

Like Italy, the other European nations have done considerable dumping of their less valuable population, with the very happy result—for them—that they have fewer problems of degeneracy than we have. Why wouldn't they? A few years ago I arranged a series of

illustrated lectures to be given here by the Norwegian biologist, Dr. Jon Alfred Mjöen, an honest man and one of the few Europeans I have ever heard on the subject who told the facts candidly. He had half a dozen pictures of the most disreputable-looking tramps imaginable, and while they were being put on the screen he said not a word. But after they had all been shown he shocked his audience by saying: "America has used Norway very badly, through the more rigid immigration laws which your Congress has passed. We cannot *now* send people like this to America any more; we shall have to arrange to take care of them ourselves!"

I could recount one tale after another of assisted emigration from European countries. Jurists, knowing full well the expense to their country of maintaining criminals, have often helped criminals get to America. Here is how this has been done repeatedly in England and Germany: A man is tried and convicted by the jury, but the wise judge says (in effect) to the prisoner, who has been allowed to post a small bail bond, "I shall pass sentence upon you two weeks from Friday, and it will probably mean that you will go to gaol for five years." Now what has resulted is simply that the man gathers some money from his friends and jumps his small bail; then, instead of going to prison he goes to America, the land of the free.

Though such practices are now happily of the past, they do explain where many of our traits of criminality have come from. The fact that Europe has dumped so much of her expensive and unwanted human débris on our shores certainly accounts for most of the seed

stock from which our lower types of degeneracy have sprung.*

The subject cannot be left without a further comment on "country slums." Most city people seem to think that human beings may not be thought of as "slum-dwellers" unless they are herded together. But, as we have seen, a slum is made by the people who live in it. This ties up with any estimate we try to make of the source of degeneracy. We who live in sections of the United States where the winters are cold are likely to think that we have more degeneracy than the South has; but this is far from being certain. Rather, it is our cold weather that drives more low-grade people to ask for help. One outstanding trait of the low-grade mind is its inability to look ahead. True, the low-grade city-dweller may sometimes prosper, for in the city, where everybody is saving his money and advice is plentiful, a stupid person may get help from such people as trustworthy bank employees who will advise him to save his money. The mere ability to save is therefore no longer any criterion of mental status. By living on a very low plane and taking his earnings to the bank, a low-grade person may accumulate respectable savings.

But this is not true in country areas. Here the low-grade person has little chance to earn much, and in general, because everybody else is trying hard to work his own land, the yokel works his too and thus gets enough to eat during the summer. In most cases he may, it is true, neglect to provide for the winter; but when winter comes, if he lives in a warm climate he

* See footnote p. 64.

needs no fire and in normal times can get a living. The public authorities do not see much of him and his youngsters, and so go on believing that they haven't any serious poverty problem. On the other hand, foresight is needed to get through the Northern winter. Then the country slum-dweller more often comes to the attention of the public authorities. With summer he is able again to go forth and scratch the ground, sow a few seeds, chop a little wood for the fire, and impregnate his wife. Everything is fine then, and nobody has much trouble with him until the next winter. Our more progressive States are now making provision for maintaining more of these unfortunates, but at best this is only a beginning, though many of the officials continually assure the public that everybody is cared for. In a Connecticut institution for feeble-minded children, for example, there are 1,000 beds—and unfilled applications for 1,000 more. Meanwhile the mothers of these feeble-minded children are still reproducing; last year they bore 110 more children. Not all of these children will live, of course, but enough of them will to assure the State of Connecticut of an increasing demand for beds just as long as this breeding from the bottom continues.

We have now seen enough, undoubtedly, to summarise. Degeneracy entered this country originally with undesirables either assisted out of their own countries or emigrating voluntarily. These had certain latent, and sometimes apparent, characteristics that were inheritable. The latent characteristics cropped out as latent characteristics will, or else, sometimes, passed in the latent state from generation to generation to emerge eventually

through the marriage of similar types. A small amount of our present degeneracy is perhaps to be accounted for in some other way—by racial intermarriage, by environmental differences between the Old country and the New, or by mutations—those cases of apparently spontaneous appearance of some new physical character. But of all such it may be said either that we know too little about them as yet to give them much weight, or that they are relatively small factors, or that they are rare. We need, in truth, no other explanation for by far the largest part of our degeneracy than unrestricted immigration and the inherited characteristics of the undesirables who have been admitted under that policy.*

* See footnote p. 64.

CHAPTER VII

DEGENERACY IN THE MAKING

If the latent and the apparent traits of degeneracy came to America through immigration and have been perpetuated here ever since, it seems to me that we ought to know something of the genetic reasons for the situation. Most of us are familiar with that great study of human degeneracy by R. L. Dugdale* which contrasted the so-called "Jukes" family with the historic Edwards family. Studies have also been made of other great tribes of degenerates like the Jukes, most of them living in country slums. Studies of certain high-grade families like the Edwards and the Darwins show that such families have produced practically none but excellent members. Why should there be such a difference between family strains?

Before we undertake to ascertain the answer we must consider one very important question, a question to which too little thought has been devoted. How many children are required if a family or a group of families is to be perpetuated? We must be able to answer this question before we can say whether a given class of people is increasing or decreasing.

Several methods have been proposed for determining

* *The Jukes*, New York, 1877.

the point. One of these methods was followed by Professor Ellsworth Huntington and the writer in preparing the book called *The Builders of America*,* and I should like to describe it here. First of all we settled on an arbitrary number of boys and girls at birth—100 of each—who would some day constitute a theoretical intermarrying group. Then we said: "Suppose that all of these children grow to maturity, suppose they all marry, and suppose they all have children; how many children would it require to replace the group in the third generation?" Offhand one would guess that if they had 200 children, no more would be necessary. But as a matter of fact, that assumption would be wrong.

In the first place, abundant figures indicate that there are 106 boys born for every 100 girls; so it would be necessary for our 200 to have 206 children to perpetuate themselves. But we know that these children will *not* all live to maturity, will *not* all marry, and will *not* all have children even if they do marry. So it behoves us to discover from mortality statistics just what proportion of them will live to be (say) 24, the age at which a mjaority of persons marry. We discovered that only 85 per cent will live to be that old, which brings our 206 up to 242.

Next we had to find out how many of those who did live to be 24 actually would marry. Eighty per cent is the figure that records show to be correct. This means, then, that the 242 has risen to 303, to get 100 married couples in the second generation.

Lastly, we had to discover what proportion of those

* Ellsworth Huntington and Leon F. Whitney, *The Builders of America*, New York, 1927.

who did marry would have children. In investigating large groups we found that 85 per cent would become parents. And that brought our original 200 up to 356. That is, 356 children would be required in the second generation in order to guarantee 100 married couples likely to have children. Reducing this to the individual couple, we determined that it requires 4 children per couple to perpetuate a family. The average for large groups, of course, is 3.56 children per couple. So we see that any group of people that is having larger families than $3\frac{1}{2}$ children is increasing; while those who are having smaller families are decreasing.

In passing, let us investigate the size of the families of the superior element in the population. This obviously has a decided bearing on our problem, for it is the superior elements that support the inferior as the generations advance, and if more and more of the inferior come to depend upon fewer and fewer of the superior—which is what we mean by a dysgenic birth-rate—plainly the outlook is grave.

Suppose we consider certain groups of statistics to find our answer. We know the birth-rates of (*a*) many of the great groups of college graduates, (*b*) the persons listed in "Who's Who in America," and (*c*) the men listed in *American Men of Science*; and, generally speaking, these are superior men and women.* Examining "Who's

* "Who's Who" is not to be taken as representing the most gifted in America. The book itself says, "Not the best, but the best known." When, however, we make studies of people we are necessarily limited in our available material to groups listed in such a form that they may be studied. Neither "Who's Who" nor *American Men of Science* represents the cream of our population; they are taken merely as furnishing a good cross-section of successful and intelligent Americans.

Who" we find that the average number of children for all the married men listed is 2.8, while for the married women the figure is 2.33 The married scientists listed in *American Men of Science* average 2.2 children.

Taking all the available figures on college graduates old enough to have completed their reproductive period, we find that they produce families averaging 1.75 children; the figure rising to slightly over 2 if we limit our reckoning to married ones. As for graduates of women's colleges, if we take the entire group (married and unmarried) as a basis of figuring, we find that it has produced only about 1.25 children per graduate. So many of the graduates are unmarried that if we assign the credit where it belongs (i.e., to the married ones), the figure becomes almost 2. The figure for coeducational institutions is somewhat better than the others, and very much better than that for the women's colleges.

All told, it is obvious that the average will come to less than 2.25 children per family for such people as we can scarcely afford to lose from our population; for this is a long way from the 3.5 required to perpetuate a family.

Another fact to consider is the increase in the total population. It has been reliably estimated that by 1950 or perhaps earlier the United States will have a stationary population: the death-rate and the birth-rate will be equal, so that there will be no further increase such as there has been in the past. Now 1950 is not far off—indeed it is as good as here now, from the viewpoint of population increase: the death-rate has almost caught up with the birth-rate, the relative difference being only 6.9 per thousand.

We now have some important facts at hand. The country is having practically as many deaths as births, but our best elements are not producing nearly enough children to maintain their part in the population. It becomes necessary now to learn something about the birth-rate of the people at the bottom of the social scale and to see whether this gives us anything to worry over, in its relation to a planned society and to the problem of sterilisation.

Feeble-mindedness in the race affects all of us, since we have to spend vast sums in taking care of the lower grades of our feeble-minded people, with the realisation that the thousands of them who are free in our population, and are reproducing, will necessitate our spending more and more. We can visit the institutions where some of them are segregated, and see for ourselves what they look like; decide whether they seem good social animals, the sort that will build up our civilisation, or whether they are the kind to tear it down; ask ourselves whether we should like to have our descendants marry such as these, or whether for their own good as well as for ours it would not be better if they were prevented from having children.

Certain students of feeble-mindedness have tried to convince the public that only a very small amount of it is of an hereditary nature. Still others have admitted that a good deal of it is, but they insist that there is very little that we can do about it. Three articles in *The Journal of Heredity** have been the basis of much of the discussion of this question. One of them was by Edward

* Vols. 8 (1917) and 18 (1927).

M. East, the second by R. A. Fisher, and the third by Leonard Darwin. All were based not on facts but on an assumption, all argued about a very large *if*. Using these three articles as a foundation for further discussion, Professor H. S. Jennings starts from the same assumption: that feeble-mindedness is determined by a single pair of genes; and he then proceeds to speculate on how long it will take the race to reduce its feeble-mindedness appreciably.* His arguments might be convincing *if* feeble-mindedness were the result of marriages between normal persons who produce feeble-minded children occasionally; but the assumption is not borne out by the facts. So much depends on our criterion for defining a "normal" person. Are we to call anybody normal merely because he has never been committed to an institution? This is what was evidently done by the persons whose studies form the basis of the assumption mentioned. When we look into these studies, this is what we find to be the criterion used to prove that feeble-mindedness is not hereditary—i.e., that it appears as often among children of normal stock as it does among those of feeble-minded parents; a research worker is sent to an institution, where he examines the cards of the inmates, cards describing the parents among other things. When a card shows that the inmate is feeble-minded but that neither his father nor his mother has been an inmate of such an institution, the parents are recorded by the research worker as normal—not "doubtful" even, but *normal*. I myself have seen a study carried out in this way, its evident criterion being

* *The Biological Basis of Human Nature*, New York, 1930.

merely whether or not the parents have ever been committed as feeble-minded; if they haven't, then they are "normal." *

Such undiscriminating ambiguity as this, which reduces the value of the findings considerably, is attributable to the lack of thoroughness with which the investigators were obliged to work. They were handicapped by being unable to go out into the towns and give mental tests to these children's parents, so they had to judge by rule-of-thumb.

In the course of time, however, Dr. H. H. Goddard issued his sound and valuable study of the group that he called the Kallikaks. Many of the parents and the children of the Kallikak group had actually been inmates of the institution at Vineland, N.J., of which Dr. Goddard was the superintendent; and his findings showed that the Kallikak feeble-mindedness was to a very large extent inherited.

In spite of Dr. Goddard's study, however, those who preferred to believe that it is not inherited continued to make their own studies on the assumption that unless a person has been an inmate of an institution for the feeble-minded he is to be considered normal; the corollary being, of course, that his admittedly feeble-minded offspring have been produced from "normal" parentage, and that the defect is therefore not hereditary. Then came the publication of the Army mental tests, showing plainly how overburdened by low-grade intelligences our country is. Where did all these feeble-minded persons

* Even if it can be proved that feeble-mindedness is not hereditary, there can be no doubt that feeble-minded parents are not likely to be able to exert favourable influences on their offspring, or to give them a desirable bringing up.—N. H.

come from, students began to ask. Was it indiscriminate immigration that had introduced so many minus elements into our population? Well, undoubtedly this had played an important part, but the explanation seemed inadequate. There must be some other.

Let us look at the proportion of feeble-mindedness in our population. There are 60,000 of them in public institutions in the United States; and there are at least 300,000 more who ought to be in such institutions, on the estimate of our foremost students of the subject. Then there are 3,000,000 other quite low-grade persons who couldn't possibly get through the grade schools unless they were led through; i.e., about three such to every hundred persons in the United States. Now think through your acquaintances among intelligent people; could you find three feeble-minded children among every hundred normal parents whom you know? I doubt it. Even if you were to take in mental grades up to say eleven—the moron grade—it is doubtful whether you could pick out three who have come from every hundred of your friends. Is it, then, reasonable to conclude (as did the *Journal of Heredity* writers) that feeble-minded persons spring preponderantly from normal persons?

A visit to one of these institutions for the feeble-minded offers many suggestive experiences. On all such visits that I myself make I ask certain questions of the doctors whose duty it is to interview the parents of the inmates, especially the question whether they consider all these parents to be "normal." Their common reaction is astonishment, and they have told me that a high per-

centage of the parents are decidedly subnormal, though perhaps not so low in grade as the children. Several of the doctors have spoken of the fact that usually, if one of the parents is of low grade, this one comes less often than does the higher-grade parent to visit the child. In other words, the mere fact that the parents have not actually been institutional subjects is no indication of the level of their intelligence.

The story is the same if we visit, instead, our grade schools for subnormals. Some years ago the school authorities of several of our American cities came to think it profitable to classify pupils according to their intelligence. The theory was that every pupil must be educated to do something, though not all of them had equal capacities; a good many, that is, could not be got through the grades, yet it was possible that these had a certain sort of intelligence which might enable them to become useful citizens. Accordingly, special schools were provided for these subnormals. Pupils who, in the classes for normal children, appear to be extremely backward, are examined by trained psychologists and, if found to be subnormal, are given a manual education in the special schools.

In New Haven from 1819 to 1929 five thousand pupils were educated in these special schools, and the number would be even larger if the buildings had been adequate during the early years of the movement. This means that out of a total population of 160,000, there have been 5,000 between the ages of eight and fourteen who were subnormal, a large proportion being of foreign-born and Negro parentage.

I have visited these schools, putting again the question I put to the authorities in the institutions for feeble-minded: "How many normal parents do you have coming to this school to visit their feeble-minded children?" And the usual reply is, "Very few indeed." This testimony here is that subnormal children come from subnormal parentage, not from normal. To the authorities this seems so safe a generalisation that it is possible to predict with reasonable certainty, when one child comes to the school and the records indicate that there are younger children at home, that most of the others in the family will follow. Some records I have studied show that six, eight, or even ten children from one family have attended the same school. It is of interest, moreover, to note—though the fact is not relevant to our discussion—that the subnormal parents were in some cases comparatively well off, one father owning five apartment houses, though all his children went to the school for subnormals.

No, I cannot place any faith, on the basis of all the evidence I have been able to collect, in the theory that feeble-mindedness is a simple Mendelian problem, a trait produced by a single pair of recessive genes—in other words, not inherited from a line of feeble-mindedness. There is no case known in which a pair of feeble-minded parents, themselves the offspring of feeble-minded, have produced a normal child; nor is there, to my knowledge, any record of any pair of feeble-minded persons who have come from normal parents and who have married and produced normal offspring, since when such persons

are born of normal parents the latter see to it that their offspring do not marry.

I have written *no case* and *no record*, but my negative applies only to researches in our own country. I do know of one exception, and the case is a rare type of feeble-mindedness that may, it appears, spring from a single pair of recessive genes. The Swedish investigator Torsten Sjögren found two types of amaurotic idiocy in an isolated valley in Sweden. This is a rare mental defect associated with progressive blindness and paralysis. He found that both forms were undoubtedly transmitted by " carriers "—persons who themselves are normal but who may pass a defect through to another generation. If it is this exceptional kind of subnormality that the *Journal of Heredity* writers were using as a basis for their assumption, it is far too slender a basis, since this is not the type of feeble-mindedness that is giving humanity so much concern to-day, especially in our country.

As regards the inheritance of insanity, we know less than we do about the inheritance of feeble-mindedness. As our knowledge grows, we shall very likely agree that environment and heredity working together account for mental disease, and that in certain specific forms one exerts more influence than the other does. Already we have such studies as that made by Kraepelin, who tells us that an investigation of his patients in Heidelberg disclosed the fact that, in 80 per cent of the cases of manic-depressive insanity, heredity was the predisposing factor; while in an investigation of 1,000 cases of dementia præcox he found hereditary abnormalities in 53.8 per cent of the cases.

Likewise Sümner, investigating hereditary influences in manic-depressive insanity, found hereditary taint in 84 per cent of a series of 650 cases. Others have made similar investigations and found a smaller percentage, and yet others have come to the conclusion that the percentage is higher.

We have not considered epilepsy and its mode of inheritance. Ten years ago we were much more certain about its cause than we are to-day. That some forms of it are hereditary is not denied, but to lay the blame for all epilepsy on heredity is now no longer the practice. Myoclonus epilepsy, a rare form, is transmitted as a simple Mendelian recessive. Perhaps other forms are, too. Time alone will tell.

Right here, at any rate, a word of warning is in order to those who can find heredity responsible for all degeneracy. It would not be at all difficult to prove that the tendency to automobile accidents runs in families: all that we should need to do is to assemble as many records as possible of cases where a number of representatives of the same family were killed in automobile accidents, and we should have proved our case—yes, proved it in the same way that a lawyer proves his, but *not* in the way a scientist proves a fact.

Much of the early work on the inheritance of epilepsy was done in this way. There was epileptic Johnny. There was his Aunt Hannah, also epileptic, and there was perhaps Cousin Nellie. These stood out in his pedigree, showing that his epilepsy was probably hereditary. That kind of thing was a simple matter to study. But could we turn the picture around and, on the basis

of what we knew about the pedigree, predict before Johnny's birth that he was going to be epileptic? No, we could not.

We have to assemble large numbers of cases and determine whether, on the basis of them, a definite percentage is found which indicates the inheritability of the trait. Studies made in this way do not indicate that epilepsy in all its forms is inherited; but they do show that there is a greater chance for children to be born with the deficiency where there are cases of it in the families than there is for them to have epilepsy where there is no family history of it in their antecedents.

In the case of mental disease, as well as mental defect (feeble-mindedness), we frequently find that the trait itself is not transmitted, but that some other trait akin to it is passed on, almost as though one characteristic had the ability to become transmuted into another. For example, it is not at all uncommon to find a family with a number of feeble-minded children, and a parent who is epileptic. In mental disease, we would do better oftentimes to think of it as the interaction of heredity and environment, and consider that the predisposition rather than the disease is inherited. But whichever is inherited—predisposition or disease—is it not better to weed out the types of minds that have low breaking-points, and encourage the types that can stand all kinds of mental strain without succumbing?

Our final consideration is the rate at which the subnormal group is reproducing. If as a group the feeble-minded are having more than 3.5 children to a family, they are increasing; if less, they are decreasing. One

American figure and one English may serve to answer this question. In my New Haven study I found the average to be 7.1 children, which means (as shown by our figures of survival averages on page 73) that the group is practically doubling with each generation.

Dr. A. F. Tredgold, the celebrated English expert on the Royal Commission on the Feeble-minded, says:

> I have pointed out over and over again that whilst the average born in a family throughout the whole community is four, the average in these degenerate stocks is seven [the same as found in the New Haven study], and there is not the slightest doubt that a very large proportion of the progeny will go to swell the ranks of the socially inefficient.*

To sum up, these facts are important in any study of the desirability of sterilisation for the feeble-minded: that those who are in institutions and are likely to remain there need not be sterilised since they are not free to reproduce; that any who are likely to be released either temporarily or permanently ought to be sterilised to prevent their continuing their kind; that the number of feeble-minded is increasing; that the mere fact that a person has not been an inmate of an institution for the feeble-minded is no proof that he may be considered "normal"; that there is, outside of our institutions, a vast reservoir, somewhere, which is at present turning out feeble-minded persons. This reservoir is our borderline group, consisting of many millions of individuals. There are the chief producers not only of their own type, but of the lower grades as well.

* *Mental Deficiency*, 4th Ed., London, 1922, pp. 14–15.

CHAPTER VIII

A PAGE OF HISTORY

More than 16,000 persons have been sterilised in our public institutions since the practice first became authorised by law. Sterilisation for other than eugenic reasons, however, had been in use in various parts of the world for thousands of years before that time. In the Near East and elsewhere men have been rendered sterile (by castration, not by vasectomy) in order to make them safe to have about the court and the monarch's wives, or to render them docile as slaves, or to prevent racial amalgamation. The first to be sterilised were the eunuchs, the method being castration. Similarly, the male members of captive tribes were castrated on becoming slaves, and their women bore children to the conqueror. The difference between the thought that caused these early sterilisations and the modern theory is marked. The early ones were made wholly for the exploitation of human beings by their fellow men. The modern ones are performed with due regard for human rights and for the betterment of the human race.

In the United States, before the period of agitation for State laws, a number of far-sighted persons were urging castration as a sterilising procedure. To-day, though we may credit them with vision, we cannot praise

their choice of method. For instance, we find, in 1898, the trustees of the Kansas State Institution for Feeble-minded Children approving by resolution the work of Dr. F. Hoyt Pilcher of that institution, who had castrated forty-four boys and fourteen girls over a period of years. Public opinion took sides in the controversy that followed, and the practice was stopped. In 1897 the State of Pennsylvania was debating the subject at the instance of Dr. Martin W. Barr; so was Massachusetts, led by its pioneer in the care of epileptics, Dr. Everett Flood. But a Texas physician, Dr. F. E. Daniel, had somewhat anticipated these men by publishing in 1893 a long article entitled "Should insane criminals or sexual perverts * be allowed to procreate?" From 1899 onward for some eight years Dr. H. C. Sharp of Indiana sterilised patients who were "guests of the State." In 1905 the Pennsylvania legislature passed the first law, but the Governor vetoed it. Indiana led in the first actual passage of a law, in 1907. By 1911, when the Indiana Governor threatened to cancel the appropriation of any State institution that adopted the legalised practice 873 had been sterilised. From the time the law was passed up until 1925 only 120 vasectomies were performed; for some reason the surgeons got wary about operating when the law allowed it, though they had not hesitated when it didn't. Twenty-seven States have, from 1907 to the present date, passed valid laws authorising sterilisation, and others will undoubtedly legislate this year.†

* See footnote on pp. 4, 29, 31, 33.

† See Appendix C for table showing sterilisation figures for the States having laws.

The Superintendent of the Eugenics Record Office, Dr. Harry H. Laughlin, has been of the greatest assistance to the legislators of many States. To him they have turned for information in their endeavours to get sterilisation laws enacted. Dr. Laughlin was the author of the first formal book on the subject, *Eugenical Sterilisation in the United States*. It is to the foresight of Chief Justice Harry Olson (who established the Municipal Court in Chicago) that we owe the publication of this epoch-making book. Judge Olson had always been interested in the eugenics movement and was for some years a director of the American Eugenics Society. It was he who established the first psychiatric clinic in connection with any court. His backing made it possible for the work to be published, and his public addresses on the subject helped the book to succeed. Though now out of print, the book, as well as its author, has had a profound influence. Dr. Laughlin's correspondence with interested legislators and laymen has been voluminous. In 1916 he wrote a smaller work, bringing the study down to date. Thousands of copies have been distributed by the American Eugenics Society along with a great deal of other reading matter and scientific information to all who asked for material.

The American Eugenics Society has never instigated campaigns for the enactment of such legislation; it has been too busy giving help to the various people all over the country who were the willing instigators and local propagandists in their own States. I emphasise this point because so many persons have had the notion that extra-State interests have sometimes interfered to exert

what these critics felt to be a diabolical influence on the progress of the movement. Such, however, has never been the case. When asked to do so by interested people who were willing to work, the Society has sent persons to testify, and has forwarded booklets such as *The Eugenics Catechism* and Dr. Laughlin's work, with perhaps a pamphlet or two dealing with related subjects. These would be distributed by interested members of the legislature, and the others would find copies on their desks when they took their seats on the day when the case for sterilisation was to be heard.

So much for beginnings. The next step forward was taken by Mr. E. S. Gosney, a well-known Pacific Coast attorney, and the noted biologist Dr. Paul Popenoe, who together initiated the series of studies to which I have so often referred in earlier chapters. The material they gathered was obtained through the use of questionnaires which the authors sent out to California physicians and surgeons known to be in touch with sterilised patients, and of other questionnaires sent similarly by the superintendents of State hospitals for the mentally diseased to as many of their former patients as could be reached. Besides these avenues of information, the Los Angeles Obstetrical Society, at Mr. Gosney's instance, undertook an investigation of sterilisation in private practice, involving 420 cases of the sterilisation of women. Finally, a good deal of first-hand information was secured through field workers and also from statements made by sterilised patients to their surgeons. Some of the figures that emerged from these studies have been cited earlier in this book. The resultant material

appeared from time to time in various scientific journals, and reprints were sent out when requested. Eventually the two men summarised their findings in an excellent treatise called *Sterilisation for Human Betterment*,* which has had a powerful influence on the progress of the movement.

Up until 1931 the movement was promoted by public-spirited men and women of all religious faiths; but in that year an encyclical of the Pope arrayed the Roman Catholic Church against it. This attitude is of course regretted by all those who are advocating the benefits that sterilisation will bring to society; yet they know that the cause is a noble one, supported by the soundest scientific principles as well as by the highest ethical considerations, and they believe that when it is correctly understood it cannot fail to appeal to every intelligent, sensible, and forward-looking person in the community.

Practically all of the Jews with whom I have discussed sterilisation have been in favour of it. This includes many eminent rabbis, but they also are liberals. It is doubtful, however, whether the orthodox Jew will align himself with those who favour the practice; a few of them have recently publicly opposed it. According to my friend, Dr. David de Sola Pool, upon whom I have relied for much information regarding the ancient teachings of the race, the orthodox Jewish rabbinate is the official interpreter of Jewish traditions and it would be indeed difficult to obtain its favour for sterilisation. This, he shows, is the reason: vasectomy is one of the

* New York, 1929.

three methods of sterilisation forbidden in the official Jewish legal code, the Shulchan Aruch.*

Says Rabbi Pool, "The oldest interpreter of the Bible leaves no doubt as to this. In Josephus Antiquities IV, 8, 40, in the summary of the Laws of Moses, it is written, 'Let those who have made themselves eunuchs be held in detestation; avoid the company of those who have deprived themselves of their manhood, and of that fruit of generation which God has given to men for the increase of our kind. Let such be driven away, as if they had killed their children, since they have destroyed beforehand what would procure them. For evident it is that while their soul has become effeminate they have also transfused that effeminacy to their body. In like manner do you treat all that is of monstrous nature when it is looked on; nor is it lawful to geld either men or any other animals.' Surely a clear and emphatic enough statement of the case.

"The rabbinical elaboration of this fundamental Biblical prohibition is as follows: 'One who is congenitally sterile is not forbidden to marry, but one who has been made sterile, whether through operation or accident, is so forbidden.†

"'It is forbidden to give any man or any animal any drug which will sterilise, but it may be given to a woman on the authority of a physician. [Talmud Sabbath III.]'"

So it would seem that even the orthodox Jew may

* I cannot understand how Dr. David de Sola Pool can say that vasectomy is forbidden by the Shulchan Aruch. Vasectomy was not known at the time that the Shulchan Aruch was written.—N. H.

† The rabbinical elaboration should surely confine itself to sterility due to castration, and not extend to sterility due to vasectomy.—N. H.

favour female sterilisation, but not male. Here is a very commendable thing about the Jews: they look upon their laws as applying to Jews alone. Their religious laws, moreover, where public health is concerned, have been in accord with scientific principles. Rabbi Pool says, "While the Jewish law does not allow the Jew to make a capon, it has no objection to a Gentile doing this. The same principle, it seems to me, would apply to whether a Jew would object to others availing themselves of sterilisation."

Another obstacle in the way of progressive legislation on the subject is the attitude too often assumed by the legislators themselves. As with birth-control laws and others of the kind whose object is the betterment of the race, so our projected laws for authorising sterilisation are too commonly debated emotionally or politically rather than in a spirit of objective inquiry. I myself have attended so many such hearings on these measures that I have almost given up hoping that they are ever likely to be considered on their merits. As every observer knows, too many of our legislators to-day approach the business before them in the light of its potential influence on votes.

The same thing applies to getting such laws administered when once they are enacted. In most cases appointments to the staffs of institutions are political appointments. Then, if the boss gets complaints that a number of his voters are opposed to the administration of the sterilisation law, he quickly passes the word to the superintendents; and superintendents have a notable faculty for keeping an ear to the ground. Herein probably

lies the reason why some of our existing sterilisation laws are put into practice so little. The quality of statemanship—i.e., the power of envisaging the true worth of any movement to improve future generations—is conspicuously lacking in our legislators and our administrators alike, as regards their attitude towards legalised sterilisation. If you doubt this, just ask any of the more intelligent members of your State legislature. Until public opinion is so thoroughly roused that a larger bloc of voters demand legislative action, and administrative follow-up, the situation is likely to remain as it is now.*

In Canada and in Europe sterilisations have been fewer than in our country. Until a year ago only one Canadian province had a sterilisation law—that in Alberta; but in April, 1933, British Columbia passed one, and judging from the correspondence on the subject that has been passing between these two and the other provinces it will not be long now before sterilisation will be effective in all but the Roman Catholic provinces. Alberta has sterilised more than 300 in the five years since its law was enacted, all operations being on the voluntary basis.

In 1907 Switzerland sterilised the first patients: two women, 25 and 36 years old respectively, and two men of 31 and 32. All these were castrated, and they were subsequently, with one exception, respectable members

* In 1928 the late Lord Melchett (then Sir Alfred Mond), Minister of Health, told me that he was in favour of giving birth control advice at the State supported welfare centres, but that politicians could not move in this matter until there was a sufficient public demand for it. Thus the phenomenon of legislative action following public demand is evidently the same in England as in the United States.—N. H.

of society; one of the men committed petty thefts, but his sexual offences ceased. The work has gone on in that country ever since, with modern methods in use.

Denmark passed a law in 1929, under which 54 persons have been sterilised, all by castration—which is very remarkable in view of the fact that this type of operation is prohibited by the existing penal code of the country.

In England the Eugenics Society, headed by Major Leonard Darwin, a son of the great Charles, is doing excellent work in bringing home to the people the need for sterilisation. In 1930 the Society sent Mrs. Cora B. S. Hodson to our country to make a study of the subject and to report not only to England but to Germany and other countries as well. She made an exhaustive inquiry, gave many lectures which were heard by thousands of Americans from coast to coast, and went back home full of information and enthusiasm. As this is being written, England has had a "voluntary" law introduced for legislative action, based upon a study made by a committee of scientists.*

The latest word on the subject has come from Germany. Under the dictatorship of Adolph Hitler, a complusory law has been passed with his approval. I have had considerable correspondence with certain German scientists who ever since the War have been enthusiastic advocates of sterilisation, and I am informed that before the subject came to the attention of the present

* This law was not passed. Since then a committee has been set up to inquire into the subject of legislation about sterilisation, and its conclusions may be found in the "Brock Report."—N. H.

authorities there had for many years been agitation for a *voluntary* law. We must remember that Germany has long known more about her defectives and the nation's health in general, both physical and mental, than most countries do about theirs, and that she has been twenty years ahead of the United States in psychiatry and somewhat ahead of us in applied psychology. Much of our best information on the mind has come from Germany; and even before the War, that country had figures on her population that put ours to shame. To realise how much attention the Germans have given to the study of heredity for many years, one has only to look over the remarkable list of books dealing with the inheritance of mental and physical traits that have come out of Germany. While we were pussy-footing around, reluctant to admit even that insanity of certain sorts runs in families, the Germans were calling a spade a spade. True, they did export a few pseudo-scientists who on American lecture tours told our people that there is "nothing to heredity." But I have often suspected that their real reason for coming over was that they knew they would find less opposition here to their ideas because we had, relatively, so little knowledge of the subject. To-day these same men are not enjoying their former popularity and prestige among us. On the other hand, men like Kahn (now of Yale) and Kraepelin were and are capable leaders who spoke plain and recognised inheritance when they saw it; and these men especially have exercised an undoubted influence on the attitude of the German leaders to-day.

The 400,000 known defectives in Germany who become

subject to the new law are about equally divided into men and women, and they have been listed as follows in the official inventory, according to the Associated Press despatch from Berlin at the end of December, 1933. The law applies to hereditary defects as follows:

(1) Feeble-mindedness, tentatively estimated at 200,000 persons.
(2) Schizomania, 800,000.
(3) Insanity, 200,000
(4) Epilepsy, 60,000.
(5) St. Vitus' dance, 600.
(6) Blindness, 4,000.
(7) Deaf-mutism, 18,000.
(8) Serious physical deformity, 20,000.
(9) Chronic alcoholism, 10,000.

And this represents but a small beginning, we are told! Though not all of us, probably, will approve of the compulsory character of this law—as it applies, for instance, to the sterilising of drunkards*—we cannot but admire the foresight revealed by the plan in general, and realise that by this action Germany is going to make herself a stronger nation. No one can tell now, naturally, how the law will work out in practice. By its very stringency it may defeat itself; or, on the contrary, it may prove to be one mighty step toward the creation of a better German race. In any event, we in this country

* This partiality for drunkards is probably a reaction against the Prohibition laws, which ruled for so many years in America. Actually confirmed drunkards *should* be sterilised, for habitual alcoholism in the parent is very likely to damage the offspring. Mental defects frequently occur in the offspring of habitual alcoholics.—N. H.

need have no fear lest any similar wholesale measure be adopted, since we are not living under a dictatorship.

American Jewry is naturally suspecting that the German Chancellor had the law enacted for the specific purpose of sterilising the German Jews, but I believe nothing to be further from the truth. The German law provides for the sterilisation of *hereditary defectives only.* It safeguards the rights of every individual,* and where it sterilises it will not maim. The measure is solely eugenic in its purpose, and were it not for its compulsory character it would probably meet with the approval of all who are free from religious bias.

Undoubtedly we shall now see a wave of popular sentiment sweep the world. Already a number of countries that have not yet actually passed any laws are manifesting a vivid interest in the subject. The interest of the Soviet governments in eugenic measures is well known. Russia has legalised abortion, so that any woman (with certain limitations) may have it performed for a small fee by a government surgeon. We may expect sterilisation laws to be enacted there before long if the interest manifested by Russian scientists and legislators is any indication. The Japanese, too, are in close touch with the situation. In 1929 the American Eugenics Society sent Professor Roswell H. Johnson to Japan to study the eugenic problem there, and he returned with the impression that the Japanese are as

* The unbiased observer who has watched events in Germany since Hitler's accession to power is not likely to estimate very highly the respect paid to "The Rights of Every Individual" if the individual happens to be a Jew or a liberal.—N. H.

keenly alive to the subject as are the people of almost any other country. Besides these examples, the following are now considering laws, already proposed and drafted: Tasmania, New Zealand, Finland, Norway, and Sweden. Sterilisation and race betterment are indeed becoming compelling ideas among all enlightened nations to-day.

CHAPTER IX

HOW MANY OUGHT TO BE STERILISED?

The subject of this chapter is the number of persons in the United States who, according to various estimates, need sterilising. The persons whom society could do without are more numerous than those whom it should sterilise. If in one fell swoop we could eliminate all our useless degenerates, incapable of anything beyond a kind of gross animal happiness, if we could awaken one morning and find all these gone in some mysterious but painless fashion, what class of persons would we fix on to be the ones eliminated?

Because we know that any nation is great according to the kind of people who compose it, because we know that persons with good intelligence and well-balanced temperaments make the best neighbours, it is quite likely that most of us in choosing would start from the top and work downward. A little thinking, however, would suggest that the better method would be to start eliminating at the bottom. We should go to the institutions for the feeble-minded and look at their inmates. The first ones to be picked out would probably be those of so low a grade as to be hardly better than human vegetables. It would require no divine ability to decide on these. Next we might select the imbeciles, who can be taught

to use their handkerchiefs and to perform other little commonplace acts, but nothing more. By this time we should have a long list—something like 60,000 inmates of institutions, our very lowest grades of intelligence; but we should have made only an infinitesimal dent in our population. If we were then to add to our list all the hopelessly insane we should be adding approximately another 60,000. But what would this amount to, in a nation of 120,000,000 persons? Practically nothing. Moreover, we should have to admit that all these unfortunates will probably stay in institutions for the rest of their lives anyhow, and so wouldn't reproduce, so why should we worry about them? Well we shouldn't worry very much, except on the ground of the money they are costing us.

Our next step, then, would have to be out into general society. Now if we were bent on selecting all the persons whom society would be better off without, we should find a good many millions of them—bungling their work, existing meagrely when times are good, and living off the rest of the population when times are bad. Undoubtedly society would be better off without such, though the assertion has been made that we need them for our drudgery—for the "dirty work" of the world. This assertion will be discussed later under the objections commonly raised to sterilisation.

The question would now arise, How far up the intelligence scale are we to go? The Army mental test results showed that the white men in the American draft for the World War could be classified as to intelligence by the following percentages (in round numbers):

4 % very superior.
8 % superior.
15.2% high average.
25 % average.
23.8% low average.
17 % inferior.
7.1% very inferior.

They showed also that half of our adult population is below the mental age of 13.2—i.e., the age of a normal bright boy of thirteen. It was a distressing revelation, and its bearing on our present interest is that, if we put our lower limit of desirability at thirteen *mental age*, we should be considering the sterilisation of half our fellow-countrymen! The age of ten is by some psychologists regarded as the line of demarcation between the dark and the daylight of usefulness. Men and women whose minds have never grown older than that of a normal child of ten require more supervision and assistance at any work they do than the product of their work will pay for. Time was when a person of this mental age could be taught to sit at a punch press and feed it, but the need for this sort of work is decreasing.

There are several ways of estimating the number of feeble-minded persons. The Army mental tests, though often criticised, do nevertheless furnish a reasonable index of mentality, and they show us that 4,800,000 men in the white draft had an I.Q. (intelligence quotient) below .70. The intelligence quotient is arrived at by dividing the *mental age* of the person by his *chronological age*; as, for example, a young man of 19 whose mental

age is only 13 and has an I.Q. of .68, and a man of 23 whose mental age is 15 has an I.Q. of .65. This group of 4,800,000 white American adults, therefore, with an I.Q. of .70 have less than three-fourths of the intelligence they should have to be called normal. Because an I.Q. of .70 means a low mental age, it is fairly well agreed that persons with any less intelligence than this are incapable of getting along without an over-costly amount of supervision.

The figures emerging from the Army tests are roughly paralleled by the conditions found in New Haven during the study of the 5,000 children who had been in the schools for subnormals. All these were mental-tested so that there was no guesswork. The tabulations showed that slightly over 5 per cent. of New Haven's citizens are feeble-minded. If this condition is typical of the whole country, we shall have to estimate the number of our feeble-minded at 6,500,000.

The Negroes in New Haven furnished six times as many subnormals as did the native-born whites,* and the Negro population of that city is probably no less intelligent than the rest of the Negro population all over the country; if anything, it may be higher, since some students hold that a Negro has to have more intelligence and gumption to migrate from his Southland than he needs to stay in it. If this is so, something like a eugenic selection has taken place. Let us hope, however, that the New Haven figures are not typical. The book *Army Mental Tests* by Yoakum and Yerkes has this to say:

* The unbiased observer asks himself how far this is due to nurture, and not to Nature; that is, how far the subnormality is due to unfavourable conditions largely imposed on the blacks by the whites.—N. H.

The comparison of Negro with white recruits reveals markedly lower mental ratings for the former. A further significant difference based on geographical classification has been noted in that the northern Negroes are mentally much superior to the southern.

Thus, if we add the Negro total of feeble-mindedness to the white, we raise our number still higher. Even if we do not, however, there is another addition that we cannot avoid making: the 4,800,000 persons in the United States who before they die will be classified as insane. Lest any one doubt this statement, here are some facts. In our asylums there are 300,000 inmates at any given time, and the turnover is so rapid that two patients are admitted for every one patient who is discharged, 80,000 new patients being admitted annually. Death also takes a good many. One person out of every 25 becomes an inmate of a State hospital for mental defectives during the course of every generation; one family in every seven is represented.

But no less an authority than Dr. C. Floyd Haviland, who was Commissioner of Health for New York and director of the Manhattan State Hospital, estimated that there are five to six times as many mentally diseased persons *outside* of institutions as there are *in* them. If all were committed, the number of our mentally diseased in institutions would be 1,800,000.

Without doubt the foreign-born have had a good deal to do with the size of these figures, and for this fact we may largely blame our lax immigration laws. The foreign-born furnish in some cases as much as six times as many feeble-minded as natives do, while as for the

mentally diseased the foreign-born (averaging all nationalities) furnish 175 for each 100 native-born.

There are two-thirds as many mental defectives confined in our public institutions as there are students enrolled in the regular college courses in the United States.

Suppose we look at the problem from another angle. Let us think of the criminals.* Do they come from the best homes, or from inferior homes? If we tend to pity the criminal because he has come from the wrong kind of early environment, let us ask what type of parents have produced that environment for him? It is from the typical environment of the mentally low-grade that both our city gangs and our criminals are derived. It is these border-line elements that make up our slums, and this is true in spite of the occasional exceptions found in gifted writers and other artists; for the latter do not as a rule emerge from people who have spent three generations as slum-dwellers—they are more likely to come from the families of recent immigrants in whom the skimming process has not yet begun.

If we could purge the country of our typical slum elements, in city and country alike, what harm would be done? Why would it not be well worth while to include them in the group whom we are weeding out of the population garden? And how many of them are there? Nobody knows. This addition to our list could hardly be counted exactly.

Including all the various types of less useful social

* Again, this very loose conception, "the criminal." A man is a criminal in one country for acts which would not render him a criminal in another country at the same level of culture.—N. H.

elements, we should probably be disposing of the lowest fourth of our population; and, after the economic adjustment, we should hardly miss them. But I am not here suggesting that all these be sterilised wholesale, but merely that we make voluntary sterilisation available to them.

It is for this reason that I am somewhat in sympathy with those who ask: Suppose in a few cases we do sterilise some person who is not likely to pass dysgenic traits on? Suppose we do make a mistake occasionally and sterilise somebody whose abnormality is due to accident and not to heredity? What's the difference? Whether we believe that the subnormality is traceable to heredity or to environment, what we want is *good children* in *good homes*. Degenerate parents cannot bring children up properly. What harm if they become sterile?

Judge Harry Olson of Chicago, whom I have mentioned before, was once asked to speak at an important meeting. Ahead of his speech two other numbers appeared on the programme. First a woman speaker rose, holding a bag, which she presently opened, drawing forth some baby things. These she held up, one at a time, while she told of the good work that her Society was doing in rescuing abandoned waifs, of the money that was needed for their reclamation, and of how the homes in which these children were placed were moulding their characters so that they would become fine men and women. The good old appeal! People open their hearts and their pocketbooks when it is made.

Following her, a man sang Henley's famous poem, *Invictus*. Then Judge Olson was introduced. He came

forward, with that well-known dignity, that calm, compassionate expression, and for a moment stood silent. Then he said: "My friends, my subject has been announced as *The Prevention of Crime*. But I have just now decided that I am not going to speak on that subject. We have all heard a beautiful rendering of Henley's poem, and I am going to speak on a subject that it suggests to me: 'I am *not* the master of my fate—I am *not* the captain of my soul!'" And there followed an extemporaneous speech that will never be forgotten by the audience that heard it.

Judge Olson was right: there are millions of Americans who are not—never have been—the controllers of their own destinies; through heredity or through environment they have all their lives been "bound in misery and iron." And when I begin to weigh this question of heredity versus environment as a determing factor, I always think of Judge Olson and of one other man. When Olson—then Mr. Olson—was in the State Attorney's office, he was considered a prosecutor of great promise. Contending against him was another promising young man named Clarence Darrow. Mr. Darrow has told me that Olson was the smartest prosecutor he ever had to meet; and Judge Olson tells me that Darrow was the cleverest, ablest defence attorney he ever argued against. In his earlier days Olson was given to stressing heredity as the predisposing cause of crime, while Darrow insisted on environment; since then, each man has shifted his position somewhat. I mention these facts as preface to the interesting coincidence that Mr. Darrow—without dreaming that

Judge Olson had ever done so before him—also spoke once on this same text: "I am not the master of my fate—I am not the captain of my soul."

To say that to-day both men, having changed their views considerably, hold that heredity and environment are perhaps equally important as determinants is only to say that they are probably representative of the majority of us. It seems to me immaterial whether we hold that a boy is a bad citizen because he has inherited bad traits from his forebears or whether we blame his childhood environment for these; in either case, if he is the child of bad parents he has not had the right start, *and they ought never to have produced him.* His start must come from his parents, and whether his subsequent useless or vicious life is the result of germ-plasm or of their inability to rear him right makes no difference: sterilising them will prevent their launching other potential defectives or criminals to burden our civilisation.

In the case of such children it is too late to think of their heredity or their environment if we wait until they are grown. Since they did not "choose good grandparents," as the first Oliver Wendell Holmes advised us all to do, there remains now, apparently, only the resource of sterilisation if we are to help future generations to be freed of the effects of that bad heredity or that bad environment. I say "apparently" because in subsequent chapters I propose to show that there are other ways of attacking the problem than any such wholesale compulsory sterilisation as is implied in the elimination of the ten millions of our population whom we should be able to get along without.

CHAPTER X

WHAT HAPPENED TO CARRIE BUCK

In Virginia they sterilised Carrie Buck. But before they got her sterilised, a storm of litigation had risen and raged, not to be stilled until the Supreme Court of the United States handed down a decision which made history.

In Carrie's case the operation was compulsory, and what had to be established first was whether or not she was feeble-minded. It was proved that she was; mental tests showed that though she was 18 years old chronologically she was only about 9 years old mentally. It then became relevant to determine, as well, whether she had been socially adequate. Her past record was therefore put on file, proving that Carrie had never been self-sustaining except under supervision; that she had had a baby who also was a mental defective; that her life thus far had been marked by untruthfulness, immorality,* and prostitution. All things considered, the authorities maintained that they had done the proper thing in having her committed as a feeble-minded person under the laws of the Commonwealth of Virginia.

Then it was proposed, further, that the girl should be sterilised. But sterilisation, as performed in our

* One would like to know exactly what is meant by "immorality."—N. H.

public institutions, is authorised only in case an inheritable defect can be proved. So the State detailed agents to study Carrie's antecedents. They found that the identity of Carrie's father could not be ascertained, though learning facts about her mother was not difficult. Why? Because her mother, Emma Buck, was an inmate of the same institutional colony. The mother's chronological age was 52, but she proved on test to be slightly under 8 mentally. Before being committed, she too had been a prostitute, had had syphilis, and had given birth to two sons before Carrie. The agents reported, in addition, that the family stock on the mother's side was typical of "the shiftless, ignorant, worthless class of anti-social whites of the South." Like Carrie's own father, the fathers of her two half-brothers could not be traced. The agents found that, although the shifting habits of her class and family made it almost impossible to learn as much of her background as they wanted to, they did learn a good deal. She had been abandoned as a baby and adopted when she was four by a Charlottesville woman, who had given her all the education that the backward child could absorb; Carrie had gone as far as the sixth grade.

But in spite of this good environment Carrie took to immorality. This was tolerated by her foster-mother as long as she could stand it; but when Carrie became pregnant that was the last straw. The girl had demonstrated that she was almost useless except under strict supervision and certainly incapable of self-support or even of self-restraint.

All these findings revealed the girl as not only the

daughter of a feeble-minded person but also as the parent of a child who had inherited her mental deficiency. In a word, Carrie had fulfilled every requirement of the Virginia statute; so she was ordered to be sterilised by the Special Board of Directors of the State Colony for the Epileptic and Feeble-minded, as required by law, on the petition of A. S. Priddy, superintendent of the colony. His reason? Carrie was at the moment an inmate of the colony, and if she were to be discharged she would go out as the potential parent of still other socially inadequate offspring. He said that she could be sterilised without harm to her general health. Oral evidence was presented before the Board, and it ordered the sterilisation.

Then came the storm. Judge Bennett T. Gordon of the Circuit Court appointed a guardian for Carrie. As is the usual procedure, he listened to testimony, including that presented to the Special Board and a deposition by an expert in heredity who analysed Carrie's case from that viewpoint. The Judge then affirmed the decision of the Special Board. The case was thereupon appealed.

In the Virginia Supreme Court of Appeals, Judge Jesse F. West sustained the statute, declaring that "the act complies with the requirements of due process of law," that it "is not a penal statue" and therefore cannot "impose cruel and unusual punishment," and finally that, because the statute "does not deny the appellant . . . the equal protection of the law, . . . the Virginia Sterilisation Act is based upon a reasonable classification and is a valid enactment under the State

and the Federal Constitutions." Before rendering his considered opinion, Judge West listened to the testimony of two institutional heads and two experts on heredity.

One of the latter, Dr. Harry H. Laughlin, Superintendent of the Eugenics Record Office, testified that in the archives of that institution there were many manuscript pedigrees of families with feeble-minded members. These pedigrees, he said, proved conclusively that both feeble-mindedness and other intelligence levels are in most cases accounted for by hereditary qualities. "Modern eugenical sterilisation . . . is a force for the mitigation of race degeneracy, and one which, if properly used, is safe and effective. I have come to this conclusion after a thorough study of the legal, biological, and eugenical aspects and the practical working out of all the sterilisation laws which have been enacted by the several States up to the present time."

Of the large amount of testimony offered, a few points are worth special consideration. The superintendent of the institution in which Carrie was confined made some points that will be remembered and quoted more and more in years to come.

"*Q.* Taking into consideration the years of experience you have had in dealing with the socially inadequate, and more particularly with the feeble-minded, what, in your judgment, would be the general effect, both upon patients and upon society at large, of the operation of this law?

A. It would be a blessing.

Q. Of course these people, being of limited intelligence, lack full judgment of what is best for them, but generally, so far as patients are concerned, do they object to this operation or not?

A. They clamour for it.

Q. Why?

A. Because they know that it means the enjoyment of life and the peaceful pursuit of happiness, as they view it, on the outside of institution walls. Also they have the opportunity of marrying men of their mental level and making good wives in many cases. . . . The strong reason for the operation of the sterilisation law is that the State contemplates the detention of these women in the institution during their child-bearing period of from twenty-five to thirty years; and by sterilisation—an absolutely harmless operation—within three weeks the end that would be attained in twenty-five years would be brought about. They are no worse off when sterilised surgically than when sterilised by Nature after being kept locked up for twenty-five or thirty years.

Q. In other words, when segregated, they are effectually prevented from propagation?

A. Yes, sir. And there is another matter to be considered: when you keep these women locked up for twenty-five to thirty years, the door of hope is closed to them. They are incapable of getting out and earning their own living.

Q. In other words, you have to train them young, and if you postpone their opportunities for training they get so they cannot do it?

A. Yes, sir; they become helpless and lose confidence in themselves."

A large number of cases were cited in the court to show that Carrie had had due process of law, that no cruel and unusual punishment was contemplated, that this was not a case of class legislation under the meaning of the law, that the State had the power to enact legislation so long as it did not deprive the individual of his or her constitutional rights, that this operation was akin

to compulsory vaccination, and that there are manifold restraints to which every person living in an ordered community is necessarily subject for the common good.

Finally Carrie's case reached the Supreme Court of the United States. It was then that Mr. Justice Holmes delivered his now famous opinion.* Here it is:

"We have seen more than once that the public welfare may call upon the best citizens for their lives. It would be strange if it could not call upon those who already sap the strength of the State for these lesser sacrifices, often not felt to be such by those concerned, in order to prevent our being swamped with incompetence. It is better for all the world if, instead of waiting to execute degenerate offspring for crime, or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind. The principle that sustains compulsory vaccination is broad enough to cover cutting the Fallopian tubes. . . . *Three generations of imbeciles are enough.*

But, it is said, however it might be if this reasoning were applied generally, it fails when it is confined to the small number who are in the institutions named and is not applied to the multitudes outside. It is the usual last resort of Constitutional arguments to point out shortcomings of this sort. But the answer is that the law does all that is needed when it does all that it can: indicates a policy, applies it to all within the lines, and seeks to bring within the lines all similarly situated so far and so fast as its means allow. Of course so far as the operations enable those who otherwise must be kept confined to be returned to the world, and thus open the asylum to others, the equality aimed at will be more nearly reached."

* Buck *vs.* Bell, 1927.

So Carrie was sterilised; Carrie, the feeble-minded girl around whom such protection had been thrown that before she could be sterilised her case went to the Supreme Court of the United States; Carrie, the ultimate decision in whose case paved the way for thousands of other unfortunates to be relieved of part of the burden of their infirmities—the birth of unwanted children whose coming, along with the inherited deficiency, is so great a handicap that hope for them is impossible.

Carrie, poor unfortunate Carrie—little does she know how greatly, if unconsciously, she has served the world!

The case of Carrie Buck is not, however, altogether typical. Naturally the courts are not always thrown open to litigation whenever a sterilisation case is under consideration. Let us take the hypothetical case of a father and mother who have a daughter in an institution for the feeble-minded in (let us say) Idaho. Mary is eighteen and has shown that she can behave pretty well when she is supervised. One day the parents get a letter from the superintendent saying that he thinks it would be wise to have Mary sterilised and then to let her go home. What do they think?

Well, to tell the truth, they have never given such a possibility any thought at all. Now they remember that there are some boys in the neighbourhood who often used to come and see Mary before she was committed, and they begin to wonder whether, if she does come home, some of these boys will be after her, and pretty soon they'll have a baby on their hands to take care of. What does the superintendent mean, anyhow, by "sterilised"?

They discuss the question, but without getting anywhere. So they decide to drive over and see the superintendent.

He is a pleasant, kindly man, entirely ready to explain anything in the situation that puzzles or troubles them. They begin to question him. What is this operation he is talking about? Will it hurt Mary? Will it make her get fat? Will it do anything to improve her mind? Will it make her less interested in boys?

The superintendent assures them that the operation, which he describes very simply to them, will cause Mary very little pain, that she will be given the best care that the infirmary can provide, and that she will not get fat as a result of it. It will not, he admits, correct her mental deficiency nor reduce her interest in boys; but if ever a boy does take advantage of her, if her feeble inhibitions run away with her, there can be no result in the form of a baby. Is this what the parents wanted to learn?

Mother looks at Father, and Father nods back. "Do you perform many of these operations?" he asks, and is at once told that a great many are being done each month and that the patients are happy over the results. So after a little further discussion the two say that they will go home and think it over some more. In fact, the subject occupies their minds and is the major theme of their conversation for several days, till at length they come to a decision and write to the superintendent that they are willing to have Mary sterilised.

The next step in the procedure is that the superintendent presents the case at the regular meeting of

the State Board of Eugenics. As prescribed by law, this is composed of "the State Health Advisor and the superintendents of all the State institutions for insane, feeble-minded, and criminalistic."

The Board take the matter under advisement, and after due consideration, again as prescribed by law, they issue a statement that as a result of careful inquiry they believe that Mary is likely to be the progenitor of children who would be feeble-minded and a menace to the State—probably, indeed, wards of the State; that there is little likelihood of any improvement in her condition; that they therefore deem it advisable that she be operated on; and that they have received through the superintendent's office the written consent of the girl's parents.

Then the Board considers what type of operation shall be performed, and orders salpingectomy. The operation done, and the girl over her convalescence, she is released to her parents. Mary can now live at home, watched by her mother, more contented perhaps than she was in the institution, running around a good deal with the boys and taken advantage of by them rather often—true; but *she never has a baby.*

It may be interesting to consider the fees paid to the surgeons who perform these operations, and what the State is liable to in the way of further expense. Most States allow the surgeon a fee of $25 and refund their travelling expenses to the Board members who act on the cases presented. With so low a surgeon's fee, there is evidently little risk of graft and no incentive for any surgeon to operate in more cases that are strictly necessary.

In no two States are the laws exactly the same, each State having provisions that apparently are considered appropriate to its own conditions. Relevant points are the density of its population, the kind of arguments offered in the legislative houses at the time of presenting the original bill, and the period at which the bill is passed. In the future there will doubtless be greater uniformity because the proponents and authors of new bills will be able to draw on the experience of other States.

CHAPTER XI

CHILDREN NOT WANTED

If you know the subnormals in our population, you know that they do not have children from choice. They accept them because they do not know how to avoid them; but they do avoid the responsibilities of parenthood, frequently at the expense of the community. *The usual reason why degenerates have children is because they can't help it.* If they knew how to prevent conception, they would adopt the procedure as eagerly* as they accept their weekly charity dole. Yet even they have but to look around them to see that nearly all intelligent persons are limiting their families.

Here is a table that Professor Huntington and I made after studying the family sizes reported by persons of various religious faiths, as listed in "Who's Who In America." You can see that the investigation has been a broad one, since actually nineteen separate religious faiths have been included.

* It is sometimes stated by people who object to family limitation that the poor would not welcome the knowledge of how to limit their families, even if it were made available to them. Many years' experience at birth control clinics for the poor in London has taught me that the slum poor are eager and grateful not only for birth control, but also for sterilisation, though, of course, the latter is desirable in much fewer cases than the former.—N. H.

Name of Denomination	Men in "Who's Who" per 100,000 adherents	Estimated children per man	Probable great grandchildren per 1,000 persons
Mormons . .	11	5.3	10,200
United Brethren .	3	3.3	2,320
Lutherans . .	8	3.3	1,950
Evangelicals . .	5	3.0	1,730
Brethren . .	7	2.8	1,600
Reformed . .	13	2.9	1,580
Baptists . . .	16	3.1	1,560
Methodists . .	18	2.9	1,455
Disciples . .	11	2.8	1,450
Christians . .	45	3.1	1,380
Roman Catholics .	7	3.3	1,310
Presbyterians .	62	2.8	1,230
Adventists . .	11	3.0	1,190
Congregationalists	115	2.7	1,125
Unitarians . .	1,185	2.9	1,025
Episcopalians .	156	2.8	910
Friends . . .	31	2.9	855
Jews . . .	20	2.6	755
Universalists . .	390	2.4	500*

Take any class of society that you wish and you will find that religion has very little to do with family size.

The figures given above show, with the curious exception of the Mormons, a difference of only 0.9 in the average number of children of eighteen religious faiths. In other words the difference is less than one child per man, even allowing for the greatest variation.

Another study on a smaller scale, a neighbourhood

* For additional details of this table, see Appendix D, p. 209.

study made by the writer, surveyed a neighbourhood of high middle class and bore out very accurately the results of the table made with Professor Huntington. The figures did not represent all the children that had been born, but only the living children of mothers over forty-five. The average was 2.4 children.

When we come to the low class social elements, other factors indicate that religion seems to make little difference in size of family. The reason is that this class of people is too stupid to comprehend the physiology of reproduction, and too shiftless to bother about learning contraceptive methods.* In many cases, when they do have information, they are too poor to buy good materials, and in some cases too lazy or witless to use these as they have been instructed to. I am convinced that if such people could be sent to a hospital where they could have a good two weeks' rest at public expense, good meals, and all sorts of comforts that they do not have at home, they would welcome sterilisation. Their major troubles would be over.

Case histories can be overdone, but because they illustrate my point so very well, I want to tell you about some families I have known.

As a preface let me recall to your mind that it requires four children to perpetuate a family, and also that the infant mortality rate among slum people is prodigiously high. Now many people feel that even subnormals

* Thirteen years of continuous experience in contraception, both in private practice and at birth-control clinics for the poor, has left me with the impression that the poor are no more stupid and no more shiftless than the rich. The poor may fail more often because the information is less easily available, or because they cannot afford to buy the contraceptive materials, but on the whole I find that it takes less time to teach the use of a vaginal pessary to poor women than to my private patients.—N. H.

should be permitted to have at least two children, to satisfy the parental instinct—though I assure you that most subnormals would consider even two children a little more than enough. But, assuming that subnormal couples were to have two children apiece, the high infant mortality rate among them would force a drop of 50 per cent. in their numbers each generation.

Well, there was that faithful, hard-working woman who did our washing for several years. Left a widow with five young children to rear, she has spent a lifetime of drudgery and hardship, to find herself at sixty a tired old woman entirely dependent on the city for support. Of the three children she has brought up to maturity, only one is a comfort to her; and he has been unemployed so long that he is a liability rather than an asset. On several occasions she has said that if she had it to do over again, with the information about birth-control that she has picked up in recent years she would have only one child. "It's them kids that have kept me poor. Why I was blessed with 'em I don't know."

Another instance is that of a very high-class couple who ought never to have had any children, and have repeatedly told me so. In their case they had had them because at the time they didn't know how to avoid it. They have three children, of whom two are insane and one is normal. The family history proves that the two insane children are unquestionably the products of unfortunate heredity. Even though the chances were only one in four that these fine people would have an insane child, still the odds were against them and they had two. Neither child will ever be any use to society,

and both will be perpetually cared for at the expense of the family. The father has confessed to me that having the one normal daughter has not compensated for the two pathetic, demented sons. He has since been sterilised voluntarily.

And now to go almost to the other extreme, consider for a moment a family in Connecticut. It stands as the best illustration I know of the fact I am trying to bring out: that our degenerates and our producers of degenerates do not want children, but have them because they cannot avoid it. This family is notorious. When the man's first wife died, he sold her body to a medical school for $20. When, years later, after he had remarried, he was asked whether this were true, he replied, "Yes, by God, and I wish I could get that much for this one?"

Children came to "bless" this man's marriages. They were reared in squalor, and every time a new baby arrived there was plenty of trouble in the family. If they had not been assisted there might never have been more than three children, but undiscriminating charity provided royal care for them. The father didn't even have to work, for the town's charity organisation paid the medical bills, confinement costs, food, heat, rent—everything. It was "the life of Riley" for him—that is, so far as freedom from responsibility was concerned. But family life was never serene because of the constant wrangling over his sexual relations with his wife, who was in constant dread of becoming pregnant. But the babies came and *came* and CAME, until there are now nine. When the eighth child was coming the wife threw rocks at her husband, and when the ninth was coming she got

so furious that she went out into the street on a lovely spring morning when the tree department was spraying the elms to kill leaf beetles, and helped herself to a spoonful of arsenate of lead, which she proceeded to stir into her husband's tea. It made him very ill, but that was all.

Certainly after the first child in this family, not one more was wanted by either the father or the mother, and it was a crime against society that more than one was born. A crime, yes, because the children from that couple are of the same calibre as their parents and have made no end of trouble for the town to which they owe their whole support. The girls have spread venereal disease, and the boys have been in mischief time and again.

One night a party of men, including the writer, went coon-hunting. Besides one college professor there were others from a good many walks of life. Something in the course of our conversation led up to a discussion of our sexual problems. I asked the men to tell me exactly what they thought about this question of having children; and, the unanimous opinion was that if a family had one child, any others after that were accidents.

Only one man in the entire group refused to answer then; he said he would give me his opinion privately the next day. This was the college professor, and his answer was highly interesting. He said he thought that the people with whom he associated wanted about four children. This is just what I myself had gathered from observation of that class. I am convinced that the tide

has turned: that we are witnessing another revolution, greater than the economic even, a biological revolution.

In *The Builders of America* Professor Huntington and I published some figures that were the result of a long study of what we concluded was a new trend in society, and during the same year three other investigators (Phillips, Woods, and Lockeman in Germany) issued similar findings. And all these findings are, I believe, valuable straws showing us that the wind has changed and is blowing not ill but good.

If one were to look at the entire population and try to guess the birth-rates by groups on the basis of innate social worth, one might expect to find that those at the top have small families and that as one went down the ladder of social fitness one would find the families increasingly larger. Now, in general, this is what we found—with one exception; and that exception constitutes the most significant fact, I believe, that has been discovered in this field. Instead of finding that our top group had the smallest number of children, we found that they were having considerably more children than were the group just below them. (Part of our study consisted in having college graduates rate their fellows as to success in life, and we were interested to see that their criterion of success was not wealth, that millionaires were often rated among the lowest fifth, while missionaries were placed in the first fifth of the group.) In all we had 2,400 men to study, and when we had completed the tabulation, we found that the predictions of population experts were all awry.

	Per cent married or married but no children	Per cent having 1 or 2 children	Per cent having 3 or more children
(1) Most successful .	4.9	6.1	9.0
(2) Successful . .	5.7	7.4	6.9
(3) Average . .	6.4	7.7	5.9
(4) Relatively unsuccessful . . .	10.0	6.2	3.6
(5) Least successful .	12.3	5.4	2.3

For if we took the men of the top fifth we found that they were more often married, more often had at least one child, and had far more children than the lowest fifth (or any other fifth, for that matter.) When we came to consider any group of intelligent persons, such as ministers, lawyers, physicians, college professors, business men, engineers, etc., the most successful had the largest families, and the trend was downward, with the lowest fifth having the smallest families. (The table appears above.)

This proves that a movement in the right direction has started: instead of wanting one child only, these high-class people whose children are a matter of choice rather than of chance have had more than a single child. Another indication is found in the answers given by a group of college students who were asked to say how many children they believed constituted an ideal family. The majority of the men replied, "One boy and one girl." This was in 1920. The question was asked again two years ago of another and later class of male students, and the reply this time was, "Four—two boys and two girls." And again we are considering a group of highly intelligent young people. Finally, similar evidence is

derivable from the study made by Dr. Florence Brown Sherbon of the University of Kansas, *Adolescent Fantasy as a Determiner of Adult Conduct*. Her findings seem to me quite rich in significance. She asked her freshman girls to define their marriage ideals—the sort of husbands they hoped for, the size of home, the number of children, and so on. Since that time she has been able to watch what is happening to those girls now that they are women, to see whether their hopes have been fulfilled; and she learns that those "adolescent fantasies" have to a considerable extent determined later choices, have at least served as incentives in the choice of mate, of type of home, of size of family. If we may take these findings as at all typical, they prove that our educated children may be at work making a better America. These young people are going to have larger families than their parents had. The wealthier class in general is setting the fashion of having larger families than were customary a generation ago. One elderly social leader told me: "In my day the woman who had only one or two children was considered smart. To-day a well-informed woman may have as many or as few as she wants. To have several children and give them a good start in life is getting to be the smart thing to do." From my own observation I am coming to believe that many of our fine young people to-day are having enough children not only to perpetuate the family but to insure its increase, and I find it a welcome sign of the times. It fits in perfectly with our ideas for a planned society. Anything that we can do to encourage such people to have large families, and anything we can do to prevent large families among

those at the lower end of the social scale—both these ought to be done, for they are of the utmost social value.

All the data above have a direct bearing on sterilisation. The prospect of somewhat larger families among the highest class is encouraging, but it cannot be looked to as an adequate counterpoise to the unchanging increase among subnormals. The differential birth-rate will long stay with us as a grave problem. If—to look at it on one side only, for the moment—our charity burden is mounting, and if those who alone are able to shoulder it are not increasing proportionately with it, then it would seem that the more promptly we take action the better; the sooner we give those who want to help themselves the means to do it with, the happier and certainly the more immediate the effect.

But there is still another inference to be drawn from the situation, especially from what has been said about the favourable tendency of the upper, successful stratum to have families larger than those of the stratum just below them. It shows that there are truly grounds for hope, if not for optimism. It refutes the criticism that sterilisation and birth-control are likely to be the instruments of race suicide. As for contraception, we know that we cannot now take it away: it is an established social practice. As for sterilisation, it must be established as a social practice far more widely than it is now. Remove the pressure exerted by the negative class on the positive classes, and this tendency toward adequate families among the latter will expand until it actuates all the more worth-while groups.

One final word: my use of such terms as *worth while*

and *useful* in connection with various social classes must not be misinterpreted. No scientist interested in racial improvement dreams of insisting that we are to weed out until we have left only the wealthy, or the professional, or the highly intelligent. The eugenic ideal is far from this. It postulates rather a society in which the merchant is a good merchant, the college instructor a good college instructor—and the brick-layer a good brick layer; each capable of supporting himself and his family and worthy to pass on his good character and useful citizenship to his offspring through both heredity and environment. We do not ask that the street-sweeper shall buy bonds or read Greek; we do not ask that he spring from racially adequate germ-plasm, and pass that germ-plasm along to all the little street-sweepers he fathers. The best type in every social class must be encouraged to increase; the worst type—the defective, insane, subnormal, and dependent—must be allowed to die out. That is what sterilisation is for.*

* It is important to stress the necessity for sterilisation of the defective, insane, sub-normal, and dependent in *every* social class. It is just as necessary for a hæmophilic princess to be sterilised as it is for the hæmophilic daughter of a garbage collector. The imbecile son of a duke should be sterilised no less than the imbecile son of a day-labourer. Unless we make this quite clear sterilisation will be opposed, and quite rightly, by the masses as one more repressive measure introduced by the rich to harass the poor.—N. H.

CHAPTER XII

THE OBJECTIONS MOST OFTEN URGED—I

For years I have been listening to objections from various kinds of persons who are opposed to sterilisation. These I have recorded and classified according to the number of times that I hear each. Some of them are simple, terse, and pointed; others are long-winded and verbose. Some have an element of reasonableness; others are of the sort that to the social scientist seem without reason. The sixteen that are most often heard will be dealt with in this and the following chapter.

The main, and most seriously taken objection comes, as would naturally be expected, from the Roman Catholic Church. Its head, Pope Pius XI, has decreed against sterilisation, notably in the encyclical *Casti Connubii* issued in January, 1931. That document is, in general, the expression of an ideal that cannot but appeal strongly to any who are eager for race betterment. More than a majority of its points, I imagine, find general support among biologists and sociologists, as well as among adherents of non-Catholic faiths; though its view of sterilisation can, of course, only encounter considerable dissent.

"*The Family Is Paramount.*" Here is the section of the encyclical that is most pertinent to our subject:

That pernicious practice must be condemned which closely touches upon the natural right of man to enter matrimony but affects also in a real way the welfare of the offspring. For there are some who, over-solicitous for the cause of eugenics, not only give salutary counsel for more certainly procuring the strength and health of the future child—which, indeed, is not contrary to right reason—but put eugenics before aims of a higher order, and by public authority wish to prevent from marrying all those who, even though naturally fit for marriage, they consider, according to the norms and conjectures of their investigations, would, through hereditary transmission, bring forth defective offspring. And more, they wish to legislate to deprive these of that natural faculty by medical action despite their unwillingness; and this they do not propose as an infliction of grave punishment under the authority of the State for a crime committed, nor to prevent future crimes by guilty persons, but against every right and good they wish the civil authority to arrogate to itself a power, over a faculty, which they never had and can never legitimately possess.

Those who act in this way are at fault in losing sight of the fact that the family is more sacred than the State and that men are begotten not for the earth and for time, but for Heaven and eternity. Although often these individuals are to be dissuaded from entering into marriage, certainly it is wrong to brand men with the stigma of crime because they contract marriage, on the ground that, despite the fact that they are in every respect capable of matrimony, they will give birth only to defective children, even though they use all care and diligence.

Public magistrates have no direct right over the bodies of their subjects; therefore, where no crime has taken place and there is no cause present for grave punishment, they can never directly harm, or tamper with the integrity of the body, either

*for the reasons of eugenics or for any other reason. St. Thomas * teaches this when, inquiring whether human judges for the sake of preventing future evils can inflict punishment, he admits that the power indeed exists as regards certain other forms of punishment, but justly and properly denies it as regards the maiming of the body. "No one who is guiltless† may be punished by a human tribunal either by flogging to death, or mutilation or by beating."*

Furthermore, Christian doctrine establishes, and the light of human reason makes it most clear, that private individuals have no power over the members of their bodies [other] than that which pertains to their natural ends; and they are not free to destroy or mutilate their members, or in any other way render themselves unfit for their natural functions, except where no other provision can be made for the good of the whole body.‡

Now any one who has ever undertaken to criticise—or even to comment on—a religious subject knows that, whatever he says, he will find himself construed wrong in some quarters; and the same applies to any attempt to refute a specific ecclesiastical utterance. It is not my purpose in this book to discuss or criticise the position taken by the head of a great faith beyond the point where it touches a scientific argument. With nothing but respect for a viewpoint that is held by millions of right living people throughout the world with no animosity towards Catholics as Catholics, among whom indeed I number some of my best friends, I still urge that this

* Reasonable people in the twentieth century will not have their course of conduct shaped for them either by St. Thomas or by the Pope, but of course the Encyclical is not addressed to reasonable people.—N. H.

† The unbiased critic would say that the unfit parent who insists on propagating children is not guiltless, but is committing a crime against Society.—N. H.

‡ It is strange that the Catholic Church recognises the justifiability of destroying or mutilating an organ for the good of the whole body *of an individual*, but here denies the justifiability of destroying or mutilating an organ for the good of the whole *social* body.—N. H.

question must, if it is to be discussed at all, be treated as a scientific question rather than as a theological or even an ethical one.

The preceding quotation is given because it represents a point of view that, as a result of its pronouncement, must be held by very many of my fellow countrymen. If this viewpoint conflicts with the laws now in force in many of our States and with the belief on the part of many who are not Catholics that these laws are just and necessary, that they were enacted in the interests of public welfare and that more of them should be put in operation, it is the duty of all who believe in such measures to state their belief as clearly and impartially as possible. I refer, of course, to the sterilisation laws that have been passed in a number of States and to which I shall refer in another part of this book. Sterilisation, as its proponents see it, is more than a moral question. It is an economic, a social, a legal, a medical question and in the eyes of many a help toward a higher morality.

The family is paramount? With this we may agree. The family's claims are higher than the State's? With this we need not agree.

The encyclical stresses the importance of the family and every social student will concur in this emphasis. It is the very basis of our social life and its preservation in the highest form is the aim and the ideal of practically every civilised society throughout the entire world.* Proponents of sterilisation believe that there are families *and* families—good ones and bad. The first should, we urge, be

* This view of the family is being questioned more and more to-day.—N. H.

encouraged; the second made impossible in the future. There is nothing inviolable in the bad family. One means towards the discriminatory weeding out of undesirable families is sterilisation.

The family is not paramount. It is an integral part of the great unit which we call the State. Just as the agriculturist works his farm, so the State or family-culturist must cultivate its families by seeing that the better type of individuals are preserved. The farmer goes about his farm continually alert to the need of culturing the best of the living, growing elements. Here is a splendid corn stalk. Its great size and high yield of grain show conclusively that it has been able to do better in a similar environment than many of its neighbours. It is therefore preserved through its seed. Here is a high testing cow. She must be preserved through her posterity. Here is an outstandingly obnoxious weed. It must be destroyed.

There are figs and thistles, grapes and thorns, wheat and tares in human society and the state must practise family culture.

"*Sterilisation Will Prevent the Birth of Genius.*" Another objection that is raised against sterilisation—and against contraception as well—is that it will prevent the birth of genius. When the objection is levelled at contraception there is something to be said for it, since contraception is practised by the sort of parents whose thirteenth child *might* be Benjamin Franklin, the desirable sort of parents.* But there is no rational ground for

* There is, of course, an equal chance that the thirteenth child might be an Adolf Hitler or a Jack the Ripper.—N. H.

the objection in the case of sterilisation since the procedure is urged *only* for the kind who ought not to be the parents of one child, let alone thirteen. Besides, the birth of genius is far more effectually "prevented" by a number of other factors already, taboos that for the most part go unchallenged. Take certain recognised marriage taboos, for instance. Under one of these an unmarried woman is not supposed to have children; yet who can say how many geniuses might not be produced if this taboo could be removed? It is of course preposterous to assume that it would be a wise sociological step or correct ethically for unmarried women to produce children on the chance that some of them might be geniuses.* But if the opponents of sterilisation really want to encourage the birth of genius they might do well to consider this point. Probably the top 1 per cent. of the population produces as much genius as all the other 99 per cent.

Speaking of thirteenth children brings to mind the figures which have been publicised in regard to the chances of survival according to birth rank. These figures have been interpreted in various ways, some of them rightly and some wrongly in my humble estimation. As you will see in inspecting them, the twelfth child has but little chance to survive compared with the first or third. But this entirely leaves out of consideration any approximation of the mentality of the family which

* Some opponents of sterilisation, who believe that the more children there are in a family the more chances there are of producing genius, do actually suggest that celibate priests are acting anti-socially in preventing the possible birth of genius by their celibacy. They usually share our author's caution with regard to the unmarried members of the female sex.—N. H.

to-day produces twelve children, after they have watched one after another of them die.

OF EACH 1000 CHILDREN:

115 die if they are first children.
200 die if they are sixth children.
300 die if they are twelfth children.
395 die if they are fifteenth children.

Probably the fathers and mothers who have had the large families and have reared so few of the children are not those who can be counted on to produce genius. They would probably welcome sterilisation.

Besides, no one is suggesting the sterilisation of the kind of people from whom we may reasonably expect geniuses to be born. The stock from which genius springs is not degenerate, and it is the degenerate whom it is proposed to sterilise. It is admittedly possible (though rare) for genius to be born from insane parentage; it is highly improbable, to put it mildly, for genius to be born from feeble-minded parentage. Great men have risen from unfortunate environments; they have practically never risen from defective germplasm.

That the objectors on this score have little to fear is proved by the studies of Dr. Louis Terman, Dr. Catherine Cox Miles, and Professor Raymond Pearl. Dr. Terman chose for study the thousand most brilliant children in the California schools. Among the facts discovered was this: that 66 per cent. of these children came from fathers who were either professional men or engaged in the higher types of occupation, and that only one child

was the offspring of unskilled labour*—this father being an ambitious man who had moved his family to Berkeley so that the children could go to college, and who had taken a job on a farm in order to build up his health and also to tide him over while he was looking for better work.

Dr. Miles made a study of the three hundred greatest geniuses of history, and found that 80 per cent. of them sprang from professional men and those engaged in the higher occupations, and that only 1 per cent. came from unskilled labour.

Professor Pearl of Johns Hopkins studied the biographies of all persons included in the *Encyclopædia Britannica* important enough to be given each an entire page or more, trying to determine how many of these had sons who were also included in the work. For instance, there were 63 philosophers, of whom only 18 were recorded as having married; but three of the sons from these 18 marriages (a ratio of 6 to 1) got into the Encyclopedia. Or, if we take the whole number of philosophers treated—that is, 60 without sons, 3 with—the ration becomes 21 to 1. Compare either ration with what we find in the population at large: does one son among every 6 (or even 21) fathers get into the *Encyclopædica Britannica*? "Like father, like son." To conclude, I may say that there is as little chance that you can breed genius out of subnormals as that you can breed a *Man o' War* out of a line of Shetland ponies.

* The inferiority of children in the poorer classes may be partly due to the fact that these classes are of poorer stock, but it is important to remember that, however good the stock, the children of the poor suffer from inequality of opportunity. Much of the apparent superiority of the children of the rich is the result of nurture as well as of Nature.—N. H.

"*We Know Too Little as Yet.*" The objection heard next oftenest is that our knowledge of heredity is not yet complete or accurate enough to warrant us in doing much sterilisation, hardly more than a few subjects here and there. To this I reply merely that it isn't so. We have three ways of deciding when sterilisation is indicated. First, it is possible to recognise the great majority of degeneracy-carriers because they commonly exhibit the signs. Second, a study of near kin will help us: if we find that Grandmother and Uncle Rob, Aunt Hattie and Cousin Randolph and Mother's brother Bill were all feeble-minded, it is a safe bet that Mother is a carrier; she inherits the germ-plasm that has shown itself capable of producing a good many feeble-minded out of the few chances that it had to show what it could to. Third, we are able to judge by the first or the second child in a family. If a couple have produced two feeble-minded children, and the index of near kin shows that there has been a lot of feeble-mindedness on both sides, then surely this couple should not be allowed to launch any more children into the world, even though the chances are only one in four that the next child will be feeble-minded. These three criteria give us ample ground on which to set up a sterilisation policy. In any instance in which there might be doubt whether sterilisation is called for, the three could be applied simultaneously. If a family will apply them to its own case it can readily decide whether there ought to be any more children, or for that matter whether the man and his wife ought to have any children at all.

It is characteristic of those who protest that "we

know too little as yet " to urge us also to " wait and see." Another usual corollary is that sterilisation isn't proved to be necessary at the present time. This is a line of argument that we find presented by Dr. J. H. Landman, whose position I should like to discuss here. His book, *Human Sterilisation*,* indicates that he has made use of a valuable contribution to the subject written by Dr. Neil A. Dayton.† The tables in Dr. Dayton's paper show that the *idiots* and the *imbeciles* have so high a death rate that there is but little likelihood of their leaving enough descendants to perpetuate themselves as groups. We learned this also from the California studies. But if Dr. Landman had read Dr. Dayton's work carefully he would have seen that Dr. Dayton says that the *morons* are the ones who do live, and that the death-rate of males and females averages about the same as that of the general population. It has not to my knowledge been suggested by advocates of sterilisation, that the idiots and imbeciles are perpetuating their kind enough to increase as a group. We have already seen that they come predominantly from the moron and the border-line classes. This objection is groundless.

" *There is nothing to worry about—let us wait.*" Another very important objection, but one not so often raised, is that there is not much to worry about. Dr. Landman mentions me as a pessimistic eugenicist because I say that we are breeding from the bottom. But the doctor

* New York, 1932.

† *Mortality in Mental Deficiency over a Fourteen-year Period in Massachusetts.* Proceedings of the American Assn. for the Study of the Feeble-minded, vol. 36, 1931.

forgets that I have offered a remedy, whereas he thinks that nothing much can be done about it. Which of us two, I ask, is the pessimist? He would show that the beliefs and claims of eugenicists are more or less groundless. But he has founded his belief on the studies already dealt with—studies which assumed that feeble-mindedness is a simple Mendelian character. He, like so many others, is an apostle of the god WAIT. "Wait until we know more; science doesn't know enough yet." Every time I hear that objection, I feel like taking my pen and writing: "It isn't that science doesn't know enough. The trouble is that the critic doesn't know how much science really does know."

As a matter of fact, science never really will know all we wish it could demonstrate to us. No matter how much we progress, there will always be those worshippers of WAIT. I can't help quoting Dr. Leonard Darwin in this regard: "To prove that our powers of doing good are limited to certain directions has always appeared to me to be the feeblest of all excuses for neglecting to do such good as is open to us!" *

"*The Wrong Persons Will Get Sterilised.*" In line with the objection that we cannot know who are the right persons to be sterilised is the next: that the wrong persons will have the operation performed on them. Who, we are asked, is going to be selected to pass judgment? The objection reveals, on the part of those who make it, a less than sufficient understanding of the pro-

* In England there is a considerable body of opinion which would not be content to *permit* the sterilisation of the sub-normal only, but stresses the right of the normal individual to submit to voluntary sterilisation for medical, eugenic, economic, or social reasons.—N. H.

cedure now followed in the States in which sterilisation is already authorised by law. They raise in their minds a bugaboo that has not and never could have any real existence: the visions of some beautiful and cultivated woman, say, who somehow has incurred the malice of a person of influence, and who now stands before the bench of yet another vindictive and powerful authority who is empowered to say whether or not her line may go on. But nobody who knows anything about the subject dreams of setting up any legal procedure in which a risk like this could arise. It is proposed to authorise and permit the sterilisation of the subnormal *only*, and—as has often been said—"You can tell *them* walking down the street." You can. The feeble-minded shuffle along, looking half-dead a good deal of the time, wearing the expression of lethargic despair that we visualise when we read *The Man with the Hoe*. A few of them are content, as animals are content; a few are even cheerful, and able to do elementary tasks; but even these for the most part can be identified positively through mental tests and observation.

Should sterilisation ever become compulsory, there will be practically no chance even then for the wrong person to get sterilised. A committee of experts would examine any person whom it was proposed to sterilise, and geneticists would pass on the desirability of his being allowed to reproduce; and the ultimate decision would in practically all cases be as fair and as certain as any human decision can ever be.* There would, of course,

* We have to be satisfied with human decisions in the matter of capital punishment, imprisonment, and certification of lunatics. And in civilised countries

be doubtful cases, and these would be given the benefit of the doubt. The only persons actually sterilised would be those about whom there has been no difficulty in deciding.

"*The Sterilising Power Would Be Abused.*" Here is another bugaboo: there would be times when the power would be abused. Well, there *might*. But when one admits this, one is admitting merely something that characterises every aspect of the police power of the State. Authority of any kind is abused, often, but this does not deter the body politic from vesting authority in certain officials whose job is the administration of measures that in themselves are right. In anticipation of this very danger, a part of the sterilisation programme is the setting-up of a series of checks, such as we have already seen at work in Carrie Buck's case and that of our hypothetical Mary in Idaho. Anyhow, what would happen to the official who took advantage of his authority to order sterilisation for somebody who didn't need it? Public attack would be prompt, and from high enough quarters to assure him the loss of his prestige and perhaps even of his job itself. Besides, the only persons who ought to be given this power of decision are scientists* —trained to arrive at judgments without fear or favour.

the safeguards surrounding these decisions preclude the possibility of injustice except in the rarest instances. Under certain circumstances, however—for instance, in Soviet Russia or Nazi Germany—ordinary standards are cast aside, and capital punishment, imprisonment or sterilisation are used as political weapons. This thought makes one hesitate to legislate for compulsory sterilisation.—N. H.

* Unfortunately, experience of Nazi Germany has shown that scientists are no more to be trusted to remain fair and impartial under certain political conditions than anybody else.—N. H.

Scientists take their work seriously; anybody who has had any scientists among his friends will bear witness to this. And scientists are not going to risk making mistakes.

But what if they do? Suppose that once in a while they do fall into error. Ah, it is here that our existing laws have proved to be so wise. Before the operation can be carried out, the patient has the full opportunity to present his case in court. All sorts of safeguards are thrown about him, as we saw in the Buck case. Already we have a good many scientific men whom we can trust, and the more sterilisations there are in the future, the greater will be our proportion of high-grade men. As you lop off stupidity and insanity you automatically increase the proportion of ability.

Finally: we are willing to trust human lives to our courts in the matter of capital punishment; why not, then, in something far less serious? Certainly an error in a sterilisation order is less repugnant to our notions of justice than the execution of an innocent man, a chance that we all face without getting excited.

"*Sterilisation Will Increase Immorality.*" This objection stands sixth on my list, in the order of frequency. Well, one can easily see how a man who has been sterilised might, now that he is rid of the need for caution, tend to become sexually promiscuous. But among the men of my acquaintance who have had the operation I know of none who has been affected in this way. Anyhow, isn't it a pretty shameful assumption that the only reason why men ever refrain from wrongdoing is that they are afraid of its consequences? That we would all of us rush

into infractions of all the Commandments if we weren't afraid of being punished? That there are no other, nobler motives for behaving ourselves decently?

Besides, there are already available to the promiscuously-inclined so many effective contraceptive methods that I doubt whether this "danger" is any very new one. Yet I would not deny that the objection has some weight.* There is a possibility, of course, that in some direction immorality will increase following on sterilisation. Take, for instance, the feeble-minded girl on the records of a certain Massachusetts institution, who had been given her freedom eight times and each time had come back to present the institution with another baby, as subnormal as herself. Eventually the authorities got tired of rearing small imbeciles for this girl and decided to commit her permanently until after her menopause. Now suppose that, instead, she had been sterilised, and knew it. She didn't really want a single one of those babies. Which ought we to consider the more immoral—bringing into the world eight children of defective parentage, returning home for several months in between and having promiscuous intercourse, or staying at home all the time, working at some simple task, having promiscuous intercourse whenever she wants to, but having no children as the result of it?

It seems to me that the latter is immeasurably preferable, *even though the total amount of her promiscuity should become greater.*

* There are some persons who would willingly admit that contraception and sterilisation facilitate extra-marital intercourse, but would regard this as an additional argument in favour of contraception and sterilisation. The author evidently takes the orthodox view of "immorality."—N. H.

One point that few objectors think of in this connection is that the woman by herself cannot be "promiscuous." The men who are her partners must also be borne in mind: if they are the kind who indulge in that sort of thing, then the mere fact that the girl has been sent away to an institution is not going to discourage them. Whereas, if that girl were sterilised she might make a good wife for some man who would be delighted that she *was* sterile. Some persons go on to say that, being at liberty, this girl would spread venereal disease; but I believe that if we were able to survey a thousand such cases and tabulate their subsequent behaviour, we should find that actually so many of them have married that this menace has been materially limited.

But suppose we grant that with some persons the knowledge that they were sterile *would* lead them into immorality; we should have to remember that there is always something on the wrong side of the ledger in every worth-while social agency. If we could tabulate and describe the immorality that can be traced directly to the automobile, we might be astonished. The automobile has unquestionably led to a great increase in crime by making it easier and safer; it has offered new opportunities to certain types of sexual immorality; it has led many people to spend money that they couldn't afford to spend. Isn't all this "increasing immorality"? But does that mean that we ought to scrap all the motor-cars? Of course not; they have too much to their credit on the right side of the ledger. With every novelty introduced into life, we have to balance its good effects against its bad ones; and in

sterilisation I believe the balance to be on the side of the good.

"*The Sterilised Will Be Exploited.*" Objectors say that the low-grade feeble-minded girl will continually be taken advantage of if she is sterilised and given her liberty. But they forget that the *low-grade* feeble-minded are *not* to be "given their liberty"; because they cannot cope with the normal world, they must be kept housed continuously. For such, sterilisation is hardly worth while because it is not called for. But it is called for in the case of most of the feeble-minded living outside of institutions—in private homes, on farms, and so on—and in the situation these are in at present there is (under existing conditions) exactly the danger feared: they *are* taken advantage of, and with disastrous results *which would be avoided if they were sterilised.*

"*Gland Treatment Will Serve Just as Well.*" We ought not to sterilise, so I am often told, because if we wait a few years so much progress will have been made in gland treatment that we can remedy by injections of hormones and their derivatives. Many intelligent people have brought this point forward; but it represents a negative medical view. The fallacy gave considerable trouble, I recall, in the "Fitter Family" contests instituted by the American Eugenics Society in order to stimulate interest in family and heredity. Numerous families competed for the honour of being adjudged the "best." First of all there were rounded up a large staff of doctors, dentists, psychologists, public health

officials, nurses, and so forth. Then we had each member of the competing families examined are carefully as possible. Well, in nearly every case the persons whom we found we ought to educate were the doctor and the dentist! What we were looking for, of course, was high physical and mental qualities; but if a woman had had a breast amputated and the scar showed that the surgeon had done a fine operation, our examining physician was likely to give her a perfect sore. The same with the dentist, who rejoiced when he found a person with an entire set of false teeth. He would examine the plate and, if the work had been done beautifully and skilfully, if it fitted the mouth perfectly, he would put down 100 for the teeth score—whereas he should have awarded a goose-egg. Fortunately this medical attitude is changing.

It is only short-sighted medical opinion that looks towards cures and treatments rather than towards prevention. The really fine body is the one that does not require medical care. Our ideal to-day is prevention, and those who advocate sterilisation are looking towards prevention. To these persons, the very thought of administering daily or weekly hypodermic injections to keep the subject from insanity or feeble-mindedness is repellent. If you know any diabetic person who from childhood onward has had to have periodic injections of insulin, you realise what a task it gets to be before long. To elderly persons, of course, whose need for the treatment comes on in later life, insulin injections are a godsend. But to bring babies into the world condemned to the gland-treatment regimen for some defect

is unthinkable, especially since it is quite possible to avoid giving life to them at all. Once the baby arrives, give him the necessary treatment, by all means; but in Heaven's name let's not bring him into the world knowing that he is going to need it! The Rev. George Reid Andrews expressed this ideal succinctly in a sermon: "We should insist that the *production* of babies be at least as carefully guarded as their *preservation*." If we begin thinking about production a little more, and think about it in connection with the after-care that certain types of children will inevitably need, we shall be approaching the time when every person interested in race betterment will be satisfied. That time cannot come too soon.

"*Sterilisation Is Class Legislation.*" * The United States Constitution forbids class legislation, and we are told that what we are urging is class legislation. So it is, in a sense; but not in the sense that the Fathers of the Constitution had in mind. They were not thinking of "class" in its biological sense; they meant religious and political class—the Methodists, the poor, farmers, Democrats. But in every one of these classes we find degenerates, who may be said to constitute a class only in an arbitrary sense. This is a class determined by mental and emotional level. That sterilisation laws are not "class legislation" in the forbidden sense was settled by the Supreme Court in Carrie Buck's case. Had they been this, the case would hardly have been settled as it was, and almost unanimously.

Suppose, however, that sterilisation laws are "class

* See footnote, p. 128.

legislation." What of it? We already have plenty of " class legislation " of this kind. We vaccinate a " class " of children—those who have not been vaccinated before. We legislate to move a " class "—slum-dwellers—out of their bad environment and into a good one, building decent homes for them to live in. Many an approved social activity to-day could be called " class legislation," and yet we wouldn't dream of abolishing it.*

* In England it is frequently objected that sterilisation of diseased and defective persons alone would have little eugenic value even if their diseases are demonstrably hereditary, because, unless we sterilise their uncles and aunts, their brothers and sisters, who may not themselves be obviously tainted, but who are carriers of the taint, it will be impossible ever to stamp out the taint entirely. This argument seems to me to be a poor one. It is as though a population, depending on a river for water supply, and finding the water supply polluted, were to refuse to remove each source of pollution as they discovered it, because there were other sources of pollution still undiscovered.—N. H.

CHAPTER XIII

THE OBJECTIONS MOST OFTEN URGED—II

Some of the opponents of sterilisation express their fears that after birth control and sterilisation, or perhaps in connection with it, there will come the lethal chamber, and that the outlook is a black one for mentally deficient persons. In the place of sterilisation they suggest instead that defectives be maintained in institutions until they have become trained, and then be turned out and allowed to marry and reproduce. At least one book has been written expressing these fears.

Will sterilisation laws lead straight to legislation establishing the practice of "euthanasia"? That idea has not been without its advocates among estimable members of society. In any case, I never heard or read a single statement from any proponent of sterilisation that suggested the lethal chamber as the next social amenity; though perhaps what the writer means is that, once a law is put through empowering certain people to make other people sterile, the way will open broad and easy to further laws empowering them to make other people die.

It is somewhat difficult to take this objection seriously

in view of the agitation against the death penalty and in view of compulsory insurance, medical laws and the present day agitation against war. A great many indications show that as social consciousness increases, respect for human life grows with it. Furthermore, from any but the most ultra conservative point of view it is distinctly arguable whether sterilisation could be called tampering with human life and whether we owe the coming of subnormal babies to any one but ourselves. It emanates from intelligent people by the thousand, none the less. "God sent these poor unfortunates, and it is our duty to take care of them." Is this, one may ask, supposed to imply also allowing them to grow up and bear other unfortunates like themselves? Isn't our "duty" to them satisfactorily fulfilled when we pour out the public funds, and dip down into our pockets to swell charitable funds, in order to keep these subnormal people alive and comfortable? Is there any failure to "care for" them in the mere act of making sure that they cannot reproduce? For this is all that the sterilisation advocates propose.

These objectors often go on to say that it is "natural" for these subnormals to exist in human society; that it would be "unnatural" to try to reduce their numbers gradually. Such an argument proves a sad ignorance of the ways of Nature, for if there is one thing evident in the natural world it is the tendency for those creatures that are too feeble for self-support to die off. Go into the woods, where civilisation has not yet interfered with Nature, and try to find some defectives. You will find an albino animal here and there, and a few that are

struggling along with some other slight defect that is bound eventually to defeat them in the fight for existence; but you will find that these animals, born with traits that unfit them for survival, seldom live long enough to reproduce. Nature, who seems cruel in this respect, is really kind. But she is kind in her own "natural" way, not in our artificial human way: she lets these defectives die off, not go on living and producing other defectives. If an imperfect bird or rabbit is born, it dies. If an imperfect child is born, we hesitate at anything so "unnatural" as preventing its reproduction. In Nature, the defect ends with its victim. In civilisation, the defect is allowed to multiply itself a hundredfold even unto the third and fourth generation. Yet some of us believe, with Justice Holmes, that "three generations of imbeciles is enough." And I may allow Charles Darwin to say the final word on this question of naturalness. "The war of Nature is not incessant, no fear is felt, death is generally prompt, and the happy and the healthy survive and multiply."

Since the "unnatural" objection is often raised by persons with conservative ideas on the subject, I may here cite two comments that have reached me from the opposite schools of thought. I met a young friend who had seen something which shocked him greatly. He told me about a family of six children that he had recently run across, every one of them blind. He protested, "Such a thing should not be allowed to happen!" And I agreed. Nor would it have happened if there were a law permitting sterilisation to any who apply for it.

The next story representing the other side of the

question comes to me from a woman acquaintance. To a friend one day she read aloud a newspaper story from a New Jersey city that shocked her profoundly. The friend, however, was not shocked. She was a woman of the most highly intelligent sort, daughter of one of our most distinguished artists, but strongly bound by the teachings by which she had been brought up. The item reported that a New Jersey woman had just borne her sixteenth child in sixteen years—and not one of the earlier fifteen babies had lived to the time of the next one's birth. My friend commented: "How much better if that woman had spaced her babies, had only four, say, and brought them all up to useful maturity!" "Not at all," was her opponent's retort; "she has done her duty in bringing sixteen little souls into the world, whether they lived or not. Her duty is not the bearing of a few who may grow up to be good citizens; it is the bearing of many—as many as possible—to become immortal souls." *

Here and on the previous page are two clear illustrations of conflicting points of view by equally conscientious and scrupulous persons. The advocate of sterilisation would say regarding the last case that here not even contraception, probably, would secure good social ends, if the heredity or the environment represented by that mother was such that apparently none of her babies was viable; that rather the case called for sterilisation.

* The Catholic position seems to me quite logical. If you believe that there is a future life, and that it is immeasurably longer and more important than this life on earth, then it is quite logical to sacrifice the less for the greater. I can never understand how professing Christians can take any other view.—N. H.

"*Our Existing Laws Are Not Being Used.*" Sterilisation, it is sometimes argued, would be impracticable even if we succeeded in legalising it all over the country, because many of the States that have laws already do not enforce them—proving that public sentiment in those localities is actually opposed to the procedure. I have already discussed the reasons for the occasional lapses in administering the law; they are not sentimental—they are political. Many a superintendent of a State institution would like to resort to the operation oftener than he dares to do under existing conditions; if he descries in the middle distance a political or religious bloc that is opposed to the law, he is naturally likely to watch his job. And this sort of thing will always go on, probably, more or less, man being a political animal. My own opinion is that it is bound to go on, anyway, wherever the law is a compulsory one.

"*Segregation Will Serve as Well.*" Some of those who consider sterilisation uncalled for do so because they feel that we should gain the desired ends equally well by establishing segregation colonies in which mental defectives could be kept all their lives. It is not an unworthy suggestion, and in an earlier day than ours has been practicable. But it is out of the question by now. The initial expense would be staggering, however justified in the end. To make it at all possible, we should have to try to get enough productive labour out of the inmates to pay a part of their maintenance, and this would bring a terrific howl from organised labour, the same

kind of howl that rises whenever the State undertakes to sell prison-made articles on the open market.

But the decisive reply to this objection is that while segregation is excellent and we need more of it, it does not meet the real danger. The real danger lies, as we have seen, in the border-line group, and there are too many of these to segregate. If we could place about 10,000,000 in segregation camps the plan might be worth a trial. But immediately comes another thought: Wouldn't this vast army want to have their wives and husbands living with them? Imagine erecting colonies, separating families, and keeping such people satisfied with their lot! The only alternative would be to establish colonies, sterilise one of each couple, and let them live together without the constant risk of unwanted babies.

But why, in that case, establish colonies at all? From the viewpoint of a planned society, it would be equally feasible and far more advantageous to allow the border-liners to live in places where they could do some useful labour, have perhaps one or two children, and then be given the means of stopping at that point. Society would thus gradually dispose of them.

"*Sterilisation is Injustice.*" Is it unjust to sterilise, as some argue? I believe that I have shown that there is no injustice in it. The State may compel the individual to do a good many things that make him feel unjustly treated, the principle being that his rights are subordinate to those of the body politic when the aim is the public welfare. The drunken driver objects when he is

arrested—he "has a right to get drunk." The insane criminal objects to a gaol sentence, because he "hasn't done anything wrong." And many a mother objected (rightly, in my opinion) to having her boy conscripted and sent to France. But the State argues that all these measures are designed for its safety.

Even so, the sterilisation of a defective, especially one who has asked that it be done, is not an injustice. The Supreme Court decision voiced the answer to this objection very well in the opinion written by Mr. Justice Holmes: "We have seen more than once that the public welfare may call upon the best citizens for their lives. It would be strange if it could not call upon those who already sap the strength of the State for these lesser sacrifices, often not felt to be such by those concerned, in order to prevent our being swamped with incompetence."

"*We Need Morons for the Ugly Jobs.*" Some really thoughtful people have objected to sterilisation on the ground that it will cut off from society a large body of persons whom we need to do our dirty work. They do not always put it so brutally as that, but in effect that is what they mean. The best answer I know is that if we did not have the people to do the ugly jobs, we would find some way to abolish the jobs. Necessity is here the mother of non-invention.

I can remember many dirty jobs that I had to do, years ago, when I was a farmer. They were the same jobs my ancestors had had to do, none of whom—so far as I can ascertain by a careful family study—were feeble-

minded. The toilet facilities, in my day as in theirs, were in the backyard, and sometimes I had to clean the cesspool—a job that I would cheerfully have deputed to somebody else. I milked a string of cows by hand. All our farmwork was done with horses. In winter when my wife and I drove to town the snow was driven into our faces from the flying heels of the horse hitched to our sleigh. We butchered our own animals, and Mrs. Whitney often tried out the gut lard. We had no electricity, no city gas.

To-day, what a contrast! We still live in the country, but under very different conditions. Milk extracted by mechanical milkers, is delivered to our door. We boast a septic tank, and our plumbing is inside the house. We ride in an automobile or a trolley car. We buy meat that has been butchered in mechanised factories quite unlike the old-fashioned slaughter-houses. Running water is pumped from a deep well by an automatic pump. Canned gas is delivered. In short, we have all the comforts of the city.

Twenty years ago it would have seemed very fine to me to have a moron around, to do all those ugly jobs for me. But to-day they are done by methods which no longer require the services of that moron. They are no longer "dirty work" because people have bent their inventive intelligence to their needs, perfecting devices that to a great extent eliminate the unpleasant phases of certain jobs. The more inventions we human beings think up, the less we need the moron.

There is an ethical consideration here, too, which appeals to me. When people say that we need morons

to do our dirty work, they seem to forget that they are talking about *human beings*, that they are deliberately degrading their fellow-men to the category of the slave or the mule. In the South they used to say that slaves were needed for the menial labour. But hasn't that day passed? Let us hope so. Work of any kind is becoming less and less degrading. Time was when working in the woods, for instance, was not particularly inspiring. But to-day with modern methods of lumbering it requires brains to do this work, and under these conditions many intelligent people have learned that there is no more healthful or exhilarating labour to be found. The truth is that what dirty work there is left in the world will become clean work just as soon as intelligent people do it.*

"*Sterilisation is Mutilation.*" Then we hear it said that the State has no right to "mutilate" the body of any of its individuals. But it does have that right. It has the right to compel vaccination, which leaves a scar far more apparent and objectionable than the scar left from either vasectomy or salpingectomy. And if the individual has a contagious disease, he may be isolated by the State's orders. If he commits a crime, he may be put to death by the State. If he commits a nuisance, he may be incarcerated. If he goes about in a filthy

* Many civilised countries have no hesitation in conscripting their men for military service in time of war, and even for military service in time of peace. There seems no good reason why both women and men should not be conscripted for social services, including what our author calls "dirty work" of a non-military nature too. If everybody had to take his or her share in the dirty work the proportion of a lifetime that each person would have to devote to it would be small and easily borne.—N. H.

condition, he may be forced to cleanse himself. If he has a job that involves serving food publicly, he may be regularly examined by a physician to make sure that he will not communicate disease to innocent people. The fact is that a degenerate is exactly as great a menace to society as any of these, and far worse than some of them; and he should not be allowed to produce offspring who may be like himself.

"*Religion Calls It Immoral.*" The objection is raised by some that religion dictates against sterilisation on the ground that it is immoral. Now it might be possible, if we were to hunt far enough among the writings of the Church Fathers and the Calvinistic theologians, to find some passage directed against it—though it is doubtful whether any of them could have had in mind the processes that to-day we mean by sterilisation. On the other hand, if we were to search the Bible*—which, after all, is an acknowledged authority among all faiths worth considering in this regard—what we should find instead is hundreds of passages that urge the upbuilding of the human stock. The Jews have always held racial purity and excellence above nearly everything else. Their taboos against marriage with inferior peoples and with Gentiles were equally strong. They are, indeed, an inspiration to other races in this respect.

The Talmud, even more than the Bible, continually preaches race purity and family upbuilding. "Let a man sell all he has and marry the daughter of a learned

* It is surely unnecessary to rely on the Bible for arguments in favour of a proposal which is easily supportable on rational grounds.—N. H.

man of the time. If he cannot find the daughter of a learned man of the time, let him marry the daughter of the head of a congregation. If he cannot find the daughter of the head of a congregation, let him marry the daughter of an almoner. But let him not marry the daughter of the unlearned, because their wives are vermin and of their daughters it is said 'cursed is he who lieth with a beast.'"

It seems to me that the practice of citing ancient and superseded authorities to prove our theories ought to be dropped in this era of science. What an enormous amount of tragedy this has caused! Take the attitude of religion on the use of anæsthesia in the middle of the nineteenth century. That controversy was a bitter as is ours to-day over contraception and sterilisation. The clergy long held out against anæsthesia, citing authorities who said that it is immoral not to let a person suffer, particularly a woman in labour. In the third chapter of Genesis, for instance, they found: "In sorrow thou shalt bring forth children." Conclusive: God intended that women should endure unmitigated agonies forever because Eve ate the apple. Then along came some physician who found, in the *second* chapter of Genesis, this effective come-back: "And the Lord God caused a deep sleep to fall upon the man"—this being in preparation for the creation of Eve from one of Adam's ribs. Equally conclusive: God Himself had resorted to anæsthesia; it was therefore all right for man to do it. All of which sounds either highly ridiculous or distressingly blasphemous; yet it is exactly what happened in the days of the dear Queen. And to-day, very few

of even the most conservative religious folk wish to lift their voices against the use of anæsthetics. It is no longer "moral" to make people suffer unnecessarily.

CHAPTER XIV

THE WRONG SIDE OF THE LEDGER

Back in the days when we drove those old Model-T Fords, the magazines were full of advertisements of gadgets guaranteed to save petrol. I remember buying a carburettor that was guaranteed to add a third to my petrol mileage. I bought, too, some hot-shot spark-plug arrangements that were guaranteed to get at least six miles more out of every gallon of petrol. I have concluded since then that neither of these things ever made any difference. There were a myriad other contraptions advertised, too, each of them guaranteed to increase my petrol mileage. So one day I added a lot of these "guarantees" together, and behold, if I had bought the things I could have run on no petrol at all!

We have heard recently that the annual crime bill in America is from ten to sixteen billions of dollars. And here we are worrying about a paltry Treasury deficit of nine billion! We are told also that, if every man in the United States were to drink a glass of beer a day, the nation would be inefficient to the extent of six billion dollars a year. Noise, too, is said to cost us several millions a year in lost of efficiency. Common colds cost more millions. Toothaches, headaches, athlete's foot,

excess use of cosmetics, rheumatism, halitosis, and sundry others add still more to our national losses.

Now if you were to add all these things together you would realise that in no time at all you have accounted for about three times the national income of fifty billions, and that if we could actually make these savings there would be no need for any of us to work. In fact, we could be well paid for going to sleep and staying asleep, just as the old Model-T Fords could be made to run on less than no petrol if you just bought all the petrol-saving gadgets.

I realise that the burden of our subnormals is perfectly tremendous. The bill probably does run into the billions if we consider the cost of the crime, the pauperism, the institutional care, and the other burdens that spring from that source. But I have no intention of adding any more figures to the billions cited above. Rather I shall attack the problem in what seems to me to be the logical way.

Every time a degenerate is born, somebody has to support him or her. It may be a private individual who has to be made unhappy by the entrance of the newcomer into the world. It may be a public institution. Moreover, some one must pay when the subnormal does something unsportsmanlike—breaks the rules we have set up for the game of living. On the whole, the subnormals are very poor sports. When a burglar broke into our home during my boyhood and stole all my parents' silver, which had been given them as a wedding present, he did more than remove some valuable knives, forks and spoons: he left a lot of heartache behind—

more than the silver was worth; and we have no way of evaluating such unhappiness. Every time the Community Chest of your city pays for a ton of coal, every time the Charity Department of your State pays for the food and care of an insane person, you, too, pay out something.

And all the time that the money is going out, our degenerates are demanding more, with no prospect of return. Now, if you were the owner of a stock farm and had a herd of cattle, you would say that you had money invested in the cattle. They represent, however, an investment that you are trying to make pay you something. Of course, if you are a so-called gentleman farmer the herd may not be paying you any income. Yet the money would still be an investment, because you could sell them any time—you could realise on them. Every time a calf is born, you add that value to your inventory, and your inventory represents your capital outlay.

Very well. Just what difference, from an economic viewpoint, is there between your investment in cattle, which cost you plenty to feed, and the problem that society has in its degenerates? I have never heard any one discuss our degenerate classes as an investment, but what else is it? Every time a new subnormal is born, we may say that we have tied up a certain sum of money in that person. Looking at it another way, we shall have to deposit in the bank a sum of money large enough to yield sufficient interest to support that subnormal for a year.

If we consider only the feeble-minded who are in

institutions, it has been calculated again and again that it costs at least a dollar a day to feed and clothe one of them. It costs a great deal besides this to take care of them, of course, since board and clothing are not their only needs. But suppose that we first consider the food-and-clothes cost—$365 a year per capita. How much money at 5 per cent. would we have to deposit in order to produce $365? $7,300. But, as I have said, that isn't all. How much does it cost to build and equip an establishment that will house, say, 1,000 feeble-minded persons adequately? Surely a million dollars, the way it is done to-day. Add another $1,000 to each person for that. And there, you might say, without considering the cost of the overseers, the superintendent, the nurses, the doctors and staff to look after the inmates—there you have $8,300. So is it not fair to say that every time a feeble-minded child is born we at once invest $8,300 in it?

And now if we add all other costs to that figure—cost to parents, payment for damage done, etc.—we should reach a total of at least $10,000. Besides these institutional figures we must take into our reckoning the 80,000 feeble-minded persons in subnormal schools. Adding the costs of these brings our total up to $800,000,000. All this leaves out of consideration those who are outside of institutions and schools—the insane, the epileptic, and so forth. If our crime bill actually is ten billion dollars, if it has to be paid every year, we have an investment in criminal degenerates of two hundred billions, the principal necessary to yield ten billions.

In New Haven in 1933 we spent over $3,000,000 on relief. In normal years our burden is only about $500,000. But it is only fair to throw off half of the larger sum on account of the unfortunates whose plight is due to economic maladjustment rather than to biological degeneracy.

In 1915, when Dr. Estabrook finished studying the Jukes tribe, he made a calculation of official expenses which the State of New York had been called upon to meet in behalf of this family. Of course, only the expenses that had been recorded as official could be traced, and naturally not all of these. But, doing the best that he could, Doctor Estabrook recorded over $2,000,000. This did not take into account any of the property damage caused by various members of the family. It did not take into account the time spent by various charity workers who made hundreds of visits to them, nor did it cover the misery that the family caused. Nor, finally, did it cover the misery they themselves suffered.

It might have cost the State of New Yotk possibly a thousand dollars at the maximum to have sterilised the first of that clan. Now, if we compute the money spent by the State the first year, it was doubtless trivial; so also for the second, and the third, and up to the end of the second generation. But it began to grow, then, because the Jukes grew in numbers. When the latest official check-up of the tribe was made, there were over 600 then living, and only seven of them were confined in institutions.

Mental and other tests show us that the greater part

of the clan is subnormal, not sufficiently so to be confined, but subnormal enough to be incapable of doing anywhere near so much productive labour as normal citizens, and so incapable and troublesome as to be a perpetual care to the State.

Let us see if the figure of $10,000 which we said had to be placed in the bank for every degenerate born holds in this case where a family is outside of an institution. Probably not over half of the present 600 Jukes who are at liberty are of the lower grades. I have met a number of them who were well qualified to hoe their own row in the world, but capable none the less of transmitting degeneracy. If 300 are of the potential calibre we are considering, then we might say that the State has invested in them 300 times $10,000, or $3,000,000. Five per cent. interest on this amount would be $150,000 a year, which is what they should be costing the State; as a matter of fact, the average over the past years, taken in proportion to their numbers, somewhat exceeds this figure. I think, therefore, that whether the subnormal individual is in an institution or out of it, we are safe in assuming that we have $10,000 tied up in each. If he is outside, the State has court costs, police costs, and charity costs; if he is inside, the State has the cost of food and maintenance, plus the investment in buildings and equipment. The subnormal are expensive luxuries, wherever they are.

In fact, such people are expensive more or less in proportion as their intelligence falls below the level of ordinary usefulness. They are below this level if they suffer from a degree of incomplete mental or emotional

development, rendering them incapable of independent social adaptation, and necessitating external care, supervision, and control.

The sums spent by the several States on relief during the depression do not, of course, accurately reflect the cost of defectives.

Let us therefore go back to 1915 to get statistics less distorted. In that year the States of the Union spent a total slightly exceeding $75,000,000 for the institutionalised defectives. This is interest on a billion and a half. They are spending more to-day.

When we include criminal classes we find a very different story. New York State alone appropriated for the fiscal year ending June 30th, 1928, $32,558,000 for the care of the feeble-minded, insane, criminalistic,* blind, deaf, paupers, and other institutionalised and socially aided classes. This was exclusive of private charity, which was probably several times that amount. This represents an investment in these classes of $651,160,000.

In New York State one person out of every 25 during a generation becomes an inmate of an asylum or a residence for mental defectives. One family in seven is represented. Then, too, it must be remembered that there are several times as many insane persons outside of institutions, who are never admitted owing to the desire of the family to maintain them at home. All this signifies that the population of that great State is not so sound mentally as it should be.

Dr. H. M. Pollack, who for many years was the

* Here is the vague conception "criminalistic" turning up again. See previous footnotes.—N. H.

Statistician for the Mental Hygiene Society, made an interesting estimate. Considering the 300,000 persons in institutions for mental disease, he determined to discover as nearly as possible what was lost to these individuals in the way of earning capacity. After a careful study he concluded that the average amount these people might have earned during the rest of their lives, had they not been deprived of their liberty, was $6,000 each. Thus the 80,000 committed each year meant an economic loss (above what we have already figured) of $480,000,000. This, taken with the annual amount spent on the maintenance of the 300,000 ($150,000,000), represents a staggering total.

Look at it in whatever way you please, you come to the conclusion that from a financial point of view degeneracy costs a great deal of money. But to me, even that does not represent so enormous an expenditure as does the misery to the people themselves which degeneracy entails.

Here we have considered only mental disease and mental deficiency. What about the inherited deafness, epilepsy, blindness, chorea, and other maladies? Some are more serious than those we have considered, but they are not so prevalent, and we can ignore them.

Civilisation is becoming more and more complicated. Sounder brains are constantly being demanded to cope with modern conditions. That quality which is best described as adaptability, one of the most important human character requirements, is seriously lacking when so many people in a State become insane. Yet it is just that quality which is needed to render one adjustable

and thus secure in the face of our rapidly changing civilisation. It is becoming too rare.

Figures speak louder than words to some people, though to some of us they prove boring. Enough has been said already to show that our degenerates now constitute an appalling investment, and there is no doubt whatever that the investment is growing.

Frightful though this financial situation is, I believe that it is not so grave as other aspects of the problem. What does it mean for the more intelligent of us that, for instance, all appeals to the public have to be written down to a low level, have to be cast so as to reach the 13-year-old mind? Agencies such as the newspapers and the moving pictures have to earn money to be able to stay in business. To earn money they must make their films or edit their papers in such a way that these will sell. And to make them sell they have to calculate the average intelligence of their market.

The most successful producers know that the average movie fan or newspaper reader is about 13 years old. To make sure that their pictures and newspapers can be understood, they could almost select a group of seventh-grade pupils and try out their productions on them. If these proved to be over the heads of such children, they would be over the heads of half the population!

Of course, certain moving pictures are made with the upper half in mind—pictures that appeal to the reason and the higher emotions, pictures not so cheap and tawdry. Sometimes these make money. One thing, however, seems never to occur to the producers: if this were the *only* kind produced, then the lower half would

go to see these instead; whereas the upper half refuses to go to see most of the junk.

Then, too, there are "class" newspapers—the Tabloids,* for instance, which obviously are written for the lower half. A tabloid editor knows that this group can read pictures if they can't read print; so he concentrates on the pictures and makes the text so simple that any child who has just learned to read can understand it easily. Moreover, the tabloid editor bases his appeal chiefly on sex and the emotions, which in the scale of evolution are of course much older than reasoning ability.

Civilisation has to keep continually in mind the lowest quarter and the lower half. These we shall always have with us. But let us hope that the "lowest quarter" in the future will not be on so low a level of intelligence as it is to-day. We have much more than a mere financial problem. We have the shame of this degradation of everything decent in life, pulled downwards to meet the understanding of the subnormal. And finally we carry the burden of the unhappiness caused by the childish conduct of the unintelligent and by the depredations of the ill-trained and emotionally unbalanced. The cost of crime is higher than any official figures reveal. Heart-aches are not measurable in dollars.

* For the benefit of the uninstructed Englishman it should perhaps be explained that a tabloid is a newspaper which depends more on pictures than on letterpress for imparting its news to its readers. I imagine that the word "tabloid" is used to describe such papers because what news they do offer is very much compressed, and a great deal of the gist of the news can be gathered from merely reading the headlines.—N. H.

CHAPTER XV

VOLUNTARY OR COMPULSORY?

There is, in my opinion, only one kind of sterilisation worth considering, and that is voluntary sterilisation. I know the arguments for compulsory laws, but I know also the practical objections to these. Theoretically it would be well worth while if we could appoint a tribunal which would pass on the sterilisation of several million persons and thus in one gesture purge the race of a large amount of degeneracy. Then we should merely have to repeat the process at intervals when new crops of degeneracy appeared. All this sounds well, but in our democracy it is impossible of attainment. Where sterilisation has been made compulsory it has not been so successful as where it has been permissive. Nor would it be anywhere else.

This operation must be identified in the public mind as a eugenic one, a health measure and a means of alleviating suffering. It has already, and wisely, been taken out of the class of punitive measures. Allowing sterilisation to become a stigma of criminality would be a serious handicap to its acceptance. Having one's tonsils removed does not stigmatise one, nor having one's appendix removed. Even serious operations in some families, generation after generation, carry no public stigma.

Yet any such operation is surely an indication that the person is in some way inferior, our ideal being such rugged health that no operations are necessary. But sterilisation is both more benevolent and less serious than many another that we undergo as a matter of course. There are, too, so many needing sterilisation that no stigma need become attached. In fact, we ought to respect anybody who has been voluntarily sterilised when he learned of his defects, as a person who is considerate of his fellow-men.

It is strange that people seldom consider the value to a race of eliminations from it. In biology, for instance, those who fail to survive sometimes contribute by their very deaths as much to the welfare of the rest as those who do survive. That is because we cannot remove one minus element without adding to the plus side. And when we subtract a plus element we add to the minus. But no sacrifice is asked for in this case; we merely supply what is desired.

There is in sterilisation a parallel to finger-printing. I have made a goodly number of finger-prints, both to show people how it is done and to use the prints as marks of identification. Finger-printing, everyone who has thought about it agrees, should be a universal mark of identification. And why isn't it to-day in America? Chiefly because a stigma has wrongly become attached to it, and respectable folk shrink from being finger-printed. They have heard that a prisoner is finger-printed at once, and the impressions are kept on record. They know that the authorities keep files for identification of the criminal element, along with pictures. The Rogues' Gallery has

been so well publicised that our people have come to think of careful identification only as a system of catching rogues.

It is thus no exaggeration, probably, to say that the majority of people who are not already enlightened shrink from even the thought of being finger-printed. What they are afraid of is not the putting of their marks on record; they dislike the idea of submitting to what they have always associated with criminals. This may not, of course, represent a high degree of common sense, but it is perhaps only natural.

In just the same way, if sterilisation is made compulsory, is performed on inmates of public institutions without their consent, it too will gradually create in the minds of most people a feeling that is somehow a disgrace. Already, and very wrongly, they have come to consider it disgraceful to have been an inmate of any public institution; hence the many private, secret institutions. This is just as ridiculous as though we were to consider everybody disgraced who had been to a hospital. There is no essential difference: in one case the patient is sick in one part of his body, in the other he is sick in a different part—the brain, or possibly the ductless glands.

Let us never allow sterilisation, this agent of racial betterment, to become a stigma. It isn't to-day; let us see that it does not become so to-morrow. If, however, we make it a matter of compulsion, there is no doubt that it will take on this unwelcome connotation. This would be almost a disaster, since, as we have seen, the people who need to be sterilised are not chiefly those in institutions, but those at large in the population. The

voluntary kind, I say again, is the only kind worth working for.

In this conviction, I am happy to note, I am sustained by the decision of the Department Committee on Sterilisation of the English Board of Health. This body of learned men say in their report, published by the British Government in 1934: "We are convinced that the harm done by compulsion would far outweigh any possible advantage resulting from it." This Commission comes to the conclusion that there are adequate grounds for sanctioning voluntary sterilisation.

"Though there may be no certain prognosis in any particular case, we know enough to be sure that inheritance plays an important part in the causation of mental defects and disorders. We know also that mentally defective* and mentally disordered parents are, as a class, unable to discharge their social and economic liabilities or create an environment favourable to the upbringing of children, and there is reason to believe that sterilisation would in some cases be welcomed by the patients themselves. This knowledge is in our view sufficient, and more than sufficient, to justify allowing and even encouraging mentally defective and mentally disordered patients to adopt the only certain method of preventing procreation. In this view, as in all our recommendations, we are unanimous, and we record it with a full sense of our responsibility. We believe that few who approached the question with an open mind and listened week by week to the evidence we have heard could have failed to be struck by the overwhelming proponderance of evidence in favour of some measure of sterilisation."

Another thought is relevant here. Of all the sterilisa-

* As pointed out in a previous footnote mentally defective patients are not legally capable of giving permission.—N. H.

tions thus far done in America, only a very few have been performed at the instance of the State. It has been fully demonstrated that there is very little need for this, so why all the commotion, considering that there are so few who could object to the permissive sort and so many who might object to the compulsory kind?

We are told that in Germany sterilisation is compulsory. But let Germany worry about that. I believe that if that country were to make her legislation permissive, she would in the long run achieve as great results as she will under the present system. German surgeons, we are assured, are going to sterilise 400,000 persons during the next few years. This will help Germany materially to reduce her charity burden in the next generation. But I feel that had she adopted the voluntary method and trusted to persuasion and thorough education by intelligent medical counsellors, she would progress just as far by inducing her defectives and their kin to grant permission, for the future of the *Vaterland* and the well-being of their families. If patriotism to-day runs higher in Germany than in many other countries, it is because it is kept stirred up and alive, with biological patriotism as the incentive. And though biological patriotism is a comparatively recent phenomenon among human beings, selfishness is very old, and selfishness can be relied on to do some things that patriotism cannot; so can altruism. Selfishness plus sterilisation can reduce the degenerates, as it has already started to do. Altruism plus a little self-interest and pride can increase our best people, as it has already begun doing.

CHAPTER XVI

PAYING THE PIPER

All the Protestant churches in the United States except the Lutheran have issued proclamations or made statements supporting the practice of birth-control; so have the Jews. The Lutherans have not condemned it, but they have decided not to voice an opinion as a church. The first pronouncement came from the Unitarians, and I feel just a little pride in having had something to do with that. Once, in Boston, I spoke before a large group of the Unitarian ministers of New England, suggesting that they pass a certain resolution that I left with them. Shortly afterwards they did so, altering my wording somewhat but essentially expressing the same thought.

The Federal Council of Churches set forth their feeling on the matter as follows:

"The uncompromising position taken against preventing conception, under any and all circumstances, except by abstinence, is manifestly an extreme one, and even dangerous. Certainly there are circumstances of health and disease, recognised everywhere by physicians, which, when abstinenece is not to be relied upon, make the use of contraceptives wise. The arguments from nature and inferences from authoritarian doctrinal positions, upon which the encyclical so largely relies, are laboured and inconclusive. . . . Catholics them-

selves in increasing numbers will not submit themselves in "filial and humble obedience towards the Church" in all these matters. Half of the patients in the Los Angeles birth-control clinics are Catholics, and the people of no country in the world regulate birth so effectively as the French." *

The Lutherans in general are in favour of contraception, individually if not as a church. And we may say that those people who have no religious affiliation are just as whole-heartedly in favour of the widespread practice of birth-control as are those connected with churches.

When we come to the question of sterilisation, it has been my observation that most people consider it another means of birth-control, differing chiefly in being final. I think we are safe in saying that the same great groups which have endorsed birth-control will even more heartily endorse sterilisation if they are called upon to do so. There is, therefore, potentially, a ready-made alignment of interests in favour of the project in America.

On the one hand, we have all those who are interested in racial improvement, who want to see the problem of degeneracy decreased for the sake of reducing the misery of the degenerates themselves. They are thinking also

* Here is the old superstition cropping up that the French practise contraception more widely and more efficiently than other nations. I have both studied and lectured on contraception in France, and it soon becomes evident that there is very little knowledge of contraception in that country, even among the doctors. The truth is that parenthood is avoided, not by the use of contraceptive articles, but by the substitution of caresses and manipulations in the place of complete sexual intercourse. In 1929, when I was lecturing in Paris on Modern Contraceptives, a member of the audience remarked to me, "Vos méthodes sont très intéressantes, mais elles ne sont pas nécessaires dans la France. Ici on se sert de tous les autres orifices du corps." This may be an exaggeration, but it is a significant remark.—N. H.

of the possible savings, the removal of burdens from the more worthy people, and the heightened prosperity of the nation. Many of them think, too, that those who will have to bear the burden of future incompetence are diminishing in numbers owing to their failure to fulfil family-survival quotas; thus they realise that the burden will be all the harder when those who need help may have doubled.

On the other hand, we are opposed by some of the clergy, who insist that birth-control be refused to all, that sterilisation be avoided.

There was a time when we could sit back complacently and try to convince ourselves that actually there was nothing to worry over. It required a depression to bring us to a realisation that something was radically wrong. Even before the depression actually set in students were warning us of what was impending, but we were too busy making money to take them very seriously. Only now have we become fully aware.

The most happy people to-day seem to be those who have convinced themselves that the old times are no more, and who have decided to consider that they must build again, but build more rapidly with the accumulated experience of their past lifetimes to help them. Those who sit, idly waiting for some guardian angel to come and drop manna into their laps are those who are most miserable to-day. The new deal has been proclaimed because these are new times.

Then why should not the people of this new day take stock and plan against a repetition of the evils of the old days? We should. If we did this, one of the first

investigations we might make could profitably be to scrutinise all of the forces which are working for racial betterment, and those which are opposed to it. We might consider charity for example.

Most cities have their community chests from which funds are distributed to those who need them, regardless of race, creed or colour. The funds are not, however, distributed to members of separate religious faiths in accordance with their proportionate part in the population. All over the country, wherever I have studied, I have found this same situation to exist. It is what you would find if you were to make a similar inquiry.

Hence I, in view of years devoted to the study of this vital problem, offer this suggestion, which I believe is the one and only way to bring about a reasonable adjustment. Establish separate Community Chests. One chest will be supported by those who are interested in race-betterment, regardless of sect. Out of the income from that chest will go expenditures carrying with them some permanent alleviation. Out of the other, raised from among those who prefer the older and more conservative methods, will go the funds to take care of their incompetents. This will throw the entire burden imposed by the increase of population exactly where it belongs. Just as soon as people decide that while they are willing to pay for a *reasonable* thing they are unwilling to be mulcted because of a policy with which they have no sympathy—as soon as this happens, there will come a rebellion. We had exactly such a situation in the early days of our Republic when Britain tried to collect taxes from colonies who had no share in fixing them. "Tax-

ation without representation is tyranny!" was the cry that rang up and down the Atlantic coast. To-day our donors of charity face an analogous situation: they are seeing their money used to perpetuate a condition that they disapprove.

Perhaps this argument may seem to some a far cry from sterilisation. But it is very intimately related. We have such good and reliable information as to the increase of sub-normality, of the reasons for its increase, of the ways and means to reduce it both for the benefit of society and the alleviation of the suffering and unhappiness of the sub-normals themselves, that we can to-day point our finger at this influence and say with assurance, "This is helping to build civilisation." We can point our finger at another influence or social agency and say, "This is tending to lower the general level of social values." We can prophesy in some cases whether these levels are being permanently lowered or whether they are only temporarily lowered.

We know that, given a sound citizenry, a great change in our economic system can be serious, but only temporary, but we know too that a great change in the quality of the general heredity of the people cannot be replaced, ever, from the same people. Environment plus a spendid citizenry, becomes more or less what the citizens make it, but that same environment plus a group of sub-normals becomes a very different appearing environment when they have impressed it with the natural propensities. This is seen over and over again in our cities and in the rural districts. Some of the finest old residential sections of New York City and its boroughs are now slums,

where yesterday they were populated by the type of families which furnish wholesome character to our national constitution. And those very sections are as we see them to-day, because of the kind of people who have moved in when the others moved out.

There is nothing about the argument for separate community chests which is not apropos of sterilisation. We are talking about a race building measure, and we cannot accomplish this for the whole population while a minority objects. So we simply ask that minority to look after its own people. Nothing could be fairer than that.

Some will say that if we do establish separate chests, we shall have to look after the offspring of those who oppose sterilisation anyway. They say that we shall have to support the miserable from the public pocket-book, just as we are now supporting all kinds of people through the governmental enterprises in the United States and through the dole in England. But people who say this forget that public opinion has been somewhat educated by the depression, and will be further educated in days to come. It will be a difficult matter to awaken much enthusiasm in a public which knows remedies and resolves to put them in practice even though a minority objects.

But I imagine that we need not worry over the situation. As a concrete example, persons who live in neighbouring apartments or houses are likely to reach a certain stage of intimacy, and presently to talk over family problems with each other. When one group has neighbours who follow a more sensible practice as regards the number of

children they produce, can we expect that group not to find out about it and try to emulate the others? Any number of thoughtful people are now speculating on the wisdom of the opposition to birth-control and sterilisation, and we may perhaps see another "Reformation" in our own time, and with it the realised dreams of the many liberals whom we all know and greatly respect.

Let me close this chapter with a parable that bears on this theme.

Two farmers lived on adjoining farms. Both were potato-growers, and they had always been good friends. One day they met on the road.

"Bill," Sam called out, "Why don't you 'n' me do a little co-operatin'?"

"Why not? What's on yer mind?" Bill returned.

"Well, I been a-thinkin'. Here *you* raise potatoes and *I* raise potatoes. Now why don't we go to work and do our farmin' together, like we hear about other folks doin' in the magazines?"

"Good idea, Sam. How be we a-goin' to do it?"

"Easy, my boy. We'll pool out seed from last year, and we'll plough and cultivate, and then this fall we'll dig our potatoes and sell 'em together. What do ye say?"

"O.K. Let's start as soon as ploughin' time comes."

The two met again to talk over details. Presently spring came, and they joined forces and began ploughing the two farms. They found it much easier to treat the two as one—to plough straight across instead of each ploughing his own small field and having to turn his horses around often, as before; and they liked the new plan.

After ploughing and harrowing came planting. One morning the men brought the potato-planters out from the sheds. Bill drifted over to see how Sam's seed looked. There it lay in big piles.

"Jumpin' Jehosaphat!" exclaimed Bill. "You ain't a-goin' to plant that gnarly, scabby, wizened-up trash, be ye?"

"Why not?" said his partner, looking up. "Why wouldn't I?"

"And you knowin' enough to propose co-operation in the first place? Surely you know enough not to plant that kind of seed!"

"Well, I been a-plantin' of it every year, just like my father 'n' my grand father did, and I'm goin' to keep on. Fact is, I kin remember hearin' my granddaddy say that it was always best to sell the best potatoes and plant the rest. He done it and what was good enough fer my granddaddy is good enough fer me!"

"But what about *me*?" Bill protested. "Here I been selectin' and selectin', tryin' to get my potatoes bigger 'n' finer, 'n' no scab on 'em. Soaked 'em every year fer scab, an' it's no wonder my spuds have shelled out so fine every fall. And what's more, everything I kin learn from them fellers over at th' Experiment Station about growin' 'em better, I'm going to learn. An' I'm a-goin' to use it too."

"Aw, come on, Bill," coaxed Sam. "Go ahead and let's plant yours and mine all together. What's the harm? I tell ye, what them old-timers said was *right*. I'm goin' by them."

Well, the preliminary work had all been done, and

anyway spring is the time of hope, so Bill felt that for this one time he had better be a sport and go along with Sam. They proceeded to pool their seed, and they went to work. Summer passed. Here and there were fine stalwart potatoes. But by the time the crop was dug, some of the scab from Sam's had infected Bill's, and in addition the crop as a whole was much less than twice as large as Bill by himself had had during previous years.

The time came to market the potatoes. Said Bill: "Now looka here, Sam, let's select our seed for next year, first thing we do. We've had a bad enough lesson this season to know that a feller can't grow good potatoes unless he has good seed."

"Save the seed?" exclained Sam in disgust. "I guess not. We'll sell the best, and use for seed the little poor ones that we can't sell."

Then (because this is a modern parable) Bill replied: "Oh, *yeah*? Well, *you* go ahead and run *your* farm, and keep plantin' your scabby, runty seed. I'm a-going' to keep the best fer seed. I'll run my farm—you run yours—and some day maybe you'll find out what plantin' that poor seed is costin' you!"

CHAPTER XVII

A PLANNED SOCIETY

To-day's discussion of our need for "a planned Society" usually emphasises aspects for our economic structure. As yet, current talk has not touched on a far more important need of contemporary life, the foundation on which any new economic structure must be built, if it is to stay firm. I mean a eugenic programme.

There is no denying the fact that if we take account of the *quality* of a population as well as of its *numbers*, we strike at the root of the problem, for these two go hand in hand. Back of this question, again, stands that of ambition, of goal. Where are we heading? If we want to get somewhere, we first ask ourselves where we are going and then take the most direct route. Where do we want to go? We have over us no dictator motivated by self-glorification; we are not being coerced into breeding a great army which he may use to acquire new territory. We do not need millions of men for national defence, since there is little likelihood of our being attacked by another nation. Perhaps we should do well to adopt as our ideal the desire to become a model nation, to live contentedly within our own boundaries, to forgo any plans of aggression, to produce as much as possible for the support of our own people, to be self-sufficing and

yet have enough surplus to help other peoples when they need it.

A large proportion of our population is of innately fine stock. We still have seed-stock from which we might erect a nation such as the world has never seen, a nation such as has only been dreamed of. What else is there for us to do than just that—become an object lesson? But what kind of object lesson shall we become?

We need financial security. We are going to achieve it, with effort. It has been argued, I think convincingly, that we can get along very well indeed with a smaller population. But it must be made more and more a *quality* population. Perhaps we shall get that too. But if ever we are going to, our first and greatest necessity is the wide and immediate dissemination of birth-control information. Every one must do what he can in the direction of that legislative reform. We must make available to every couple at the time of marriage such information as will enable them to have as many or as few children as they want, and to space the children properly. Progressive upward evolution will inevitably set in. As I have said earlier, what if the minus social elements *do* have two children to satisfy their parental instinct? At that they will diminish at the rate of 50 per cent. each generation.

Give them the necessary information and instruction and let them decide for themselves whether to have few children or many. If we suppose their incomes to be reasonably stable, and if each year they must make their choice between a commodity and a baby, which do you think they will choose? Here is a nice shiny auto-

mobile; and here is a baby. Which will they take? Here is a television apparatus, the newest and best on the market. Will you choose that, Mr. Moron, or would you like another baby? There, Mrs. Moron, are the moving pictures, the public golf-course, there are nine months of freedom versus nine months of staying home—which will you choose?* Mr. Moron, here you see a squalling baby who will get you up nights, and here you see nice long evenings in the poolroom—which will *you* choose? A Sears-Roebuck catalogue offers a thousand choices between a baby and something else that looks pretty tempting. Which will the morons choose? If you think they will choose more than one or two babies, then you don't know morons.

The first step in building a civilisation, therefore, is to place *everybody* on the same footing as that on which our intelligent classes find themselves to-day. This done, sterilisation will come to the assistance of those who are too stupid to comprehend or to carry out the simple methods of contraception; to help those who are intelligent, but resolved, because they know they bear dysgenic germ-plasm, that they will have no children at all; and finally the relatives and guardians of degenerates who want to protect themselves, their family, and the race against the trouble to which the pregnancy of a degenerate in the family might give rise. In the programme for a controlled and planned society, sterilisation will take the place of contraception for a host of persons. It will

* If Mr. and Mrs. Moron choose the television apparatus, the moving pictures, the golf course and the freedom, is it not likely that Mr. and Mrs. Intelligent will choose along analogous lines?—N. H.

make contraception unnecessary in many cases and will liberate the mind of the person desiring an effective and permanent means of birth-control.

A planned society must imply the regulation of births. But its birth-control programme must be threefold: birth-*liberation* for those best endowed by Nature; birth-*maintenance* for the great average; birth-*reduction* for the lowest social elements. Just one thing is essential: to make contraception and sterilisation available. Superiority will of itself be the deciding factor. Superior people will show their superiority in the test which is to come. That test is the survival of the fittest, but the question of who the fittest are will come to have a new meaning. No longer will we make the mistake of translating fitness as brute strength; we shall understand it to comprehend all that we hold dearest in life—beauty, love, idealism, good citizenship, honour, health, and the happiness that springs from being able to create our families by choice rather than by chance.

If I did not know that already within our ranks we are witnessing a demonstration that this condition can actually come about, I should not feel so hopeful. But all our population figures show that whereas the birth-rate dropped first in the upper classes (considering class on the basis of intelligence) the ability to control this has slowly crept downward until to-day it is *almost* possible for the border-line group to control their births. To-morrow it *will* be possible for them. And that to-morrow can be brought closer by the efforts of all intelligent people. "Ye shall know the truth and the truth shall make you free."

CHAPTER XVIII

HOLDING THE BEAR BY THE TAIL

Once upon a time there was a kind gentleman who bought a bear-cub.

Now a bear-cub is about the most lovable little creature ever invented by Nature. Anybody would fall for one. Indeed, "Teddy Bears" owed their popularity to this very susceptibility in children and grown-ups alike. So we must not blame the kind gentleman for yielding to his impulse. Edward was the cutest of bear-cubs—so helpless, so utterly dependent on its master for its every need, so gentle and appealing. Never did Edward scratch the kind gentleman, but lapped his hand and followed him everywhere he went.

Edward lived on the fat of the land. Edward grew. But for many months its owner, because he was so close to his pet, did not notice the growth; though now and again he did wonder why Edward was eating so much more food every week. Then one day he awoke to the realisation that his darling little cub was losing some of its cuteness. That night he didn't sleep very well, and he got up on the wrong side of the bed. At breakfast he said to his wife that maybe he had undertaken something that wasn't so laudable. However, he went off to

business, and came home feeling better and having forgotten all about Edward in the meantime.

Day after day he continued Edward's feedings—a little more every week. He brought his friends over to see his pet, to admire Edward's proud beauty. But pretty soon he found he had to stop referring to "our cub"—Edward could certainly not be called anything but a full-grown bear by this time. Also it occurred to him after a while that his pet didn't seem very grateful for everything he was doing for it—acted, indeed, anything but appreciative. Sometimes, when he set the dish of food down, Edward would actually growl at his kind master.

And then one day he took his bear out for a stroll, leading it on a chain as usual. But as the two were passing along the village street the bear suddenly began to growl fiercely; then struck at the kind gentlemen with a tremendously powerful paw. This seemed almost to hint ingratitude, and the gentleman was much shocked. He dared not drop the chain lest Edward should run loose through the neighbourhood and scare the people to death. So he promptly did what he had been told was the only thing to do—he caught hold of Edward's tail. The bear raced ahead, dragging its master by its tail; then stopped and tried to reach back. But its master only pulled a little harder, sidewise. All that the bear could do was to look around threateningly. He hung, and he hung, and finally, when he was completely exhausted, he yelled for help. So a neighbour came out with a gun and shot Edward. And that's the end of the story.

HOLDING THE BEAR BY THE TAIL

Some generations ago, we—the kindly people of America—adopted a cute little harmless bear-cub, in the form of our mentally handicapped citizens. We fed them, clothed them, housed them, allowed them to increase in size by continual augmentation from immigrants of their own calibre. At first we enjoyed helping these unfortunates. Those of us who could afford it took no end of pleasure in the consciousness that our charges were being generously provided with creature comforts.

But this bear grew, too, and once in a while we found ourselves a little worried as to whether we had done just the right thing. But we got over that feeling, chiefly because we had argued ourselves into believing that what we were doing was the only thing we could do.

And then the time came when our bear—our subnormals and degenerates, our imbeciles and morons—actually attacked us. There was just one chance of salvation: we reached for the bear's tail. And we have been hanging on to that tail ever since. We daren't let go, because we know that if we do, our bear will turn on us and tear us to bits.

Indeed, this is exactly the problem that now confronts the better classes not only in our own country but in many another as well. They have a bear by the tail, the bear that they have fondly tended. They forgot that a bear grows up to be a treacherous beast. They saw it first when it was appealing and harmless, except for its potentialities. And how are they now holding on to its tail? By charity, which they no longer give cheerfully

but have come to look on chiefly as a means of self-protection.

Now charity, in its Pauline sense—love and compassion—is essential to human nobility, and the expression of it in kindly action brings strength and happiness, "blessing him that gives and him that takes." But organised charity should be directed toward making itself gradually less and less needed. It *should* end with one generation, if possible with one almsgiving. This is, of course, an unattainable ideal. The ideal benefaction is a charity to lessen charity—I mean ideal in the sense of ultimate kindness, kindness to the recipient. The true Good Samaritan not only binds up the wounds of the stranger assaulted on the road; he uses his intelligence to see to it that there won't be any more attacks made along that road.

Have you ever thought what might happen if we were to stop dispensing all this soothing-syrup? The Community Chest is one of the things that have carried America through the depression. We have nurtured our minus elements, who are too stupid or too vicious to understand anything but force, to whom the sole criterion of right is whether you can get away with it. We have coddled them until they have become so powerful that if we let go of the tail we might as well write *finis* to ourselves and our civilisation. They are strong enough to overwhelm the rich and intelligent and public-spirited. More of them to-day are demanding perpetual care than we are able to control. Give, give, give. You must give—you who have the wealth. We must, too—we who wear white collars and who have suffered during the

depression far more than have many of the pets whom misguided charity has reared so tenderly.

We have reached a crisis. These border-liners are having so many unwanted children that they are—not from choice—almost doubling their numbers every generation. The donors of charity are becoming gradually fewer, though when they get free of some of the burden that our degenerates impose on them they will begin to increase.

We know that to-day's need for public relief has been a terrific strain on ourselves as donors to private charity and on our national resources as well. We know how necessary some of our multi-initialed Federal enterprises are, how helpful they have been in relieving the strain on private charity. But we know, too, that these are but another form of soothing-syrup, for which our children will have to pay. Now isn't it obvious—so obvious that even the morons themselves could see it—that if the subnormal group, our overgrown pet whose keeper dares not let go of its tail, continues to grow, it will not only shake its keeper off but actually turn and devour him and all his property? The only mystery is why the keeper himself hasn't long ago seen this. Is it because he has been only half-conscious of the growing strength and menace of the bear, and has refused to admit that the day must come when he can no longer control it?

I have endeavoured to treat the subject of sterilisation dispassionately, at the same time presenting the facts as I know them and as they relate to the ways in which sterilisation may be used as a race-builder, an eliminator

of human misery, and an agency for increasing the sum total of human happiness.

To recapitulate briefly: we have seen that the operation itself is a simple one—very simple as operations go; and that it does not interfere either with sexual satisfaction or with the sexual functions except that it insures sterility. We have noted the great increase in degeneracy in America, its source, and its cost. We have observed some of the known inherited human characteristics and the mode of their inheritance. We have seen that there are few valid objections and many compelling reasons for making sterilisation available to those who want it, provided they are given complete protection and are made to take time to consider the possible consequences of their decision. Then we have observed the recognised fact that many a degenerate does not really want a lot of children, that he has them as the price he must pay for sexual satisfaction, and that if we will but help him to do as he really prefers to do, if we will put him on a par with ourselves in the matters of contraception and sterilisation, he himself will do the very thing that is best for the future of America—namely, have fewer children. We have seen, too, that a planned society is practically unthinkable without sterilisation, and that to a certain extent the future of our race depends on the widest possible application of the procedure. But we also know that the movement has powerful enemies, who for reasons of their own will probably continue for many years to oppose all efforts towards race-building. We therefore propose not only to bring them to their senses

but also—in the name of ordinary justice—to let them pay for their folly; nay, to insist that they pay for it.

Twenty years ago the proponents of sterilisation found themselves but voices crying in the wilderness, supported only by a little band of far-sighted citizens whose common sense told them that like tends to beget like. Until to-day one has felt inadequate, almost solitary, when he tried to urge his convictions upon the apathetic millions of his fellow citizens. If Herr Hitler deserves any approbation at all it must be for his services in making John Citizen think about sterilisation. Eugenics is being taught now in three-quarters of our five hundred colleges and universities, and in many high and preparatory schools. Its teachings are furnishing texts for thousands of sermons.

Though I know of no other like movement that has had such encouraging growth, there is still room for a lot of expansion. Not until its message has reached every man, woman, and child and made all of them feel that theirs is the opportunity to take part in the building of a greater civilistion—not until then will eugenics be living up to its potentialities. And what can *I* do, what can *you* do, in this cause? Helpless and insignificant we may be, as individuals; but by adding each his enthusiastic willingness to spread eugenic ideas and to help educate the opposing forces, we can do a great deal.

Let me quote from Charles Edward Russell's article in the October, 1933, issue of *Scribner's Magazine*:

"Every attack upon every entrenched evil helps towards the onward motion. And it makes not the slightest difference in men's eyes if the attack is fruitless. There

is no such thing in the world as a wasted protest against any existing evil. If the protest is made to no more than a handful of people and is stifled then, it will, if it is true, just and honest, bear sometime its due measure of fruit. . . .

Nothing pays so well as enlistment in some betterment movement. It pays—not in simoleons* nor in kudos, but in one's right to be on good terms with one's self, which is about all there is in life anyway which amounts to a hoot. . . . The one purpose that seems to have either sanity or actual reward is to keep some step, however stumbling, however far in the rear, with the vast, silent, often mysterious, sometimes hardly discernible processes that are slowly transforming the world from a wolves' den to a place where a man can know some peace, some content, some joy of living, some sense of the inexhaustible beauties of the universe in which he has been placed."

If you can think of any subject or cause that you could interest yourself in that will yield to you and to society the same returns that the sterilisation cause will yield, I should like to know what it is. Every man, every woman, needs some constructive hobby. Here is a cause to which you can usefully give as much or as little time as you have to spare. You will find yourself shoulder to shoulder with men and women who have the best interests of our country at heart. None of them is trying to make any profit, none has any axe to grind. Everybody has just one objective and is doing his or her part to achieve it.

We ourselves, admittedly, will hardly live to see much

* The word "simoleons" is the American equivalent for the word "shekels" as we English use it, in a slang way, to mean "lots of money."—N. H.

more than the beginnings of what we are striving towards. But the world is old, after all; the human germ-plasm has been evolving through countless æons, and there will be human creatures on earth for many millions of years to come. This being so, it is little enough for us now to "learn [or plan] as though we were to live for ever, to live as though we were to die to-morrow." As biology tells us, though we ourselves shall not live on, the germ-plasm that created us will go on creating our children and our children's children. The Immortal Germ-plasm! When we consider that in this way we *do* have immortality of a sort, ought it not to make us think? Should we not accept more seriously than we do the responsibility that is ours? What we do to-day in the direction of improving the germ-plasm determines what kind of germ-plasm there will be to-morrow. What are we going to do about it? Drift? There are those who see us headed for dire calamity. "As I watch America drifting gaily with invincible optimism down the road to destruction, I seem to be contemplating the greatest tragedy in the history of mankind," wrote Dr. William McDougall, eminent psychologist—but he wrote it before we had learned the eloquent fact that the people at the very top are having enough children to keep their families perpetuated, before we began to note the swing towards adequate families in our best endowed classes.

America is certainly not bound "down the road to destruction," notwithstanding some current situations that must cause us grave concern. Too many good minds are left, too many persons are eager and ready to

help steer the Ship of State away from the rocks that loom in the distance. There is fuel aplenty for that ship, but we have come to see that navigation is as essential as fuel. We may heartily rejoice at the promising signs that point unmistakably to the fact that a biological revolution is going on among us, that a new public sentiment is discoverable which may turn the tide, that there is developing among us a better type of human being—idealistic, practical, religious, intelligent, with sound temperament and noble emotions. Let us then devote our utmost effort to encouraging this type, and to discouraging the continuation of those at the lower end of the social scale.

APPENDICES

Appendix A

THE STUDIES MADE IN CALIFORNIA BY GOSNEY AND POPENOE

Appendix B

TABLES OF INHERITED CHARACTERISTICS

Appendix C

NUMBER OF STERILISATIONS, BY STATES

Appendix D

RELIGIOUS AFFILIATIONS

APPENDIX A

The following technical papers represent the work of Mr. E. S. Gosney and Dr. Paul Popenoe. They deal with the workings of the California eugenical sterilisation law and are fundamental source-material for any one interested in sterilisation.

1. THE INSANE. *Journal of Social Hygiene*, XIII (5): 257–268, May, 1927.
2. THE FEEBLE-MINDED. *Journal of Social Hygiene*, XIII (6): 321–330, June, 1927.
3. SUCCESS ON PAROLE AFTER STERILISATION. *Proc. American Assn. for the Study of the Feeble-minded*, 51st annual session, 1927, pp. 86–103.
4. CHANGES IN ADMINISTRATION. *Journal of Social Hygiene*, XIII (8): 466–477, November, 1927.
5. ECONOMIC AND SOCIAL STATUS OF STERILISED INSANE. *Journal of Social Hygiene*, XIV (1): 23–32, January, 1928.
6. MARRIAGE RATES OF THE PSYCHOTIC. *Journal of Nervous and Mental Diseases*, LXVIII (1): 17–27, July, 1928.
7. FECUNDITY OF THE INSANE. *Journal of Heredity*, XIX (2): 73–82, February, 1928.
8. MENSTRUATION AND SALPINGECTOMY AMONG THE FEEBLE-MINDED. *The Pedagogical Seminary and Journal of Genetic Psychology*, XXXV: 303–311, 1928.
9. VOLUNTARY STERILISATION. *Proceedings of the 3rd Race Betterment Congress*, Battle Creek, Michigan, 1928.

10. ATTITUDE OF THE PATIENT'S RELATIVES TOWARDS THE OPERATION. *Journal of Social Hygiene*, XIV (5): 271–280, May, 1928.

11. ATTITUDE OF PATIENTS TOWARDS THE OPERATION. *Journal of Social Hygiene*, XIV (5): 280–285, May, 1928.

12. SOCIAL AND ECONOMIC STATUS OF THE STERILISED FEEBLE-MINDED. *Journal of Applied Psychology*, XII (3): 304–316, June, 1928.

13. MARRIAGE AFTER EUGENIC STERILISATION. *Proc. of the 52nd annual meeting of the American Assn. for the Study of the Feeble-minded*, 1928.

14. THE NUMBER OF PERSONS NEEDING STERILISATION. *Journal of Heredity*, XIX (9): 405–411, September, 1928.

15. THE LAW AND HUMAN STERILISATION. *Proceedings of the 51st annual meeting of the American Bar Assn.*, 1928 (by Otis H. Castle).

16. STERILISATION AND CRIMINALITY. *Proceedings of the 51st annual meeting of the American Bar Association*, 1928.

17. EFFECT OF SALPINGECTOMY ON THE SEXUAL LIFE. *Eugenics*, I (2): 9–23, November, 1928.

18. EFFECT OF VASECTOMY ON THE SEXUAL LIFE. *Journal of Abnormal and Social Psychology*, 1929.

APPENDIX B

TABLE I

INHERITED CHARACTERISTICS IN HUMAN BEINGS (PARTIAL LIST)

Dominance of One Character and Recessiveness of the Corresponding, in the First Generation of Offspring; and Segregation in the Second and Subsequent Generations.

Body size and shape.

Certain fœtal deformities (achondroplasia). Dominant over normal.

Normal size. Dominant over true dwarfs.

Skeleton.

All the following traits dominate normal condition.

Short digits and limbs (brachydactyly).
Absence of distal phalanges.
Extra digits (polydactyly).
Fused, webbed, or fewer digits (syndactyly).
Fused joints of digits (symphalangy).
Abnormal outgrowths of long bones (exostoses).
Fragility of bones (osteopsathyrosis).
Double-jointedness.

Skin.

Pale thin skin. Dominant over coloured thin skin.

Brunette complexion. Dominant over intermediate and blonde.

Spotted white (vitiligo). Dominant over uniformly coloured.

Excessive formation of blisters (epidermolysis). Dominant over normal.
Hairiness, congenital (hypertrichosis). Dominant over normal.
Skin thickening, nail marking. Dominant over normal.

Hair.

White forelock. Dominant over normal solid colour.
Dark brown. Dominant over light brown to tow and light reds.
Black. Dominant over all other colours.
Patchy greying of hair (canities). Dominant over normal, solid colour.
Curly, flat cross-section. Dominant over straight, round cross-section.
Beaded, non-uniform cross-section. Dominant over normal section.
Digital hair. Dominant over absence.

Eyes.

Brown or black. Dominant over blue.
Hereditary cataract—this and following all dominant over normal.
Internal pressure and swelling of eyeball (glaucoma).
Displaced lens (ectopia lentis).
Retina pigmentary degeneration (retinitis pigmentosa).
Absence of crystalline lens, congenital (aphakia).
Drooping of eyelid from paralysis, congenital (ptosis).

Ears.

Normal condition. Dominant over deaf-mutism.
Normal condition. Dominant over hardening of ear tissue (otosclerosis).

Nervous system.

Chronic muscular twitchings (Huntington's chorea). Dominant over normal.

Muscular atrophy, progressive neural, both dominant over normal.
Spontaneous (idiopathic) epilepsy. Recessive to normal.
Constitutional feeble-mindedness. Recessive to normal.
St. Vitus' dance (Sydenham's chorea). Recessive to normal.
Lack of muscular tone (Thomson's disease). Recessive to normal.

Kidneys.

Excessive urination (diabetes insipidus). Dominant over normal.
Excessive sugar in urine (diabetes mellitus). Dominant over normal.
Urine dark after oxidation (alkaptonuria). Recessive to normal.

TABLE II

CHARACTERISTICS TENDING TO "RUN IN FAMILIES"

Defective hair and teeth
Extra teeth
Double set of permanent teeth
Hare-lip and cleft palate
Retention of testes in abdomen (cryptorchidism)
Absence of certain teeth (dental agnesia)
Bilobed ear
Dent in forehead
Human protein sensitisation
Double crown of scalp
Stiffening of joints (ankylosis)
Degeneracy of the cornea
Longevity
Handclasp
Constitutional predisposition to certain diseases, such as cancer, pneumonia, abdominal hernia, inguinal hernia
Stuttering or stammering
Anæmia in young women (chlorosis)

Nosebleed (epistaxis)
Dilatation of capillaries (telangiectasis)
Splenic anæmia
Gout
Goitre
Exophthalmic goitre (Graves' disease)
Ability: (*a*) literary, (*b*) mathematical, (*c*) mechanical, (*d*) artistic, (*e*) intellectual
Heart defect
Pernicious anæmia
Hardening of arteries (arteriosclerosis)

Table III

INHERITED CHARACTERISTICS DOMINANT IN MALES AND RECESSIVE IN FEMALES

Fissure of parts of eye (coloboma)
Atrophy of optic nerve
Near sight (myopia)
Colour blindness (Daltonism)
Night blindness
Rolling of eyes (nystagmus)
Scaly skin (ichthyosis)
Pattern baldness
Degeneration of nerve tissue (multiple sclerosis)
Grower's muscular atrophy (dystrophia muscularis progressiva)
Tendency to abnormal bleeding (hæmophilia)
Wanderlust
Deficiency in sense of smell
Sea-lust (thalassophilia)
Toothlessness
Webbed toes
Abnormal smallness of eyes (microphthalmia)

APPENDIX C

NUMBER OF STERILISATIONS, BY STATES

The following table shows what many of our States are doing in regard to sterilisation in their institutions. It shows the number of operations in each State performed up to January 1st, 1921; between then and January 1st, 1928; between then and January 1st, 1932; and between then and January 1st, 1933. The first column shows the year when the law was passed or when the latest amendment was passed to the existing law. A dash means that in this year there was no law; a cipher means that there was a law but that no operations were performed. The table does not, of course, show the many operations performed privately.

State	Last Law Passed	Jan. 1, 1921 *	Jan. 1, 1928	Jan. 1, 1932	Jan. 1, 1933
Alabama	1923	—	0	76	131
Arizona	1929	—	0	0	20
California	1917	2,558	5,820	7,548	8,504
Connecticut	1919	27	158	158	538
Delaware	1929	—	77	141	296
Idaho	1929	—	0	0	13
Indiana *	1931	120	120	120	217
Iowa	1929	49	57	57	94
Kansas	1917	54	647	657	976
Maine	1931	—	5	42	41
Michigan	1929	1	106	629	1,083
Minnesota	1925	—	232	508	693
Mississippi	1928	—	0	0	12
Montana	1923	—	35	35	81
Nebraska	1929	155	308	386	229
New Hampshire	1929	—	46	85	165
New York	—	42	42	42	42
Nevada	—	0	0	0	0
North Carolina	1929	—	0	21	46
North Dakota	1927	23	33	33	93
Oklahoma	1931	—	0	0	0
Oregon	1925	127	511	576	882
South Dakota	1927	0	0	37	139
Utah	1929	—	64	79	85
Vermont	1931	—	0	0	30
Virginia	1924	—	27	658	1,333
Washington	1921	1	9	9	20
West Virginia	1929	—	0	0	1
Wisconsin	1913	76	218	248	492
	Total	3,233	8,515	12,145	16,056

* The figures given for Indiana do not include the voluntary sterilisations of several hundred males between 1899 and 1909, the year when Indiana passed its first law.

APPENDIX D

As the tables on page 119 seem to me obscure, and especially as I could not understand how the figures in the third column had been obtained, I wrote to the author asking for further information. In his reply he says, "I don't wonder you didn't find the table clear. I had hoped to publish a more complete table, but space didn't permit. I hope that you may find more room in the English edition so that it may be more fully explained. It was also thought that the more elaborate table would not find such interest among readers as a briefer table would. In the table on page 119 several items are omitted. The figures about which you wonder (column 3) are determined by considering 500 men or women and their wives or husbands, plus the women or men whom they might have married. The number of great grandchildren is estimated without making allowance for the fact that more boys than girls are born. It is based on the children per man or woman, plus the assumption that 10 per cent. of the children in the families reporting children in 'Who's Who,' are omitted because of death in infancy or early childhood, and that 15 per cent. of all children born in 'Who's Who' families died before reaching maturity." At the same time the author sent me the full table, from which the table on page 119 was taken, and I reproduce it here.

N. H.

RELIGIOUS AFFILIATIONS OF PEOPLE IN "WHO'S WHO" COMPARED WITH MARRIAGE, FAMILY, NUMBER OF ADHERENTS, EMINENT PERSONS, AND PROBABLE DESCENDANTS.

PART I. MEN'S TABLE.

Name of Denomination.	Estimated Adherents in Thousands	Estimated Number of Persons in "Who's Who"(1)	Estimated Persons in "Who's Who" Per 100,000 Adherents	Per Cent. Married	Per Cent. of Married Having Children	Children Per Father or Mother	Estimated Children Per Man(2)	Probable Great-grandchildren Per 1,000 Persons(3)
Mormons	616	66	11	100	88	5.3	4.6	10,200
United Brethren	1,050	34	3	100	84	3.3	2.8	2,320
Lutherans	6,910	548	8	94	84	3.3	2.6	1,950
Evangelicals	1,420	66	5	92	91	3.0	2.5	1,730
Brethren	376	27	7	100	90	2.8	2.5	1,600
Reformed	1,530	195	13	96	89	2.9	2.5	1,580
Baptists (4)	14,200	2,213	16	95	84	3.1	2.5	1,560
Methodists (4)	19,750	3,510	18	98	85	2.9	2.4	1,455
Disciples	3,880	410	11	99	87	2.8	2.4	1,450
Christians	288	129	45	89	86	3.1	2.4	1,380
Roman Catholics	18,261	1,220	7	65	74	3.3	1.6	450
(Omitting priests)	——	——	——	92	74	3.3	2.3	1,310
Presbyterians	7,030	4,360	62	96	85	2.8	2.3	1,230
Adventists	392	43	11	88	86	3.0	2.3	1,190
Congregationalists	2,405	2,840	113	98	83	2.7	2.2	1,125
Unitarians	111	1,316	1,185	93	80	2.9	2.1	1,025
Episcopalians	3,160	4,920	156	91	82	2.8	2.1	910
Friends	325	102	31	84	82	2.9	2.0	855
Jews	1,600	312	20	86	87	2.6	1.9	755
Universalists	47	183	390	94	76	2.4	1.7	500
Tabulated as reporting religious belief	——	9,592(5)	——	93	83	2.9	2.2	1,230
Tabulated as not reporting religious belief	——	8,191(5)	——	84	78	2.7	1.8	590

(1) Based on 9,592 men and 688 women who report religious affiliation. This column shows the estimated numbers if 10 per cent. of all the persons in "Who's Who" have no religious affiliations and if the remainder are distrubuted in the same proportions as are those who report.

(2) Without allowance for children not reported because of death in infancy or childhood.

(3) This means 500 men (or women) and the women (or men) whom they married or might have married. For method of calculation, see Note 2, Table 5. Note that in computing this column the original data in preceding columns were carried to one place more of decimals than in the present table.

(4) Omitting coloured churches.

(5) These two numbers make a total which is 4,713 less than the total for the numbers in the same column above them. This is because only a little over a third of the men who do not report children were used in our original calculations. The remainder (estimated at 4,713 who presumably have some religious affiliation, plus 524 who are supposed to have none) have been distributed pro rata to the various religious groups or have been omitted as part of the 10 per cent. whom we assume to be without any religious affiliation whatever.

BIBLIOGRAPHY

Barr, M. W. "Mental Defectives." Philadelphia, Blakiston, 1904.

Carr-Saunders, A. M. "Eugenics." New York, Holt, 1926.

—— "The Population Problem." Oxford, Clarendon Press, 1922, p. 516. "Population." London, Oxford University Press, 1925.

Conklin, E. G. "Heredity and Environment in the Development of Men." Princeton University Press, Ed. 5, 1923.

Danielson, F. H., and Davenport, C. B. "The Hill Folk. Report on a Rural Community of Hereditary Defectives." Mem. Eugenics Record Office, No. 1, 1912.

Darwin, C. "The Descent of Man" and "Selection in Relation to Sex." London, Murray, 1874.

Darwin, L. "The Need of Eugenic Reform." New York, Appleton, 1926.

—— "What Is Eugenics?" New York, Galton, 1930.

Davenport, C. B. "Heredity in Relation to Eugenics." New York, Holt, 1911.

—— and Love, A. G. "Defects Found in Drafted Men." Washington, D.C.: U.S. Surgeon-General's Office, Superintendent of Documents, 1924.

—— and Weeks, D. F. "First Study of Inheritance in Epilepsy," Bulletin, No. 4, Cold Spring Harbour. New York, Eugenics Record Office, 1911.

Davies, S. "Social Control of the Mentally Deficient." New York, T. Y. Crowell Co., 1930.

Dayton, N. A. "Mortality in Mental Deficiency Over a Fourteen-Year Period in Massachusetts: Analysis of 8,800 Cases." Thirty-Sixth Proceedings and Addresses of

the Fifty-fifth Annual Session of the American Association for the Study of the Feeble-minded. Vol. 36, 1931–1932.

Dugdale, R. L. "The Jukes: A Study in Crime, Pauperism, Disease and Heredity." Ed. 4. New York, 1910.

East, E. M. "Heredity and Human Affairs." New York, Charles Scribner's Sons, 1927.

—— "Mankind at the Crossroads." New York, Scribner, 1923.

—— and Jones, D. F. "Inbreeding and Outbreeding." Philadelphia, Lippincott, 1919.

Ellis, Havelock. "Study of British Genius." Boston, Houghton Mifflin Co., 1926.

—— "Studies in the Psychology of Sex." 7 vols. Philadelphia, Davis & Son.

Encyclical Casti Connubii of Pope Pius XI: "On Christian Marriage in Relation to Present Conditions, Needs and Disorders of Society." Jan. 9, 1931.

Estabrook, A. H. "The Jukes in 1915." Washington, Carnegie Institution, 1916.

—— and McDougle, J. E. "Mongrel Virginians." Baltimore, Williams and Wilkins, 1926.

—— and Davenport, C. B. "The Nam Family. A Study in Cacogenics." Mem. Eugenics Record Office, No. 2, 1912.

"Eugenical Sterilisation in the United States." Chicago, Psychopathic Laboratory of the Municipal Court of Chicago, 1922.

"Eugenical Sterilisation, 1926." New Haven, American Eugenics Society, 1925.

"Eugenics, Genetics and the Family," "Eugenics in Race and State." Baltimore, Williams and Wilkins Company, 1923.

Fairchild, H. P. "The Melting Pot Mistake." Boston, Little, Brown, 1926.

Federal Council of The Churches of Christ: "Moral Aspects of Birth Control" (1931). 34 Current History, 97–100.

Fernald, M. R., *et al.* "A Study of Women Delinquents in New York State." New York, Century Co., 1920.

Galton, F. "Essays on Eugenics." London, Eugenics Education Society, 1909.

—— "Hereditary Genius: An Inquiry Into Its Laws and Consequences." New York, Macmillan Co., 1869.

—— "Hereditary Genius." London, Macmillan, 1869.

Gates, R. R. "Heredity and Eugenics." London, Constable, 1923.

Goodard, H. H. "The Kallikak Family." New York, Macmillan, 1912.

—— "Feeble-mindedness." New York, Macmillan, 1914.

—— "The Criminal Imbecile." New York, Macmillan, 1915.

Gosney, E. S., and Popenoe, P. "Sterilisation for Human Betterment." New York, Macmillan Co., 1929.

Guyer, M. F. "Being Well-Born; an Introduction to Eugenics." Indianapolis, Bobbs-Merrill, 1918.

Guyon. "Sex Life and Sex Ethics." London, John Lane, The Bodley Head, 1934.

Haire, Norman. "Rejuvenation: The Work of Steinach, Voronoff and others." London, George Allen and Unwin.

—— "Hygienic Methods of Family Limitation." London, 1922.

—— "Contraceptive Technique: A Consideration of 1400 Cases." The Practitioner, London, July, 1922.

—— "The Comparative Values of Current Contraceptive Methods." In the Proceedings of the International Congress for Sexual Research, Berlin, 1926.

—— "Some More Medical Views on Birth Control." London, Cecil Palmer, 1928.

—— "How I Run My Birth-Control Clinic." In the Proceedings of the Third International Congress of the World League for Sexual Reform, London, 1929.

—— "Encyclopædia of Sexual Knowledge." London, Francis Aldor, 1934.

—— "Sterilisation, Abortion and Birth Control." In the Proceedings of the Third International Congress of the World League for Sexual Reform, London, 1929.

—— "Hymen, or The Future of Marriage." London, Kegan Paul.

Huntingdon, E. "The Character of Races." New York, Scribner, 1924.

—— "The Pulse of Progress." New York, Charles Scribner's Sons, 1926.

—— and Whitney, L. F. "Builders of America." New York, William Morrow Co., 1927.

Hollingworth, Leta S. "Gifted Children." New York, Macmillan, 1926.

Holmes, S. J. "The Trend of the Race. A Study of Present Tendencies in the Biological Development of Civilised Mankind." New York, Harcourt, Brace, 1921.

—— "The Eugenics Predicament." New York, 1933.

Jennings, H. S. "The Biological Basis of Human Nature." New York, W. W. Norton & Co., 1930.

Kellicott, W. E. "The Social Direction of Human Evolution." New York, Appleton, 1915.

Kellogg, V. L. "Mind and Heredity." Princeton University Press, 1923.

Kirkpatrick, C. "Intelligence and Immigration." Baltimore, William and Wilkins Company, 1926.

Lange, Johannes. "Crime and Destiny." New York, Charles Boni Paper Books, 1930.

Landman, J. S. "Human Sterilisation." New York, Macmillan, 1931.

"Legal Status of Eugenical Sterilisation." Chicago, Municipal Court, 1930. Annual Report, 1928–1929, Supplement.

Mayer, J. "The Legal Sterilisation of the Mentally Diseased." Freiburg im Breisgau, Herder Co., 1927.

McDougall, Wm. "Is America Safe for Democracy?" New York, Scribner.

Morgan, T. H., Sturtevant, A. H., Muller, H. S., and Bridges, C. B. "Mechanism of Mendelian Heredity." New York, Henry Holt & Co., 1923.

Myerson, A. "The Inheritance of Mental Diseases." Baltimore, Williams and Wilkins, 1925.

National Birth Rate Commission of Great Britain: "The Declining Birth-Rate; Its Causes and Effects." London, Chapman and Hall, 1916.

Popenoe, P., and Johnson, R. H. "Applied Eugenics." New York, Macmillan, 1918. Revised edition, 1933.
Porteus and Babcock. "Temperament and Race." Boston, Richard G. Badger.
Reuter, E. B. "The Mulatto in the United States." Boston, Badger, 1918.
Ripley, W. Z. "The Races of Europe." New York, Appleton, 1910.
Ross, E. A. "The Old World in the New." New York, Century Co., 1914.
Ryan, J. A. "Human Sterilisation." Washington, D.C., National Catholic Welfare Conference, 1927.
Saleeby, C. W. "Parenthood and Race Culture." London and New York, Moffat, Yard, 1911.
Schuster, E., and Elderton, E. "Inheritance of Ability." London, Dulay & Co., 1907.
Stockard, C. R. "Physical Basis of Personality." New York, W. W. Norton & Co., 1931.
Terman, L. I. "Genetic Studies of Genius." Stanford University Press, 1925.
Thompson, W. S. "Population: A Study in Malthusianism." New York, Columbia University Press, 1915, pp. 217.
Thompson, W. S. "Population Problems." New York, McGraw-Hill, 1931.
Tredgold, A. F. "Mental Deficiency." London, Bailliere and Cox, 1915.
Wallin, J. E. W. "Problems of Subnormality." Yonkers-on-Hudson, New York, World Book Co., 1917.
Whitney, Leon F. "Basis of Breeding." New Haven, Conn., Earle C. Fowler, 1927. Revised edition, 1933.
Wiggam, A. E. "The Fruit of the Family Tree." Indianapolis, Bobbs-Merrill, 1924.
—— "The New Decalogue of Science." Indianapolis, Bobbs-Merrill, 1923.
Winship, A. E. "Heredity: A History of Jukes-Edwards Families." Boston, 1925, Journal of Education.
Woods, F. A. "Mental and Moral Heredity in Royalty." New York, Henry Holt & Co., 1906.
Yoakum, C. S., and Yerkes, R. M. "Army Mental Tests." New York, Holt, 1920.