

CONTRACEPTION: A MEDICAL REVIEW OF THE SITUATION*

FIRST REPORT OF THE COMMITTEE ON MATERNAL HEALTH OF NEW YORK

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THE medical profession has scant knowledge on which to base advice on control of conception. The gist of what is known is here given, together with an account of the attempts to secure clinical data.

As the objects of the committee were stated in this Journal last March (vol. vii, p. 339), it need only be said here that its scientific investigation of contraception—a section of its study of sterility and fertility—is under the complete medical control of a considerable group of representative physicians; that sponsoring the study was voted for in a questionnaire by the New York Obstetrical Society, and that an endorsement was given by the Public Health Committee of the Academy of Medicine.† This work is deemed to be a complete review of the medical literature; personal inspections of birth control clinics and their records; critical collection of foreign experience and American practice; an agreement on general medical indications; consideration of technic; standards for acceptable case histories and the collection and analysis of these; chemical and animal experimentation, and the setting of (and remuneration for) necessary research problems, laboratory and clinical, bearing on fertility and sterility,—all clinical work, when undertaken here, to be within the interpretation of our law³⁰ that sanctions contraception only “to cure or prevent disease.”

Deeming its most important duty to be the organization of a series of impartial, well-studied clinical tests, and believing that these should be made in responsible institutions, the committee made appropriations of \$300 each to six out-patient departments in order to add to its collection of adequate case records. It is also searching for hospital cases since an inspection was made of the cards in one doctor's office covering more than a thousand patients for whom she had placed the “wishbone stem,” and the finding, in several institutions, histories of serious damage done by this implement. Moreover the committee is trying to overcome the difficulty involved in securing and providing the supplies required in order to study certain claims.

Need of Investigation by the Medical Profession.—The data concerning contraception which can be brought together at this time are only

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†The American Gynecological Society, at the meeting at which this paper was presented, voted to appoint a committee to cooperate.

sufficient to indicate on what lines research and clinical tests and records of effects should be undertaken. There is general recognition of the necessity of an inquiry—one that will be exempt from inclination to prove or disprove any particular theory. The subject should be capable of handling as clean science, with dignity, decency and directness, but with due consideration of the danger that certain forms of publication may pander to pruriency and give safety to license.

The medical profession alone can determine many physical questions bearing on structure, function and abnormal or diseased states. In addition to this mechanical side, the various mental and moral

Contraception—American practice

as inferred from the recommendations of 64 New York & Chicago specialists on obstetrics and gynecology (21st), white bar: and from reports from 730 married women, mostly college graduates, dotted bar, Davis, 9a; the two tables combined. More than one method usually recom-
= mended or practiced.

ORDER OF POPULARITY

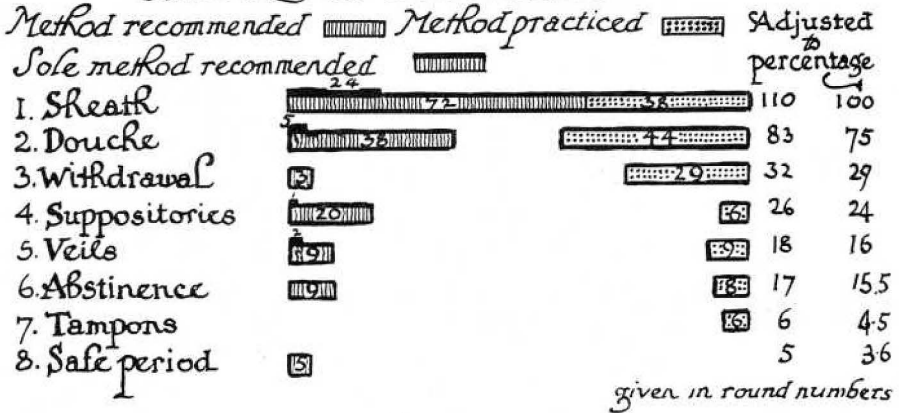


Chart I.

reactions that come chiefly to the knowledge of the doctor, as the father-confessor in matters of sex, should be taken from available records for consideration.

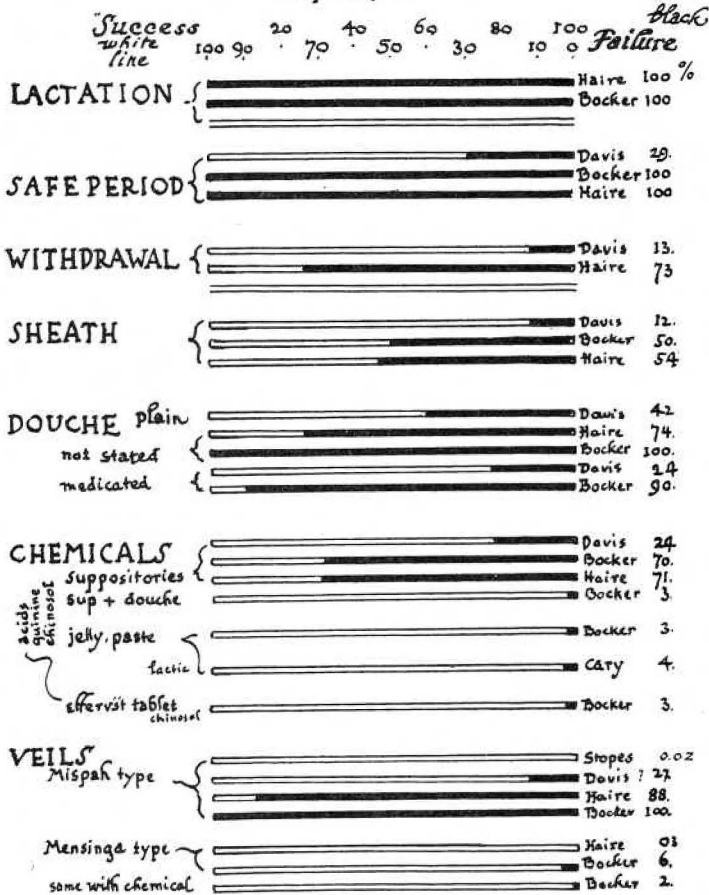
Correlated Studies.—One can attempt, in clinical tests, to set apart the purely medical from the economic considerations involved. This is our present thesis. But this segregation is feasible in part only. The contraception problem forms but one section of a study that must be conducted by a well-balanced group with wide interests,—a group that would take up the interlocking and overlapping problems of fertility and sterility and normal sex life, with the weighty bearing these matters have on individual character, and on family and com-

munity life. The work of the various organizations that are in touch with these questions will need to be coordinated.

Order of Popularity.—A chart has been made from the available figures from Dr. K. B. Davis' 730 educated American women,^{2a} from Dr. Bocker's 1208 clinic patients,³ and from the recommendations of

CHART II
CONTRACEPTION: "SUCCESS" AND FAILURE

Bocker, 1208 patients : Cary, 60; Davis, 730 : Haire, 1300;
Stapes, 1700.



64 obstetricians and gynecologists of New York and Chicago^{21, 21a} (Chart I). This may be summarized as follows:

With laity, douche and sheath rank as of equal importance, but withdrawal is close to them. Compared with these three nothing else has any standing. The clinic patients have tried lactation as a preventive next in order of frequency, and in a few cases veils, tampons and sponges.

With the doctors the sheath is the outstanding measure; the douche

TABLE I
METHODS OF CONTRACEPTION

METHODS OF CONTRACEPTION	FAILURES		ADVANTAGES	DISADVANTAGES
	COLLEGE WOMEN	CLINIC WOMEN		
1 <i>Abstinence</i>	00	00	For the frigid and ascetic?	Nerve strain Infidelity "25 per cent"
2 <i>Lactation</i>		100 per cent		
3 <i>Safe Period:</i> (War, Germany, safety after 21st day)	29	100	Safe for a few women	
4 <i>Withdrawal, coitus interruptus</i> (France); <i>coitus reservatus</i> (Oneida Community)	13	70	Simplicity No apparatus No cleanup	Usually failure of wife's climax
5 <i>Sheath:</i> 2 kinds, rubber, skin, a. tested, lubricated b. douche for break or slip c. combined with chemical	12 fewer "	50	Relative simplicity. Only safety in venereal disease.	Blunting of sensation. Frequent refusal by male.
6 <i>Douche</i> a. plain b. with pressure c. medicated	42 24	100 90	Cleanliness	Not adapted to poor. Mouth of womb not cleared of semen.
7 <i>Chemicals:</i> (acids, quinine, chinosol) a. suppositories b. jellies (paste) c. effervescent tablet d. with douche afterward	24 4 4	70 3 3	Simplicity No handicap on sensation	Messy. Best results require douche Not adapted to poor, if douche is to follow
8 <i>Veils:</i> soft rubber vaginal cups a. Mizpah type (snug on cervix) b. Mensinga type (distends upper vagina) c. with chemical d. douche afterward or next morning	24	1 to 94 4 2 2 to 6	Place safety in wife's own care. No handicap on sensation	Requires careful fitting. Daily removal. Ulceration if neglected.
8 a <i>Tampons, sponges</i> (medicated)		82		
9 <i>Uterine Stems:</i> a. cervix only b. into body of uterus	some "	some "	Stationary safeguard	Infection not infrequent. Probably abortifacient
10 <i>Sterilization</i> a. cauterly-sound strictures at cornua b. tubal excision c. x-ray, radium	some	some	Permanent: Office procedure Insufflation proof of a and b	Few cases tried. Skill required Major operation, done on poor operative risk.

Nos. 4 and 5 place safety measures with the male.
Nos. 6 to 9 place safety measures with the female.
Percentages are drawn from the literature; about 4700 cases.

is ordered half as frequently as the sheath; the suppository is prescribed one-third as often as the sheath and usually supplemented by a douche; veils are recommended by only 6 per cent; withdrawal is condemned by all but four per cent.

On the other hand, the birth control clinics of London^{29, 15} and New York³ are depending largely on the veil; the New York clinic is testing chemicals alone, and the veil plus a chemical; no douche supplements either veil or chemical in these clinics.

The veil, particularly the large form, the Mensinga, seems to have never been given any general test by the medical profession in America.

Order of Safety.—Here we encounter a clash of evidence and opinion (Table I). Combining the specialists on diseases of women and obstetrics and the intelligent American couples, the sheath is the outstanding reliance. With it these couples report failures in 12 per cent; withdrawal shows a little poorer result than the sheath; medicated douches and suppositories and veils exhibit failures among one-quarter of the women reporting, and their plain douche troubles run to 42 per cent.

Conflict in Evidence.—Contrast the above with the record among clinic patients in New York and London in Table I. Taking both cities, this clientele reports failures of the sheath in 50 per cent. Such a discrepancy calls for consideration, for the New York figures cover no less than 507 couples. The difference of experience in safety is no greater than the difference in measures recommended. The three clinics employ chiefly some form of veil, or soft rubber vaginal cups, two of these using shapes that distend the passage high up, while all agree in claiming for them, in series totaling over 4000, less than 5 per cent of failures. In the New York report a chinosol-acid paste or a chinosol effervescent tablet without douche makes nearly as good a showing as the veils, and the combination of veil and chemical claims the best results of all. Douches, alone, though extensively tried among clinic patients, have resulted in failures up to 100 per cent in one series. Vaginal tampons and sponges as protectives have lost credit, and lactation ranks very low.

New Teaching for America.—The clinics, therefore, though they lack counsel from any group which is representative of the medical profession, and though their reports are open to question on several matters, such as bias, reasonably adequate records and follow-up, are developing the general principles of putting the care of the woman into the woman's own care, of fitting a vaginal device to be replaced and removed by her as needed, and of combination of safeguards.

Nothing Less Than Certainty Needed.—Wherever contraception is necessary in order to eliminate serious danger to life or health, no protection protects that ranks lower than one hundred per cent—else fear is not banished, and the penalty of failure is operative

abortion. Therefore the choice lies between total abstinence, or a simple procedure of sterilization (to be employed where there is permanent disability) or a guaranteed technic of contraception not yet worked out.

Penalty of Faults in Technic.—Published studies lack evidence of entry in their records of details essential to success in any technic, yet there is no method in which lack of attention to detail is not likely to result in pregnancy. For example, a means as simple, mechanically, as the sheath, appears to prove, in one private series studied, that the failures are due to lack of lubrication or absence of a douche available when needed, to say nothing of ignorance of the added safeguard of medicated lubricant or preliminary jelly or effervescent tablet.

Adaptation to Individual Needs.—Consideration of the conditions presented by each couple is called for, also medical opinion. As examples, let us note that the sheath and the douche appear to work poorly in the tenement; and that a measure like the veil, if indicated, requires that a doctor first select and fit the device, because of the variations that exist between different individuals in shape and size and position of various internal structures. Indeed, all measures show poorer results in the less intelligent.

Success and Failure.—By “failure” is meant a known pregnancy notwithstanding the uninterrupted use of a particular contraceptive. But it does not follow that the remainder are successes. Dr. Haire and Dr. Bocker both inform us that a patient who does not report is classed as a success. A fifth of the New York patients disappear; only half, in one London clinic, send reports. On the other hand, Dr. Davis’ series show the specific successes. We shall hope to publish series properly classified, grouping those for whom a particular method yielded protection over a given number of years while each deliberate omission resulted in pregnancy, and those wherein protection was afforded for years, and then pregnancy occurred with or without known explanation. Similarly no case should be admitted to the ultimate list of complete successes unless there is adequate evidence that the couple was fertile, and fertile at the period the method was used.

Abstinence.—A special study of the effects will be made.

Safe Period.—This measure, now apparently sanctioned by the Roman Catholic⁴ and Anglican⁵ churches, consists usually in the restriction of intercourse to a period of four to ten days somewhere midway between the periods. Siegel of Freiburg²⁸ studied 320 couples early in the war at a time when German soldiers were only at home two to eight days. The fertilization curve reached its highest point (52 per cent) on the sixth day after the beginning of the period (2 days before the probable rupture of the follicle), remained at nearly

stronger than his series of semen tests showed was necessary. He had a proper vehicle worked out, and this is an important item of comfort. A collapsible tube is used with a nozzle and this is capped by a dropping tube bulb (Fig. 9). He orders a douche immediately after emission. An occasional patient complains of burning. His failures in 60 cases have been two.

Animal experimentation by Dr. Isidor Kross,¹⁸ done for the committee on a series of rats and rabbits, by vaginal injection of this lactic acid jelly, showed no effect upon the frequency with which conception occurred.

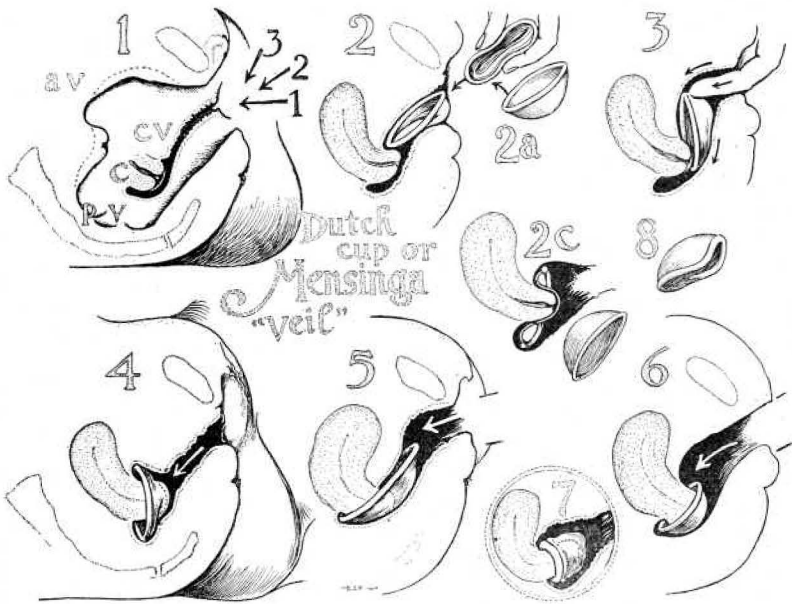
Chinosol.—The outstanding commercialized chemical is oxyquinolin sulphate, an antiseptic more powerful than phenol, but a feeble germicide. It does not coagulate albumin or injure mucous membrane. In some patients 1-2000 causes stinging. It is manufactured under a patent. It is a yellow crystalline powder of saffron-like odor, dissolving readily in water, the aqueous solution having an acid reaction. Ettie Rout,²³ working among the Australian soldiers on leave in Paris, sought for an agent deadly to gonococcus and spirochete, and used chinosol because a strength of 1:4000 kills the gonococcus in one minute. A 15 grain tablet, of slow effervescence, (0.2 chinosol) was developed that would stand tropic heat—that would neither be too friable nor too firm. These are the Proseldis Tablets of Harman Freese, Ltd., of London, costing three pence each there. She has only a hundred histories. Pre-kon-sol and Leucorrhol are said to contain chinosol. If Dr. Boeker's claims are verified no method compares with this for a combination of simplicity and effectiveness.

MENSINGA VAGINAL CUP PESSARY

Contraindications.—(1) The woman newly married with undilated hymen and vagina. After penetration becomes painless a pessary may be placed, but she will require a larger size when the vagina stretches. The 50 mm. is the smallest diameter ordinarily used. (2) Prolapse, an anterior vaginal wall sagging or with a cervix near the vulvar opening. (3) The inelastic narrow or tubular or very wide vagina. This leaves the cup with its long diameter in the long diameter of the vagina and fails to give protection along the anterior vaginal wall. (4) A cervix out of reach: Women with short fingers and a cervix placed far back in a deep pelvic cavity are physically incapacitated for fitting the cup over the cervix. (5) Some women cannot be trusted to withdraw the cup regularly and cleanse it. These may suffer from ulceration from long continued pressure, endotrachelitis from dammed up secretions, and vaginitis from foulness due to the clogging of the pores of the rubber with secretion.

Procedure.—The original advice was for the doctor to place the patient in the knee-chest position and thus to visually determine the

diameter of the upper part of the vagina and observe the fit of the ring in that widest part of the passage. Then the patient was turned on her back and the fit further studied. The dorsal posture, however, would seem sufficient for the estimate of the proper size. The spring (which does not make strong pressure) should distend with very moderate tension as shown in Fig. 4, and what is most important of all, should lie at a more or less strong angle to the axis of the vagina. Comparison between Figs. 4 and 5 will demonstrate right and wrong positions. Fig. 5 presents a circle which is too large and which therefore can only lie lengthwise of the passage. It would consequently permit entry along the anterior vaginal wall in the direction of the white arrow. On the other hand Fig. 6 shows a cup which



Figs. 1 to 8.—Veils or vaginal contraceptive pessaries. 1, The collapsed compared with the distended vagina. *c.v.*, Collapsed vagina, its front and rear walls in apposition; *c.*, cervix; *av.*, anterior vaginal wall in maximal distention in the parous woman; *p.v.*, posterior vaginal wall. Between *av* and *pv* the cervix projects. These outlines are averaged from measurements of seventeen patients in the knee-chest posture. While the tampon in the genupectoral decubitus exhibits this degree of distensibility in most women, this diagram would only be instructive for study of intravaginal rubber diaphragms and phallus action by recalling that in coitus the vaginal distention will be only $1\frac{1}{4}$ inch in diameter. A deep reach will pass either anterior or posterior to the cervix as shown, to about this depth, the male length running very steadily at six to six and one quarter inches. Thus there will never be a vaginal cup needing any such wide span. The three arrows show the direction in this sequence, in which the cup should be passed in, or in which the phallus enters. 2, The spring in the edges of the Mensinga pressed together by the patient to pass the introitus, where it soon pockets in the anterior fornix and is blocked by the cervix. Then 3 shows the maneuver by which the tip is dislodged, through pressure along the anterior vaginal wall well up behind the symphysis. 4, A proper size, set across the vaginal axis and distending the upper vagina. 5, Too large a circle lies in the vaginal axis and exposes the cervix to attack along the anterior wall. 6, Too small a cup permits displacement and entry in front of it. 2a, Shows the "cup" position when a spermicide jelly is to be placed in the cup. 2c, Shows the original "dome" position of Mensinga. 7, The Mizpah type of vaginal cup pessary by which, instead of vaginal distention, a snug fit and suction on the cervix is sought. The ring is solid rubber, grooved for the snapping on of a cup of thin rubber. 8, The Matrisalus, like a reversed Smith pessary with a dome of thin rubber, to lift the anterior vaginal wall and thus prevent entry anteriorly. Useful with moderate cystocele.

does not distend the upper part of the vagina, and therefore also leaves an elastic pocket of the inner part of the anterior vaginal wall which the glans may enter and thus over-ride the ring in front. Mensinga and Haire recommend this cup placed as shown in Fig. 2c, but if it is desired to fill the hollow with some chemical paste or jelly in order that the external os may be smeared and protected by such action, it would seem better to keep the concavity downward, Fig. 2a.

Anteflexion of the cervix would seem favorable for the Mensinga, as the cervix points forward. On the other hand a cervix pointing far backward in a long vagina appears not adapted to this protection. Scant imagination is an unfavorable situation. To the poor any means is specially adapted that takes into consideration the inevitable lack of privacy. A device that calls for no evening douche and is removed the next morning qualifies for the conditions. Moreover the protection of the woman is placed in her own hands.

While the Mensinga type (Ramses, Lambutt, Dutch Cap) is supposed to depend upon a fit that distends the wide upper part of the vagina, the Mizpah type (Pro-Race, Stopes, check pessary) is planned to fit snugly over the cervix as shown in Fig. 7. In this diagram the

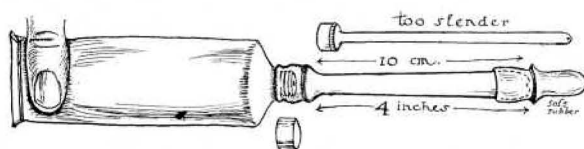


Fig. 9.—Jelly or paste in collapsible tube furnished with nozzle and cap (dropping tube bulb). The nozzle should not be so slender that the urethra could be entered. By keeping the nozzle on the tube, the jelly inside the nozzle does not have to be washed out after each application nor is such quantity wasted.

favorable conditions for such use are indicated in a long and somewhat conical cervix well within the reach of the introitus so that the patient can make sure that a vacuum or suction effect holds the soft rubber ring snugly on the cervix, both before and after coitus.

Where the anterior vaginal wall calls for deeper indentation or uplift to prevent passage of the phallus, the Matrisalus hooded pessary has been recommended (Fig. 8). It has a "turtle-back," an anterior up-curve, like a Smith pessary wrong end foremost. A reversed Hodge with a Mizpah cover is still more effective.

After the proper sized Mensinga has been placed, the patient withdraws or the doctor withdraws and the patient examines herself in order to feel how the cervix projects within the circle of the ring. She must be able to identify this little knob and its position. She then extracts the cup and replaces it herself. Finally the doctor verifies the position.

The patient is instructed to make very sure that she is able to place the ring correctly before she trusts it. She is given a prescription or a collapsible tube of lactic acid jelly or one of the chinisol prepara-

tions and told to use this both as a lubricant and as a filler of the cup to the extent of about a teaspoonful. She is instructed that full protection involves getting up after emission and taking a plain warm water douche, using one-half of the water before removing the womb-veil and one-half of it after its removal, taking care in the second part of the procedure to distend the passage under pressure by holding the external parts together and letting the water come out with a gush.

The veil can be put in place in the afternoon or when dressing for dinner or before retiring. In the Haire and Boeker clinics no douche is ordered and the removal takes place the following morning. The committee's observer, in an inspection in Holland, reports that this is the only measure advised by the women instructed by the New Malthusian League. Following the printed leaflet of Dr. Rutgers,²⁷ they order a douche next morning, part of the fluid to be injected before removing and part after removing the ring. These instructions also specify that before introduction of the pessary the bladder should be emptied.

Figs. 2 and 3 will show the steps by which the woman places the veil, and Fig. 1, 1, 2, 3, shows the directions in which the ring enters in their sequence. She compresses the sides into a figure of 8 shape but is warned that she might break the spring if she collapsed the ring too sharply. She is told that either side up would work and that as long as the mouth of the womb is encircled and projects through the ring and is felt covered with rubber that the ring is in proper position. Also that it cannot slip away, "further up," and "be lost." After it has been lubricated and has been placed within the passage she is told that her finger or thumb must push in along the front wall so as to drive the front part of the circle inwards and even, at first, upwards in order that the further part of the circle may jump across the projecting cone of the mouth of the womb, which is explained and likened to four fingers held together. This step is made quite clear to her as the only trick with which she will have difficulty. Occasionally she needs to be sent home to practice the placements and to return to demonstrate her proficiency. It is found that patients readily learn the method and that but two or three sentences of instruction suffice, fewer words than we have found necessary in explaining processes. The wholesale cost is fifty cents.

Advantages.—As a contraceptive measure the cup appears to present points not to be secured with any other method. Withdrawal, to be sure, interposes no covering at all and brings about complete contacts, but it does not permit of an emission within the vagina and often prevents the wife's climax. This covering of the cervix is said not to interfere with sensation for either partner.

Objections.—The literature contains many cases of damage produced by this instrument. This appears to have been because Men-

singa directed that it should be left in place all the time intervening between the periods. Under these conditions the soft rubber becomes very foul, and the secretions of the cervix are dammed up. Possibly the method has been condemned for what appears not to be inherent in the method. It would seem that daily or frequent removal, cleansing, drying, or boiling, would overcome this objection, and such is the evidence of the two clinics whose main reliance it is.

Further Study.—Because of the extensive use of this measure for forty years in Holland and on the Continent,* and because of the recent commendations from two of the birth control clinics it has been thought important to secure tests in well accredited clinics.

INTRAUTERINE STEMS

Intrauterine stems are divided into two sections, the shorter varieties that stopper the external os and reach in no further than the canal of the cervix and the longer sort intended to spread in the body of the uterus, reaching upward from a button outside the external os.

Cervix Stems.—Cervix stems are relatively uniform in shape and size and resemble a mushroom upside down, or a collar-button. What chiefly holds them in position is the posterior vaginal wall. The first placement is usually by a doctor or midwife. Some patients take them out before a period and have them put back after the period. They are made of hard rubber or aluminum, sometimes of gold or silver. There are very few data to be found concerning these short stems, but it may be guessed that the damage done by them is slight compared with the possibilities of harm producible by stems that enter the body of the uterus. Menstrual fluid and cervical secretion can escape with these shorter devices in place. It would seem likely therefore that semen could enter if fluid can make exit.

Stems that Enter the Body of the Uterus.—The form generally employed is the so-called "wishbone" and is made up of two wires tapering from a Y shape at the top downward as a spiral in the cervix, ending in a metal disc or circle outside the external os. The diameter of the wire is less than one millimeter but the upper end is usually doubled or broadened. The introduction is made by placing the tips in half of a gelatine capsule. The ends spread after the capsule dissolves. The capsule is wet in 5 per cent carbolic acid in alcohol, else it is said to be a not infrequent carrier of infection.

There is a device made of strands of silkworm gut which form a one inch circle for the body of the uterus. These strands are then

**Russia:* The head of the Department of Maternity and Child Welfare of Moscow, Dr. Vera B. Lebedev, informed our representative that the Government did not believe in promoting birth control by propaganda, but that they had a commission to study out the best methods and that they had discarded chemicals and taken to mechanical means such as the pessary. They were strong for having everything under medical control, and information given by physicians. Dr. Lebedev's detailed communication has not yet arrived. The Russians are experimenting further with "inoculations of a sperm serum."

wound with silk to make a stem inside the cervix, with a glass button outside (Pust).

The body of the uterus is supposed to exhibit a cavity of a standard shape, namely, a triangle with its base up. This may be likened to a capital letter Y. But actually the cavity, as shown in the casts of the interior (from Guyon, Fig. 10) may have the form of a capital T or I. A wire intrauterine stem of a Y form, its points drawn together to introduce, and the spreading arms released and thrown apart by a spring, will tend to have these arms bury in the lateral walls of the body of the uterus whenever the interior is of the T or I shape.

The outward pressure of these slender wires has been found to act inside the cavity of the body very much as our silver wire or silk-worm gut does when it is used to sew the Baldwin glass stem in place

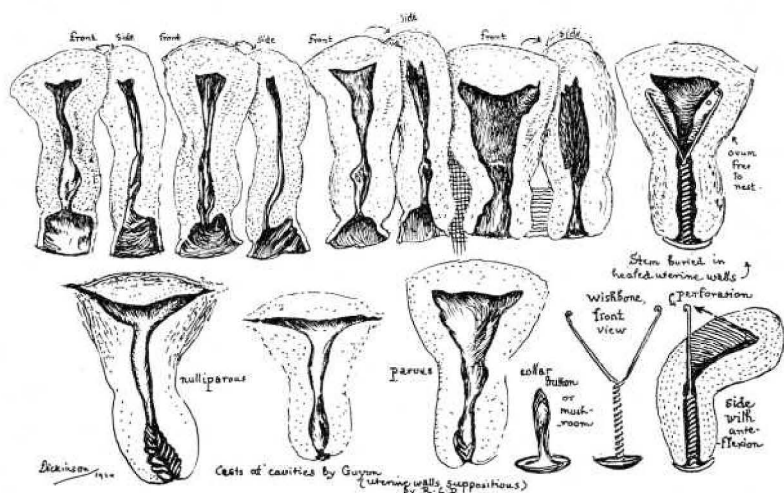


Fig. 10.—The uterine cavity, as shown by casts, and its relation to the intrauterine stem. Note the variety in shape and length and that the "wishbone" or Y-shaped stem, when a misfit, buries, and the ovum beds above it.

by transfixing the cervix high up. Owing to the normal regular uterine contractions these sutures sometimes slowly cut their way down through the cervix, the tissues healing behind them without evident inflammation. Thus the wishbone wires may bury and the lining heal over them. I have apparently found this with filiform and fine probe twice by following up bleeding lateral pockets after removal. After the lining has healed over the wire the ovum may then bed in the endometrium. Both these clinical findings, noted on cases sent in to me for study, were confirmed by the doctor of the largest experience with this form of stem, Dr. Mary Halton of New York, who showed me records of over a thousand cases. Her practice, she said, was to withdraw the "gold pin" at the end of two months, then to sternly forbid intercourse to let the cavity heal, and to reintroduce the instrument.

This "wishbone" has brought about so many abortions and infections that it merits the consideration here given. It has been accused of being protective by producing regular early abortion. We are gathering cases of some of the inflammatory end results and have four in hand, and nine to come, one fatal. I have found two in pregnant uteri; one stem was delivered with the baby, one within the placenta. Dr. Chard discovered one inside a fibroid.⁷

STERILIZATION

Temporary Sterility—Injection of Semen Hypodermically.—Dittler¹¹ and McCartney¹⁹ have produced in fertile pairs of rats sterility varying from a few weeks to thirty, and have found the litters cut in half when conception began again. Haire^{15a} has "experimented with poor success." This is subject for research.

Various observers have studied the effects of *irradiation*. Bailey² a year ago summarized the literature on this subject, and has drawn attention to the danger of the formation of monsters, disturbances in the development of the nervous system, and production of inherited defects in the young. He states that irradiation injures the follicular elements of the ovary. He presents six cases. Pemberton²² brings together thirty-four pregnancies following radiation, and infers that "deformed or undeveloped children are not likely to follow such treatment," but that the chance of miscarriage is increased.

The reimplantation of an amputated tube or temporary burying of the ovary in the inguinal canal has not been studied out.

Permanent Sterilization.—The irrevocability of this choice must be borne in mind. The indefatigable Nürnberger (1917) details the 36 different forms of tubal operations, including tying the tube in a knot. He lists only 6.5 per cent of failures but admits this does not represent the actuality. Rubin's²⁶ inflation tests will soon tell us whether we succeed or not.^{10a} Aldridge¹ has reported three reopenings after five tubal amputations, and Rubin has seen two patencies after sixteen tube sterilization operations.

Several of our members have taken stands on this matter, notably E. P. Davis⁸ and Richard Norris, who look favorably on sterilization, while Chas. C. Norris rarely finds indication for the operation.

The indications for sterilization versus contraception need clear definition and discussion, and will be fully discussed in a later paper. If only decompensated hearts and pronounced tuberculous processes, for example, are now to be considered warrants for sterilization, it may not be forgotten that these patients are not good subjects for laparotomy.

This induced Dickinson¹⁰ (Fig. 11) to study simpler methods than opening the abdomen. Somewhat extensive experience with the nasal cautery electrode in obliterating chronically infected urethral glands,

in destroying nabothian cysts, and shrinking hypertrophied granular cervix surfaces led him into the far corners of the uterine cavity to apply the hot wire loop there and stricture the bristle-sized opening by a circular contracting scar. The earlier cases were before the days of tubal inflation and therefore not proved. Since the gas or air test came in he has had only eight cases. In one lopsided uterus

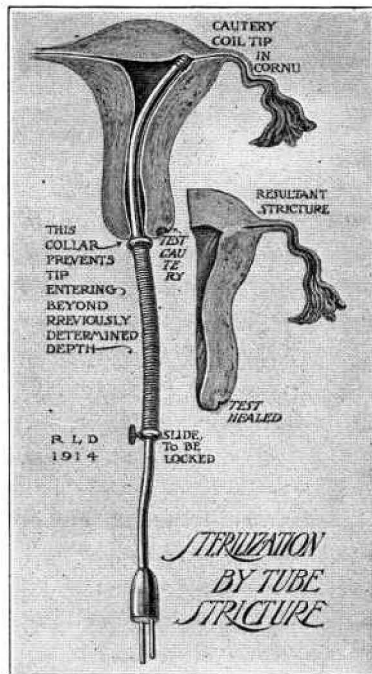


Fig. 11.

he can find but one angle. One other, with a 20 to 30 mm. exit pressure, fails to shut off. The others stand 200 mm. The method is submitted as rational.

BIRTH CONTROL CLINICS

Contraception has been busy reversing the law of survival of the fittest. For fifty years the educated, the thrifty, and the self-controlled have been increasing their precautions to limit their progeny, while toward lessening the indiscriminate breeding of the less fit and its world menace (by giving preventives to the poor) there have been only four systematic attempts.

Holland.—The “Nieuw-Malthusian Band,” under Dr. Rutgers, has for over forty years “trained” women of the lower middle class, for a fee of about six dollars, by a few lessons and a reasonable pamphlet of instruction.²⁷ They fit Mensinga-type pessaries which are to be left in one night at a time, followed next morning, when removing, by a douche given with a large glass syringe. The “Band’s” printed list^{27b}

carries the names and addresses of three doctors, four midwives, and forty-three "practitioners." These are under no supervision by health authorities or the "Band" and decline to make reports to the parent organization. Instruction and pessary and syringe are given to any woman applying, for four to eight guilders (\$1.60-\$3.20), but there are several thousand small-fee members, mostly of the working class, who receive a rebate. The methods observed were none too clean. There is reason to believe that some of these "practitioners" induce abortions if their measures fail. The propaganda is largely on the basis of the economic indication. After delivery each Amsterdam mother receives a circular. The conservative and orthodox would appear to have been antagonized. The Protestant Queen, whose subjects are one-third Roman Catholic, is said by the opposition league²³ to only automatically endorse the "Band" as one among other national societies. The openminded Health Commissioner in Amsterdam stated that the government's attitude is officially neutral, but actually rather against it. There was no contraceptive instruction heard of in clinics or in medical schools.

Of the seventeen gynecologists and eight other doctors interviewed by our investigator, six favor the sheath and eight the vaginal cup, but none claimed for the latter above 75-90 per cent efficacy. Holland's experience therefore is very disappointing in the way of definite information, notwithstanding the propagandists' persistent exaltation of the Lowlands as a paradise of birth control, with "fifty-two clinics," located in "hospitals" and under the aegis of "medical associations."²⁴ Concerning the vote on indications and detailed experiences we shall report later.

London.—The Mother's Clinic, 61 Marlboro Road, was opened March 17, 1920, and reports about 4700 patients up to our investigator's visit in June, 1924. Entirely supported by Marie Stopes, her husband, and the large returns from her books, it is located in a middle-class neighborhood among stores, occupying two tiny rooms in a frame building, but with a pleasant atmosphere. It is open five mornings, three afternoons and one evening a week. Two midwives are on duty, but a woman physician attends once a week, and pathological cases are referred to her. Admission is free, but unmarried women are not accepted and women who have had no child are referred to physicians. For supplies a price list and pharmacists' addresses are furnished. The history calls for scant data and the records seen were not complete. Each patient is given a blank to report results and about one-half do so. The Stopes Pro-Race cup (of French or simplified Mizpah type), has a thick rubber rim and goes on the principle of snug suction fit on the cervix, and not on the idea of distending the fornices. Though in her book Dr. Stopes uses any argument to discredit other forms or methods for ordinary conditions, it was noted in her clinic that a large

sponge with olive oil was ordered, plus a quinine suppository, plus a douche with an enema syringe, but this may have been in a patient with "sagging muscles." The sponge, with vinegar, plus the suppository was also commended for a torn cervix. If the cap does not fit, the sheath is the choice, also for any woman with long vagina and short fingers unable to place the device.

Marie Stopes, Ph.D., is an authority, forceful, eager, critical and discursive. Her book²⁹ covers the ground very completely but also with very complete bias. She stated to our observer that the records of the clinic had not been analyzed but affirmed that she knew of only twenty to thirty failures with the Pro-Race cup. (The Walworth clinic has observed nearly sixty from the Mothers' Clinic.^{15a}) The attendant doctor likes the sponge-covered cup with quinine ointment. This clinic's "Research Council" with some fine medical names, has declined to foster any research,^{29a} though our English interviews brought general commendation of the idea.

The Walworth Women's Welfare Center, 153-A East Street, Walworth, S. E. 17, supported by the New Generation League (formerly the Neo-Malthusian) begun six months later than the other clinic, is in a two-story, frame building in the slums. It is open three afternoons and one evening a week and shows friendly, crisp, intelligent methods, under an upper class social worker superintendent, with an efficient woman doctor, a nurse, and a maid. Everything is scrupulously clean. The charge is one shilling, if able to pay, nothing if not; five shillings if it can be afforded, the pessary at two shillings, sheaths at nine pence. Mail inquiries are answered by a pamphlet. The methods used are about 70 per cent Mensinga, relatively large size (No. 70) combined with a non-greasy quinine ointment, the cup removed next morning, with douche before and after removal. The Matrisalus is fitted where the pelvic floor is relaxed. The sheath is ordered for about 15 per cent. The return visits comprise nearly half the attendance, the total about 225 a month. The record blank cards are excellent. Abortion is refused.

Dr. Norman Haire, who developed this work but is no longer in it, is very intelligent and well posted, but apparently addicted to round numbers.¹⁵ Havelock Ellis speaks well of him.¹² Haire said that he uses a boric-acid-lactic-acid-glycerine preparation for adjuvant to the Mensinga, which is placed dome side up. He stated that most doctors use too large a size, and that the cup is not suitable for torn perineums and retroversions, and that the Rout chinisol tablets often fail to effervesce.^{15a}

There is said to be a new pay clinic, the Wallace Institute, an offshoot under two women doctors. The views of leading medical men and women will be published later (with names suppressed by

request). The work of Dr. Stopes has brought out many forceful and apt expressions of opinion.

New York.—The clinic run by Dr. Dorothy Boeker next the office of Mrs. Margaret Sanger's Birth Control League began Jan. 2, 1923, in a room fitted up for simple gynecologic work on the upper floor of a business building, at 104 Fifth Avenue, in a loft section. A lay secretary receives patients and excludes all but those married and requiring contraception for the cure or prevention of disease. Five visits on the part of six members of our committee have given an impression of a desire to live up to the law and to stand wide open to inspection. There is alert and vigorous action morning and afternoon, five days a week—and no lack of publicity. Dr. Boeker is particularly well informed on contraceptive matters, and her pamphlet³ is a clear and explicit brief publication. Whatever its imperfections, this work is carried and reported with a research idea—which is novel in propaganda work. The history forms are full and well balanced but the entries often scant. Medical inspection or supervision or check-up must be trifling or absent. For follow-up, they depend on return of patients for the purchase of supplies. Twenty-one per cent fail to return or report.^{3a} The important published results are the successes with a combination of the Mensinga type soft rubber cup (Ramses, Lambutt, Dutch, Haire) and a chemical, or with a chemical alone, chinosol and acid in paste or effervescent tablet. The chemical has been employed alone largely because the vaginal cup can be obtained with difficulty. This report of twelve months covers 1208 patients with experiments numbering 1558 (but the items total up 1458).

The Voluntary Parenthood League of 19 W. 44th Street, New York, started in 1919, does no case work but is concerned wholly with attempts to alter the Federal law.³⁰ This labels as obscene and forbids transmission by mail and express (or importation) of contraceptive information or devices. The League's collections are \$12,000 this year. The Director is Mrs. Mary Ware Dennett. Its publication is the Birth Control Herald.

Special birth control clinics, widely heralded, may be required at present to furnish legitimate advice not otherwise procurable, and also to gather clinical evidence. But they seem needlessly costly,—let us say, in America, at eight to nine dollars a patient—when our ample obstetrical and gynecological outpatient services might be able to tender this care at seventy-five cents per capita.

The Committee's Experience with Clinics.—In attempting to determine what was the size and character of the problem we opened an office, not for examination or treatment, but for reference and record, supposing that there would be considerable demand,—the diagnosis having been made—to send women to institutions of high standing

for advice. But it was found that an intermediary was little needed inasmuch as most institutions could recognize proper cases and furnish the advice, provided their Trustees and Staff were willing, their doctors knew what to direct, and supplies were available.

It has taken more than a year to get a few leading institutions willing to make the study, to search out what advice is advisable to give them, and to develop supplies. The committee has worked with one nurse to visit settlements and institutions to make inquiries and to follow up, and one stenographer; with a short time library worker; with a doctor who was traveling consenting to undertake our foreign study, while an unpaid medical secretary gave odd times to getting the stuff together and summarized. We have \$4000 toward the \$6000 for local work for the year ahead and are offered for researches in sterility and fertility and for planting clinic studies elsewhere in this country and abroad, a dollar for every dollar we collect for such extension, up to \$10,000 for the year, or a budget of \$26,000 in all.

THE NEED FOR A CLINICAL STUDY OF CONTRACEPTION AND STERILITY—
SUMMARY

1. Our search discovers no investigation of "birth control" made in a scientific and ethical spirit and approaching the subject without bias. Review of the literature discloses a library of argument that condenses to a pamphlet of case histories.

2. Wide divergence of opinion exists, largely owing to the meagerness of clinical evidence and to prepossession on the part of observers. For example, opinions gathered by questionnaire from 64 gynecologists vary greatly from the experiences published by the three birth control clinics of London and New York.

3. The committee's investigation carried on in Holland demonstrates that this much quoted paradise of birth control is without clinics or clinical reports or consensus of opinion. Our English interviews show divided counsels, with no checking up of the returns from the two clinics. German authorities urge us to conduct a thorough-going inquiry. Russia is reported as starting some investigation.

4. The medical profession is not yet cognizant of any guaranteed contraceptive. In the very large number of cases where contraception works securely, as well as harmlessly and happily, we shall expect to find a choice rightly adapted to the particular couple, often with two measures combined or in sequence, and above all with attention to detail. It is our business to discover and define such conditions.

5. Sterilization by removal of the uterus prevents future pregnancies. Removal of the ovaries produces a surgical change of life. Both entail definite hazard, particularly to those most needing protection, such as patients with active tuberculosis or rheumatic hearts. Operations on the tubes are under question since the new insufflation tests

show reopenings. This test is now essential after all such operations. The simple, "non-operative" cautery sealing of the tubes is on trial.

6. Irradiation of the ovary calls for further experiment on dosage, on possible damage to future progeny, and risks of abortion.

7. Among ordinary contraceptive devices, some that are found reasonably efficacious among the intelligent are said to fail in half the clinic patients. Yet it is among these that the need is greatest. In one outstanding report from 1000 educated American women, 730 believed in the rightness of regulating pregnancy and practiced it without unduly lessening the number of progeny; in a dispensary series 41 per cent of the women had some knowledge of preventive methods, the restriction (above 4.7 children) being in proportion to their knowledge.¹⁷

8. The one contraception experiment supposed to be carried out on a national scale (the French peasant's withdrawal) has not yet been subject to medical case study regarding its effect on health and reciprocity. The forty year community experiment with coitus reservatus at Oneida was medically studied and the method apparently overrated.

9. Dependence on the plain douche and any douche alone is largely discredited.

10. Doctors and educated couples in America rely largely on the sheath. One large group shows failure in 12 per cent, whereas among the poor two clinics report 50 per cent failure in extensive series.

11. The use of the sheath calls for testing, lubrication, and ready access to a medicated douche in case of accident.

12. Among chemicals, suppositories make a lesser showing of protection than jellies and pastes and effervescent tablets with chinolol and acids, for which only 3 per cent failure is claimed, covering 837 cases in one clinic report.

13. Infection from stems within the cavity of the uterus is not infrequent.

14. The chief measure which puts the woman's care into her own hands, and is the main recommendation of students of birth control abroad and in this country is that form of soft rubber cervix cup distending the upper vagina which was originally devised by Mensinga, but is not sold here. This device, fitted by a doctor, used for the occasion, and in proper cases, (best combined with a medicated jelly) claims minimal failures and offers case histories. It should receive careful clinic tests—with patients who fall within the law—that is, where contraception is required temporarily or continuously "to prevent or cure disease."

15. In all methods details of technic are found to be of great importance.

16. Where permanent prevention of pregnancy is required, trial

should be made of the relatively simple method of sealing the tubes by the stricture that results from cautery burns of the minute intrauterine openings of the tubes.

17. The data should be collected under competent supervision, the physical questions by properly qualified members of the medical profession. The doctor is the person to select and instruct, because the need must be proved and the recommendations fit individual requirements and particular physical findings.

18. The Committee on Maternal Health, as part of a study of fertility and sterility, has carried on several steps of the investigation of contraception and has under way clinical, chemical and laboratory studies. These, in due time, with proper supervision and adequate professional collaboration and sufficient funds, should secure the facts.

19. The subject is susceptible of handling as clean science, with dignity, decency and directness.

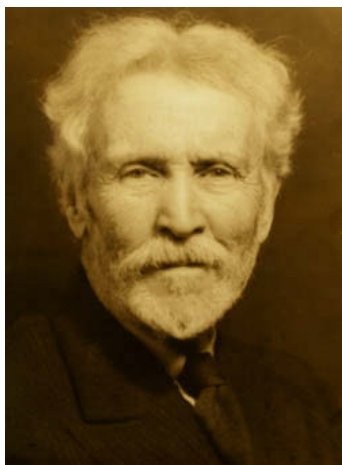
REFERENCES

- (1) *Aldridge, Albert H.*: Insufflation of Uterus and Fallopian Tubes, Report of 600 Cases. Examined by the Rubin Method, AM. JOUR. OBST. AND GYNEC., July, 1923, vi, 53. (2) *Bailey, Harold C.*: Effects of Irradiation on Fetal Development, AM. JOUR. OBST. AND GYNEC., May, 1923, v, No. 5. (3) *Bocker, Dorothy*: Birth Control Methods, Birth Control League, 104 5th Ave., N. Y., 1924, issued by Research Bureau, part of Mrs. Margaret Sanger's office; monograph of 31 pages, illustrated fully with photographs to scale, with descriptions and with addresses of manufacturers. Tables of 1458 trials on 1208 patients. (3a) Visits to clinic and personal interviews. (4) *Brown, Mgr. W. F.*: Report of National Birth Rate Commission. The Declining Birth Rate, London, 1917, 2d ed. p. 14, 393, 403, 450. (5) *Canterbury, Archbishop of*: Foreword in Florence E. Barrett's Conception Control, Murray, London, 1923, 27 pages. (6) *Cary, William H.*: Letters, Nov. 20, 1923, April 11, 1924. (7) *Chard, Marie Louise*: N. Y. Infirmary for Women and Children. Personal communication. (7a) *Cummins-Vaile Bill*: Joint Hearings before the Subcommittees on the Judiciary, Congress of the U. S. H. R. 6542 & S. 2290, April 8 and May 9, 1924, Serial 38, Washington Government Printing Office. (8) *Davis, E. P.*: Complications of Pregnancy, 1923, Discussion Am. Gyn. Soc., 1924. (9) *Davis, Katherine B., Ph.D.*: A Study of the Sex Life of the Normal Married Woman, Jour. Social Hygiene, Vol. 8, No. 2, Apr. 1922, Pub. No. 363, also (9a) personal communications. (10) *Dickinson, Robert L.*: Simple Sterilization of Women by Cautery Stricture at the Intrauterine Tubal Openings, Compared with other Methods, Surg. Gyn. and Obst., Aug. 1916, p. 203-214. (10a) Insufflation of Fallopian Tubes by Air and Handbulb. AM. JOUR. OBST. AND GYNEC., November, 1923, vi, No. 5. (11) *Dittler*: München. med. Wchnschr., 1920, lxxvii, 1495; Ztschr. f. Biol., lii, 72. (12) *Ellis, Havelock*: Letter and interview. (13) *Grotjahn, A.*: Geburten-Rückgang und Geburten-Regelung, Marcus, Berlin, 1914, 367 pages, many tables, no illustrations, good historical review and references, few technical details concerning methods, very well balanced and scientific, but recommends double condom. (14) *Guyon*: Étude sur les cavités de l'utérus à l'état de vacuité: Thèse de Paris, 1858, No. 48; fully illustrated from casts of cavity. (15) *Haire, Norman*: East Welfare Centre, Walworth, London, Contraception Technique—A Consideration of 1400 Cases, Practitioner, London, July, 1923, cxi, No. 1, 611. (15a) Interviews with the Committee's investigator and an Executive Committee member. (16) *Halton, Mary*: New York, personal communication. (17) *Kahn, Morris H.*: A Municipal Birth Control Clinic, Birth Control Review, Apr. May, 1917; N. Y. Med. Jour., Apr. 28, 1917, 464 dispensary patients. (18) *Kross, Isidor*: Letter July 13, 1924. (19) *McCartney, J. L.*: Studies on Mechanism of Sterilization of Female by Spermotoxin, Am. Jour. Physiol., January, 1923, lxxiii, 207. (20) *Mensinga*: Fakultative Sterilitaet; Teil II; Das Pessarium Oclusivum und dessen Application, (seventh edition 1900), second part, ostensibly a hundred cases, but really 49, 34 adequately reported. (21)

New York Obstetrical Society, Nov. 1923, Report of Committee on Regulation of Conception, AM. JOUR. OBST. AND GYNEC., March, 1924, vii, No. 3, p. 266, discussion p. 339. (21a) Individual responses to each question have been collated and tables made accordingly, both from Chicago and New York. (22) *Pemberton, F. A.*: Childbearing after Radium and X-ray Treatment, Surg. Gynec. and Obst., August, xxxix, 207-209. (23) *Pinkhof, H.*: Moet de Wekman Nieuw-Malthusian Worden, 1902, Van Rossen, Amsterdam, 19 p. 10 cent: by the President of the Vereeniging ter Bestrijding van het Nieuw-Malthusianisme, the organized opposition to the birth control league; with many prominent names. (24) *Polak, John O.*: Am. Jour. Obst., April, 1919, p. 467. (25) *Rout, Miss Ettie A.*: La belle discretion; publ. by author at 28 Queensboro Terrace, London, W. 2; 130 p., no illus. or statistics; advocates effervescent chinisol 0.2% tablets. (25a) Two Years in Paris, 1923, 52 p. mainly concerned with prevention of venereal disease. (26) *Rubin, I. C.*: A Manometer and Flow-Volumeter for Transuterine Peritoneal Inflation to Determine Patency of Fallopian Tubes in Cases of Sterility, Am. Jour. of Roentgenology, August 1921, viii, No. 8, pp. 459-461. (27) *Rutgers, Dr. J.*: Heerenveen, Holland (a) What Every Married Couple Should Know, the Hague, 15 pp. 1917; (b) Printed list of birth control practitioners throughout Holland, Nieuw-Malth. Band, Hoofbestuur, 1923. (28) *Siegel, P. W.*: Freiburg, Wann ist der Beischlaf befruchtend? Deutsch. med. Wehnschr., 1915, No. 42, 3 Bedeutung des Kohabitationstermines f. d. Befruchtungsfähigkeit der Frau, München. med. Wehnschr., 61, No. 21. (29) *Stopes, Marie, Ph.D.*: book on Contraception, publ. by Bale, London, 1923: illustrations, history of movement, report of the Mothers' Clinic: an important contribution. (29a) Personal communications and interviews. (30) *Worthington, George E.*: Restrictions on Birth Control; Social Hygiene, 1923, ix, No. 8, p. 458. A full statement of the law, Federal and State. (31) *Hardy, G.*: Question de la population, illustrated book, published by author, 29 Rue Pixerecourt, Paris; fullest consideration in French language, a "free love" point of view and rather indiscriminate endorsement of several measures. Also small illustrated pamphlet in English.

438 WEST 116TH STREET.

(For discussion see page 654.)



Robert Latou Dickinson
(1861 - 1950)

DR. ROBERT L. DICKINSON, New York, N. Y., presented a paper entitled **The Need of a Clinical Study of Contraception**. (For original article see page 583.)

DISCUSSION

DR. N. SPROAT HEANEY, CHICAGO.—I can only endorse the need of such a clinical study as has been outlined. We all have occasions when we wish to advise contraceptives and it will require statistics to furnish us with safe recommendations.

DR. E. P. DAVIS, PHILADELPHIA.—I believe there is no successful method for preventing conception and when people ask me I tell them that fact. I state that abstinence is successful, but as it is unnatural it may lead to unhappiness. Then they ask what can be done. The cases divide themselves into two classes; first, the intelligent, educated persons of high moral principles. An example of that is a wife and husband, the husband a Professor in a University, the wife a former teacher, his second wife. There are children by the first wife and by the second wife. He has no hope of increase in salary, there are no reserve funds available, they have all the children they can educate and care for. The woman told me she had talked to her woman friends and what she had heard was disgusting and more or less indecent, and asked if I would sterilize her. I said, "With the consent of your husband and yourself I will do so." That illustrates the educated persons of the community who are at the present time in a very bad financial condition owing to small salaries paid by institutions and the increased cost of living.

The second group is much larger, the hospital cases where the man, even with the prosperity of the wage earner, may have reached the time of life or his physical condition may be such that he can earn no larger pay. The woman has been more or less damaged by childbirth and they are going to criminal abortionists. There the Social Service is called in to make a financial investigation of the family. The physical condition of the woman is next gone over and the question determined whether general anesthesia should be used or local by infiltration or nerve blocking. If the woman be pregnant she is told that she will be carried on, if she is in good physical condition, to the termination of that pregnancy but after that she will be sterilized by removal of the fallopian tubes and appendix as well.

In my experience sterilization has been in selected cases successful in moral and physical effects, in all that could be desired, and in that I have faith, which I have not in any of the methods I have heard of up to the present time. I have, however, great faith in Dr. Dickinson and the medical profession must meet the question fairly. We must take the matter into our hands and find whatever truth there may be in it, but it is a very broad question, an economic question, and in some respects a religious and racial question.

DR. CURTIS F. BURNAM, BALTIMORE, MD.—What is the legal status of a doctor who does a sterilizing operation for economic reasons, not for medical reasons? Suppose such patients afterward decided that they had made a mistake in having

such an operation done and sought redress in the courts? Can I have any information as to what the courts might decide under such circumstances?

DR. E. P. DAVIS.—I am informed by legal advice that the law governing such procedures requires, and it is our custom in the Jefferson Maternity Hospital, that the woman sign her written permission authorizing the surgeon to perform any obstetrical operation necessary for the life of her and her child; obtaining this on her admission we need not delay. When it comes to these special cases I am informed that the written request of husband and wife would hold.

DR. FRED L. ADAIR, MINNEAPOLIS, MINN.—In cases where it seems necessary to perform sterilization, does Dr. Dickinson prefer a major operation for salpingectomy or a vasectomy, which is relatively simple?

I have never found a husband who would submit to this; he prefers to have his wife submit to the major operation.

DR. HAROLD C. BAILEY, NEW YORK CITY.—I believe that Dr. Dickinson's paper is very timely. However, it seems to me that we should decide clearly before we consider this resolution, whether or not we have a right to interfere from a social or economic standpoint. In New York State among American born children the death rate equals the birth rate, and among the foreign born the death rate is just a little over one-half of the birth rate, and it strikes me that the type of people who are going to make use of this contraceptive information for social and economic reasons belong to the educated and higher class of society. I think we should definitely decide that we ought to consider this subject from the medical and physical aspect and not from the social and economic standpoint.

DR. C. H. DAVIS, MILWAUKEE, WIS.—During the past year I have checked up on each patient who has come to me in a pregnant condition and found that 10 per cent of a highly intelligent class of woman had become pregnant while using a contraceptive which they had believed for some years was keeping them from becoming pregnant. I think it is undoubtedly the case all over the country that these women who have had three children say, or four, do not voluntarily become pregnant. So far as we know at the present time there is no 100 per cent safe contraceptive unless one or the other of the parties is either sterile or potentially sterile. The sheath, I believe, if it does not leak, is undoubtedly the safest protection but I find that the husbands do not test the sheath before and after, and unless this is done there is no certainty. If they are instructed to test the sheath before and after, and then have the douche used in case of a small leak, the sheath is, I believe, the nearest perfect protection we have today, but there is certainly much need for study of the subject.

DR. DICKINSON (closing).—Most of the women who need sterilization are bad surgical risks, therefore I have tried to find some method that would work safely and simply. The use of the nasal electric wire electrode passed up to the cornua was the result of many years of using the cautery for obliterating cervix cysts and the like. My series of cases dates back to the time before we routinely did insufflation of the tubes. Since that time I have only had two patients on whom I felt justified in trying to close the tubes.

Like Dr. Adair, all the husbands I know of have refused operation, and when you come to that it is not quite fair to put it up to the man. Perhaps he has a tuberculous wife. He may marry again after her death; it is not fair to make him sterile.

I hope you gentleman will believe that this is not propaganda; this is a serious scientific attempt to get at the facts.