WHAT EVERY MARRIED COUPLE SHOULD KNOW.

Introduction.

Considerations of health and the proper rearing of children generally demand that married couples should avoid frequent births. For this purpose certain precautions have to be taken which at first may seem somewhat troublesome, but which do not really spoil the intimacy of wedded life. Those who, for their own sakes or to help others, wish to know about birth-control, upon which doctors now are questioned daily by patients, will find the necessary information in the following pages.

The husband can use condoms (also called envelopes, sheaths preventives or French letters), or the wife can use a pessary. Withdrawal is also a secure method when the husband has, or acquires, sufficient control of himself. Sponges or other plugs may be used by the wife, but they have the great disadvantage of requiring her to take an injection immediately after connection. The most trying method, and the least reliable, especially when there is a strong affection between husband and wife, is complete abstinence from intercourse. In each of these cases a married woman should possess a good syringe, because cleanliness is an essential part of every preventive method.

The husband and wife should be in agreement upon all these matters. But when they are not, each can act according to his or her own principles. The husband can use condoms without his wife being aware of it, or she can wear a pessary without his knowing.

The methods here recommended are not injurious to health and are not forbidden in any civilised country either by moral codes or by law.

Indeed, the cleanliness which they enjoin is alone an immense benefit to women. Nor do these methods cause permanent sterility and prevent a couple having more children when they wish to. Operations which cause permanent sterility (such as vasectomy in man which obliterates the vas deferens, and fallectomy in woman which obliterates the Fallopian tubes) will not come in for discussion here. Surgeons in Europe will still only do these for diseases.

Are preventive methods infallible?

Of course none of these methods is absolutely infallible; any single carelessness or forgetfulness may cause a failure. In serious cases, therefore, when pregnancy would probably mean the death of the mother, she should use a pessary and the husband a condom. Where these appliances cannot be had, the husband can practice withdrawal while the wife uses a sponge and takes an injection immediately after, with one of the solutions mentioned on page 15. These combined precautions are practically infallible, at least if each partner is as careful as if the other were taking no precautions.

As the ordinary preventive methods are not infallible, couples should begin them before they have too many children. If a failure happens, they should find out the reason, in order to avoid repeating it, rather than begin a new method and perhaps have a failure with it too.

No abortion!

When the doctor or midwife who examines a woman in labour inserts the finger (moistened with a little bit of soap-cream) as far in as possible into the vagina, a small protuberance is felt like the tip of a finger. This protuberance is the lower part of the womb (uterus) which is the little bag or nest where the human egg is hatched. In the centre of the protuberance is a tiny hole, which is the opening of the womb.

If the male fluid (the sperm) gets into the womb, the woman can no longer prevent impregnation, even if she immediately takes a vaginal injection. To inject solutions into the womb is always dangerous, as it may cause serious haemorrhage and fever. Drugs and stuff advertised for reestablishing menstruation are either useless or most dangerous.

The following preventive methods simply aim at preventing the male fluid from entering the tiny opening into the womb.

Some practical hints.

The management of rubber articles (such as a pessary and condoms and the rubber tubes of syringes), requires special care. They should never be folded up when they are put away, for they will afterwards break in the folds. They must be kept in a dark and damp place, cool but frostfree — for preference in a cellar. But even so they deteriorate when kept a long time.

For washing and desinfecting rubber articles, use soap or corrosive sublimate or formalin. Carbolic acid must not be used, and even a solution of lysol is only permissible for a moment.

Rubber articles should never be moistened with any greasy substance such as fat, oil, vaseline or paraffin, but only with water, soap-water, soap-lather or soap-cream — easily prepared thus from the soap-powder used for medical purposes: take equal parts of soap-powder, glycerine and water, first shaking the powder and glycerine together and then adding the water and shaking again. (The skin condoms, however, must not be treated with soap, but rather with any fat or oil.)

Instead of moistening the condom before use, it may be preferred to powder it with lycopodium-powder, as used for kid gloves and for infants when they are moist in the folds.

MEANS TO BE EMPLOYED BY THE HUSBAND.

Absolute continence.

Abstinence in wedded life is occasionally necessary, for instance when the wife is ill or requires complete rest; and some temperance and restriction must always prevail in conjugal relations, and are a holy duty. But why should married persons deliberately bring unwanted unhappines and injury upon each other by too prolonged abstinence and by the over-excitation of absolute continence? In any case, even if a couple decide to live in permanent continence, the wife should take care to have a syringe at hand, as the husband may easily be overcome by their mutual affection and natural desires.

Periodical abstinence.

There is a popular belief that avoidance of intercourse not only during the days of menstruation (which is perhaps the oldest method of reducing the number of births) but from a week before to a week after menstruation, prevents impregnation. This régime however is most unreliable.

A girl may be impregnated even before she has had her first period, and a woman can fall pregnant again immediately after a confinement or a still-birth. A woman cannot regard herself as sterile until after menstruation has gradually ceased at about 50 years of age; at least when this fact is not caused by illness. During lactation the chances of falling pregnant are lessend, but there is far from certainty in this case either.

Karezza.

Just as it is possible to keep back one's tears when deeply moved, so can some men have prolonged connection by using will-power to hold back emission of semen. This method of intercourse without impregnation has been called carezza or Zugassent's discovery, and it requires very considerable effort of the will and practice. But this variety of continence can also cause nervous trouble. It may also fail, unless the husband uses condoms, or withdraws if he feels his semen about to escape.

Withdrawal.

When no other methods are available, the husband can avoid impregnation, if he quickly withdraws completely out of the vagina just when he feels his semen about to escape. But not a single drop must touch even the wife's external genitals, otherwise she may become impregnated. This method (interrupted coition) has the great advantage of requiring no apparatus or previous preparation, and it costs nothing except the effort of self-control. When the man can do it without too great nervous effort, and when the wife is not left too much unsatisfied, this method is not injurious to health.

If the wife suspects that some semen has escaped in or near the passage, she must immediately take an injection — and even this may be too late. In the event of further intercourse being desired within twenty-four hours, the husband of course must wash himself thoroughly and with the foreskin drawn back.

Condoms.

When the male organ is covered with a condom (like a finger in a glove) there is no chance of the woman being impregnated if there was no hole in it and if it has not torn or burst during coition. To prevent these accidents: 1) only reliable qualities should be used; 2) they should not be used too often; 3) they should be powdered, preferably with lycopodium powder. To facilitate entry the woman can moisten her parts with soap-lather or soap-cream — or, when skin condoms are used, with some fatty ointment.

Condoms may be obtained in shops which sell surgical articles, and in chemist and druggist shops. The cheapest qualities are generally too small; the most expensive are often too thin. It is better to get them on the large side, for they shrink after each occasion. Never have only one at hand; yet do not have a large stock, for they get perished if kept a long time.

Directions for use.

When the condom is put on, a space must be left at the closed end to catch the semen, and it should be unrolled on the penis as far as it will go, pressing out any air bubbles. So you don't want to have the condoms that have a special end or receptacle which catches the semen.

After use the free space at the end should contain all the semen ejected. If it is empty it will be evident that it must have torn, and

the wife should immediately take a large injection, though it may be too late. As the husband is drawing out, the wife herself can generally tell wether or not the end of the condom is empty; or he can feel it with his fingers, or by half filling it with water. When it is not torn, injections are unnecessary.

A condom of good quality will generally do for six times; strong kinds may serve oftener, thin ones not so often.

When a condom is to be used again, it must next morning be carefully washed, and then dried inside and outside by pressing it gently in a clean soft towel; then it should be blown into, in order to remove the folds and to make sure again that there is no tear or hole; and, lastly, it may be powdered inside and outside with a little lycopodium powder. Then it may be opened by means of four fingers and be rolled up again, in readiness for further use.

When a condom was too large, it should be left unrolled for several days. An elastic band may be used if the condom be too large to stay on, especially if she rather wishes not to be aware of a condom being used, and he therefore fears to leave it in her female passage; though the variety of condoms made with a ring round the open end serves the same purpose.

If, on the contrary, a condom be too small or has become so by use, it can be stretched for a day on a similarly shaped piece of wood, on the chimney of a lamp, or on a medicine bottle. A newly manufacured condom shrinks more when unrolled, than one that is not.

The seamless or silk condom.

Seamless condoms are made from a softer kind of rubber and are highly finished and glossy as if they were silk. They are more elastic than the ordinary rubber ones, but they are less resistant and wear more quickly. They can be had, however, in all thicknesses — from extremely thin so that they are nearly imperceptible and tear easily, to so thick that they may last for a year, but then they are rather inconvenient for use. The most durable variety is the Paragon.

Even when they are sold unrolled (the so-called „neverrip") it is better to powder them with lycopodium and roll them up before use. Being so highly polished they tend to adhere; in that case the husband should also powder himself before putting on. Recently a variety has been made which, while being soft, are not so extremely glossy, but more like velvet, and thus not so liable to cleave to the skin.

All the directions for use are the same as already given for the ordinary rubber condoms.

The skin condom.

The skin or gut condom, made from the coecum of lambs, is very different from the others. At first only skin condoms were made. The feel of a skin condom is not so cold and not so cleaving as the rubber varieties. But they are not elastic and they cannot be rolled up; so they must be chosen on the large side. They are somewhat hard, like paper, especially after repeated use; but they become softer on powdering with lycopodium or after moistening with water. When dipped for a few minutes in equal parts of water and glycerine and then wiped off and powdered, they remain soft as long as the glycerine is not washed out; if dipped in equal parts of glycerine and 1 per cent solution of carbolic acid, they remain not only soft, but they are also preserved from putrefaction.

A skin condom when not very thin, is durable and strong and can last for half a year, especially when it is not too much or too often moistened, but cleaned by wiping only. The skin condom is not worn by time, when only kept free from insects and humidity. Better than all other qualities they are fit for mail-expedition.

Their chief objection compared with rubber ones is that they often have some defect even when new. So they must be examined against the light to see that no holes have been trickily glued over with little bits of skin, and be blown up gently but steadily, feeling on the other hand if no air escapes through any hole. If not, there is no further danger. Not to lose the little silk ribbon, it is well to stitch it to the open end by means of a silk thread and needle.

When one can readily and cheaply get cœcum, say from the butcher, one can easily make a condom for oneself. They can even be made from other parts of the intestine also, though in this case there will be a knot at the end. But, when moistened, this does not cause any inconvenience. The intestine is cleaned thoroughly, as if for sausages, and then blown up and tied and hung up to dry in the wind. Thus dried it can be kept for years. For use it must be cut to the required length — but not cutting across. So prepared it cannot be used without moistening it thoroughly and wiping it off and powdering, as already mentioned.

The advantages of condoms.

The condom is a preventive that does not require any personal instruction; only a syringe is wanted, for when the condom should tear in use, an immediate injection must be made, in order to prevent a failure.

It is the only preventive which greatly diminishes the risk of infection in cases of bad white discharge (leucorrhoea) or of venereal disease. In such cases it is better to have a thicker condom and to use it only once. If it be used again, it must not only be washed but also thoroughly disinfected with a rather strong solution of corrosive sublimate (perchloride of mercury; see pag. 15). In all dubious cases the husband should also cleanse the parts with the same disinfectant, and the wife take an injection with it. Moreover, in severe cases, they should smear their parts before connection with some disinfectant ointment — for instance. 10 grammes of calomel (subchloride of mercury) in 30 grammes of soft lanoline.

A serious drawback however against condoms is, that the wife is so helpless when the husband omits or refuses to use it. If he be drunk and she has no other preventive herself, she may manage, as if caressing him, to apply one, in order to prevent the birth of miserable children. At all events she should always take care to have one or two ready for use.

There is also a very special variety of condoms to be used by the wife, who introduces it before connection, but they are absolutely unpracticable.

So it is a blessing for women, that there are other preventive methods which can be used by her, even without the husband's knowledge. They will now be referred to.

MEANS TO BE EMPLOYED BY THE WIFE.

The wife may prevent conception by passing into the vagina the *occlusive pessary* of DR. MENSINGA. If this does not remain in its place, she may rather use that named *Matrisalus*, which is more curved. If this also does not remain in place, the husband should use a *condom*. If, finally the husband will not use the means, the wife may use the *tubular pessary*, or, for want of a better, the *sponge*, this latter being the only method available in countries where there are no medical practitioners, or others persons knowing this business, who can choose and teach women how to place a pessary.

The **Mensinga pessary**, also called simply „the ring", is a circular watch-spring ring, closed by a rubber membrane that is curved like a hemisphere, designed to cover the mouth of the womb, partitioning the female passage as a diaphragm, without giving any inconvenience for the husband.

The special advantage of the pessary is that it requires no care whatever during the night, and it is also an essential point, that the husband need not to be consulted in the matter. Neither he nor she is aware of its presence; nor does it give any obstacle when going to the watercloset. If it causes the slightest discomfort, it is not the right size or it has been wrongly placed; thus discomfort means that it is not reliable so. Only we must warn every woman, not to hold it in longer than during one night.

When properly used, a pessary can last for years. But if the slightest defect occurs, either of the rubber membrane or of the watch-spring which is inside the wall, a new pessary must be got and probably a slightly larger one.

Directions for use.

The pessary must not be worn during the day. The wife must introduce it every evening, not just when going to bed, but preferably even before the husband's return. During the night it need not to be touched, unless there be danger of the instrument being ill placed. Next morning it must always be withdrawn at a convenient time.

If there has been intercourse, the morning procedure is as follows. Take a small injection to wash out most of the semen. Withdraw the pessary while standing upright or kneeling. Lie down and take a large injection to clear out thoroughly every fold and corner. Clean the pessary carefully and see that it is all right for next time. Wipe it gently and put it away in a drawer without wrapping it up.

During menstruation a woman should entirely abstain from intercourse, and should not introduce a pessary. It may chance however, that on withdrawing it, she finds that the flow has started; nevertheless, if there has been intercourse she must take an injection as usual.

The more carefully the pessary and the injections are used, the longer will a woman continue free from pregnancy, for one carelessness can make a failure. Whenever she has any difficulty in the management of the pessary, she should again consult the practitioner or nurse who has fitted and instructed her.

The first instruction.

The only trouble is, that the pessary gives no security when its size has not been carefully chosen and its introduction practically taught by a doctor, midwife, or other lady who knows that business.

The sizes are indicated by numbers representing the diameter in centimetres. The aim is to get the largest size that can be fitted without discomfort, for this means the greatest security. A woman who has had one child will require about a $7^3/_4$; after further children larger sizes up to $9^1/_2$. For women who have had a child a $7^1/_2$ m.M. seldom suffice, and smaller than that never.

When for considerations of health or economy a newly married couple do not wish a child for a year or two, the pessary must be chosen some weeks before marriage so that the discomfort which is often felt at first, may have passed off. In such cases size 7 to $7^3/_4$ will do; but soon after marriage a larger size will be wanted.

To introduce the pessary it should be moistened with water or made slippier still with soap-water, soap-lather or soap-cream, and the genital parts too at the first instruction.

Before introducing, the woman should have been to the water-closet. Then, having freely loosened here clothes or undressed, she should get into an easy stooping position with the thighs apart. To slip in the pessary more easily, the ring may be pressed between the finger and thumb into a figure of 8, but gently in order to avoid breaking the spring inside it. It is slipped in vertically, in accordance with the longitudinal opening of the vagina. The first part introduced is pushed backwards, while the last part is pushed upwards, so that it disappears entirely behind the pubic bone which is felt in front. By hooking the finger behind this bone, the front part of the pessary should be pushed as far as it will go; not backward but rather to the front, and the higher the better. It does not matter which side of the membrane is facing upwards or downwards.

When first introduced, the position of the pessary must be carefully examined by the practitioner. The essential conditions are as follows:

1. There should be no space between the pessary and the pubic bone, not even when the pessary be pushed back as far as possible.

2. The practitioner should feel the protuberance of the womb covered by the membrane of the pessary.

The pessary must satisfy these conditions; the practitioner will as a rule try larger and larger sizes until both conditions are satisfied.

The greatest difficulty is, when the womb comes far down into the vagina; for when the pessary is now introduced, it may happen that it does not cover the protuberance of the womb, but merely catches the side of it and pushes it back. In such cases the pessary must not only be introduced backward as before, but more downwards towards the anus, to make sure of getting it in below the protuberance of the womb — the whole object of the pessary being to shut off the womb from the vagina. Furthermore, in this case, the pessary should be pressed together so strongly between both hands, that it can be introduced not in accordance with the longitudinal opening of the vagina but across, and always in the above said direction. When the forgoing procedure will not succeed with the woman stooping, it will go better if she lie down on her back. In cases of extreme difficulty, the pessary can be introduced by the aid of special little forceps (forceps matrisalus) which never fail. Here we must repeat, that it is essential to choose always the largest pessary that can be placed. For just in the case now mentioned, a small one can easily be introduced leaving the mouth of the womb uncovered without the woman being aware of it; a larger one in such case would only go in half way, but then she would feel that it was wrong.

When a pessary is found which satisfies the conditions mentioned above, it must next be proved that the pessary remains in its place when the woman stands up with thighs apart and also when she presses down as if in labour. It may be found that the pessary has descended, so that a space can be felt between it and the pubic bone. If so, a larger one must be tried. A very small space can at last be admitted, on condition that the husband be careful not to displace the pessary by entering just into that space; and she also can push the pessary upwards every time just before connection.

If all sizes of the Mensinga-pessary that can be introduced, descend in this way, the **matrisalus pessary** will have to be tried. The only

address where this curved pessary and the matrisalus forceps (already mentioned) are to be had is Evens and Pistor, Cassel, Germany. This make is more difficult of application, for care must be taken that the convex side is upwards and the curved part just in front, to correspond with the curved part of the pubic bone. It also has the disadvantage that it does not pass so easily the mouth of the womb; this is why forceps of the same name go along with it. It has however the great advantage that it does not come down so easily. Directions for use are the same as for the Mensinga-pessary.

In the rare cases that this pattern also comes down, and always when neither the Mensinga nor matrisalus fits perfectly, or when the woman cannot learn their management, the husband should use **condoms.** If he objects, she might use the tubular pessary.

The **tubular pessary** does not close up the whole circumference of the vagina, but merely covers the protuberance of the womb like a cap. For greater security it can be filled up with yellow vaseline before being slipped in. But even so, it has the great disadvantage that it may so easily be ill placed without the woman being aware of it!

Before introducing it, the woman must first insert her finger high up and feel the protuberance of the womb. She than slides the little pessary up to and on to it, till it adheres round it like a sucker. If it is not a round one, but an oblique one, the larger side should enter first. It must be so placed, thal if the husband touches it at all during intercourse, he will only touch the end and not the sides. When using a tubular pessary for the first time, the husband should do withdrawal; then the wife should examine to see if the pessary has remained in place all right; if it has not, it is unsafe and should not be tried again.

As soon as possible after connection the wife should take an injection, then remove the pessary, and then in a lying position take a large injection with one of the solutions given on page 15.

The smaller pessaries with a large border (much used in Paris and London) are applied in the same way. A tubular pessary that grips very well, is obtainable from J. BARIAN, 57 Rue des Couronnes, Paris XX. (Price 3 francs)

The Sponge.

If none of the methods already described be applicable, the woman may use a sponge or a piece from a large sponge. The sponge, when wet, must be as large as the Mensinga pessary that fitted best, so

that it will securely plug up the end of the vagina and thus shut off the protuberance of the womb. Thus it is better to be too large than too small. It must also have a fine ribbon or tape passed with a needle across the sponge and firmly fastened to it, with which to withdraw it after use. As a sponge loses its elasticity and also becomes smaller by length of time, it must now and then be renewed. After use it must always be carefully washed and desinfected.

Every evening the sponge must be introduced, moistened first with water and then perhaps with a little bit of soap-lather. It is quite essential immediately after connection to take an injection, then to pull out the sponge, and finally to lie down and take a large injection with one of the solutions given on page 15. Otherwise the sponge method is unreliable, for the husband may have displaced it, especilaly if it was too small.

A plug of cotton-wool or a rosette of silk are sometimes used instead of a sponge. But these are unreliable because they cannot be introduced when dry, and when moistened they have no elasticity to make an effective plug.

Lastly, there are instruments made to be introduced actually into the mouth of the womb — such as a sterilet, a nail with a large head. These are very dangerous, for they easily cause injury and severe inflammation, being rather a method for abortion.

Chemical methods.

Still more uncertain than the sponge are *vaginal suppositories*, often called soluble pessaries, such as soluble pastilles, cones, ovules, etc., which are alluringly advertised and rather expensive. They dissolve when introduced into the vagina and thus liberate the chemical which they contain, to kill the spermatozoa in the semen. One or several of them are introduced as near as possible to the protuberance of the womb about five or ten minutes before connection, with the hope that they may melt there at the right moment and at the right spot. They can easily be made at home. A little piece of white soap might do as well, especially if a sponge be pushed in after it. An injection should be made soon after connection.

The same chemical substances in *powder form* can be blown into the vagina by means of powder-blowers, like the atokos and others. But neither is this method very reliable.

As chemical substances can only act when completely dissolved, it is often preferred to inject some spermaticide *solution* (preferably a viscuous one) immediately before and immediately after connection. The various solutions mentioned on page 15 are spermaticides and are probably as reliable as others more advertised and expensive.

The great objection to all these chemical methods is that just during connection the wife is so badly protected. If the injection could be made simultaneously with the husband's ejaculation, it would be more reliable; but it is too difficult and troublesome to do this.

Therefore it is always better to have some mechanical obstruction to prevent semen entering the mouth of the womb (condom, pessary or sponge), and to use a chemical injection when the condom has torn or when the pessary and sponge are taken out. Thus one gets double security.

Injections.

Injections are always the most important part of the woman's sexual hygiene. They do not by themselves form a reliable preventive method, but they are indispensable for the reliability of all other methods and, if taken immediately, they counteract any mistake or accident that occurs.

The simplest and surest instrument for injections is a large, straight **glass syringe,** to hold 60 cubic centimetres of liquid. Before using, the piston should be imbued with castor-oil or smeared with vaseline. The solution to be injected is drawn up gently into the syringe from a cup, and the piston should fit so well, that the syringe can be held vertically without any of the solution escaping.

Other varieties that may be used, are the **irrigator** which is hung on a nail high up on the wall, or an **enema syringe** when fitted with a vaginal nozzle and only used for this purpose. Compared with the glass syringe, these require a much larger quantity of the solution (about a litre) which must therefore be warmed in winter or if the woman be very sensitive. The nozzle should be long enough (15 to 20 centimetres), and not too curved, to reach all the vaginal folds.

To make a reliable injection, the woman should lie down on her back with the thighs apart and introduce the syringe or nozzle as far in as possible and move it about freely in order to irrigate all the folds and spaces of the vagina. When a curved nozzle is used, it should be turned about in all directions, and especially backwards, otherwise it may only irrigate the folds in front and miss the most important recesses behind.

The least reliable syringe is the **rubber pear** which is liable to inject little or nothing more than air. They are only reliable when they have a vaginal nozzle. and when they are used lying down.

What solution should be used?

Water alone is not reliable, so one of the following solutions must be chosen.

Any weak acid solution — for instance equal parts of **vinegar** and water, or a solution of citric or tartaric, or any other acid, diluted to the same weakness.

Any astringent solution — such as a 1 per cent of **alum,** i. e. a table-spoonful (10 grammes) of alum powder in a litre or large bottle of water. This injection is also good for white discharge (leucorrhoea). It must not be used any stronger, otherwise it would make the vagina dry and hard.

Any disinfectant — such as **corrosive sublimate** (perchloride of mercury) in a solution of 1 in 2.000. This is easily prepared by getting 1 gramme tablets of perchloride of mercury. Dissolve one tablet in 100 grammes of water in a medicine bottle, marked „Poison"; then mix two tablespoonfuls (20 grammes) of this strong solution in a litre or large bottle of water. This diluted solution is also very useful for leucorrhoea and even against venereal infection. Only the diluted solution must be used, otherwise the vagina will become dry and hard. But when a disinfectant is specially required for the hands or for condoms, sponges, etc., one tablet in 2 litres or in a wash-basin of water may be used. Even the weak solution is too poisonous to use constantly for injections, especially if injected at night in a lying position when much of it may be absorbed into the body. Therefore the perchloride solution must be alternated now and then with other solutions.

Lysol in ½ percent solution, i. e. half a tablespoonful in a litre or large bottle of water. It is something like carbolic acid and soap, so it is bad for rubber articles (condoms, pessary, etc.), but useful for sponges, etc. It helps to soften the vagina if it has become dry and hard with the alum or perchloride injections. Lysol is painful when it is used much stronger than a ½ per cent solution.

When nothing else is at hand for an injection, **soap-water** can be used. When strong enough to feel slippery, it acts as a powerful spermaticide; but it is rather painful.

In the extreme case of there being no syringe at hand and yet an injection be urgently needed, the woman must lie down on her back and take a little bit of **soap** between two fingers and push it up as high as possible and move it about in all directions. This also can be done before and after connection.

The Hague, (Holland) 1917. DR. J. RUTGERS.