unfortunate one, since, as I have said, with rare exceptions all cases of anaemia, other than pernicious anaemia, are microcytic, and to appear to limit the term to one specific form seems to me inaccurate and unscientific. I see no adequate reason to depart from the established and sufficiently accurate name "simple achylic anaemia."

The condition is met with much more commonly in women than in men, usually between the ages of 30 and 50, and in some it is associated with varying degrees of menorrhagia. So far no features of the blood have been described which would distinguish it from any variety of severe secondary anaemia. The treatment is generally straightforward and satisfactory. Full doses of iron, with or without hydrochloric acid and pepsin, usually produce rapid amelioration. Ferri et ammon. cit. in doses of 20 to 30 grains three times a day has been the form I have employed. This is in my experience the blandest and most easily taken form of iron, but it has long been recognized that it must be given in full doses, and that doses of less than 20 grains are much less effective in bringing about an improvement. I have tried the addition

of small doses of copper and manganese without any apparent benefit, but small doses of arsenic and of digitalis do appear to increase the effectiveness of the iron.

I should like to add that preparations of liver and of stomach have no special effect in these cases. In pernicious anaemia there is a definite and rapid response on the part of the bone marrow to treatment with these preparations as shown by the appearance of a high proportion of reticulocytes in the blood, but these cases of simple achylic anaemia show no such reticulocyte response to treatment with liver or stomach. I resent the action of some of our manufacturing chemists in pushing on the market special and expensive combinations of liver and stomach with iron for the treatment of such cases, which are no more effective than the simple and inexpensive pharmacopoeial preparations.

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CONGENITAL ABSENCE OF THE VAGINA

BY

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Operative measures for the formation of an artificial vagina are undertaken either to rectify a congenital abnormality or to reconstruct a vagina in cases where the natural canal has been destroyed as a result of parturition or consequent upon inflammation.

The purpose of this paper is to record a case of congenital absence of the vagina which I have had the opportunity of treating. These cases are so few in number that the recording of every example is important as an aid to surgeons confronted with a similar problem.

The patient was a woman 32 years of age, of normal appearance. Until her marriage four years previously she was unaware of any abnormality beyond the fact that she had never menstruated. She had regular monthly menses, but no menstrual flow. After marriage the impossibility of coitus became apparent, and resulted in domestic unhappiness. This finally caused her to consult her family practitioner, who discovered the abnormality. He invited me to see the patient with a view to rectifying the condition if possible.

On examination one found that the secondary sexual characteristics were normal, as were also the external genitals. When the labia were separated a small depression, suggesting in appearance and position an imperforate hymen, was seen. There was no evidence of haematocolpos. On rectal examination no cervix uteri could be felt, and no further information regarding the uterine

adnexa was obtained. The probability of the absence of the vaginal canal, and the proposed method of forming a vagina, with the operative risks and ultimate possibilities, were explained to the patient, who readily gave consent to the suggested procedure.

Three methods of forming an artificial vagina have been described and performed with varying degrees of success. (1) Turning in pedicled flaps of skin. This method carries the minimum risk, but the subsequent contraction of the new canal makes it the least satisfactory. (2) The method described by Schubert of adapting a portion of the rectum. (3) The method described by Baldwin in 1904, and successfully performed by him in 1907, of utilizing a loop of small intestine. From a survey of the literature

this appeared to me to give the most satisfactory permanent results, and was therefore employed in this case.

The operation was carried out as follows. The patient was first placed in the lithotomy position and a transverse incision made between the labia minora. The cellular tissue between the rectum and bladder opened up easily, but there was no trace of a vaginal canal. This separation was carried out to the highest possible point. A pair of long artery forceps was then intro-

duced into this space, and fixed securely in position by packing gauze round it. The position of the patient was then changed to the Trendelenburg, and the abdomen was opened by a median subumbilical incision.

The first striking feature found intraperitoneally was that the left kidney was lying on the brim of the true pelvis. This abnormality is mentioned by Pemberton as being present in several of the cases recorded; he suggests, therefore, a preliminary cystoscopy with ureter catheterization and x-ray examination to ascertain the location of the ureters. On examining the pelvic viscera the ovaries were

FIG. 1.—Shows the method of drawing down the isolated loop of ileum. The end of this loop is shown open, and the other closed by suture. In the actual operation both ends were closed before the loop was drawn down; the continuity of the bowel had also been restored before this stage was reached.

FIG. 2.—Shows the operation completed.

found lying one in either iliac fossa near the pelvic brim; they were normal in appearance, and showed evidence of the formation of Graafian follicles. There was no trace of a uterus or of any tissue representing it.

The technique of the Baldwin operation was followed. A loop of small intestine about 7 inches long and about 12 inches from the ileo-caecal valve was selected. It was isolated, together with its mesentery, and the cut ends of the bowel in the loop were permanently closed by purse-string sutures of catgut. The continuity of the intestinal canal was restored by an end-to-end anastomosis. The apex of the U-shaped isolated loop was easily pressed to the bottom of the pelvis, where it was grasped by the forceps previously introduced from the vulva, and drawn to the surface. The isolated loop of bowel was now sutured to the pelvic peritoneum, but this did not exclude it entirely from the peritoneal cavity, as the mesentery passed through the pelvic floor. This concluded the intra-abdominal part of the operation, and the abdomen was closed without drainage.

The patient was again placed in the lithotomy position. The loop of bowel was of normal colour, and there appeared to be no undue tension on its mesentery. The convexity of the loop was incised and the cut edges sutured to the skin edges within the labia minora. This concluded the operation. The patient made a straightforward recovery.

It was thought advisable to wait a few months before proceeding with the division of the septum between the tubes of the transplanted bowel. At the end of three months the septum had retracted to such an extent that this procedure was unnecessary. At first there was a constant discharge of mucus from the vagina, but this rapidly diminished in amount.

Two years after the operation the patient was examined. Her general condition, mentally and physically, had improved. She expressed herself as well satisfied with the result of the operation, and there is every reason to believe that coitus can be carried out satisfactorily. There is no contraction of the orifice of the vagina, which admits two fingers with ease.

A collective review of the literature on the formation of an artificial vagina, by Frank A. Pemberton, is to be found in the *American Journal of Obstetrics and Gynecology* for August, 1925.

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A NOTE ON TREATMENT OF IMPETIGO

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Of all the skin diseases that fall within the province of the school medical service, impetigo must be given pride of place, alike for its commonness and for its effects. It is the cause of an enormous amount of loss of education, its treatment involves considerable expense, and it produces immeasurable results in the way of impairment of health. For these reasons any improvement in existing methods is to be welcomed. The following notes describe what I believe to be an improvement by means of the already well-recognized principle of the occlusive dressing.

The subjects of the treatments recorded below were elementary school children treated at the Southampton municipal clinics. Three different lines of treatment were adopted.

Group I: Treatment by the Occlusive Dressing

This consisted simply in the application of a piece of "elastoplast" bandage to the lesion—whatever its stage of development. The lesion was not touched in any other way. Crusts, if present, were left *in situ*; superficial pustules were not pricked; and the adjacent skin was not cleaned. Some selection of patients had to be employed. There are situations, such as the lip edge, on which a dressing cannot con-

veniently be stuck, and there were children who, by reason of their irresponsible nature, could not be trusted to leave their dressings alone. No other method of selection was invoked. On the first visit the dressing was applied and the patient was told not to pull it off or to wash it. Unfortunately—and even surprisingly in respect of the second injunction—these instructions were often ignored, and the result has been a considerable diminution of the material available for statistical purposes. These failures were sometimes due to the misguided efforts of the parents, who would much rather use sulphur ointment than be parties to a revolution. More frequently they were due to the natural restlessness of childhood, for in point of fact the "elastoplast," if not interfered with, will stand a good deal of immersion in hot water. Fifty children have been treated from first to last with "elastoplast." They were excluded from school at their first visit and not allowed to go back till healing was complete. I believe there is very little risk of the infection spreading to others through the dressing, but the children were kept from school partly owing to the possibility of fresh lesions developing, and partly in order to make sure that they did not vanish from observation. The total time lost from school by these fifty children was 486 days, giving an average of 9.7 days per child. The longest period of exclusion was nineteen days, the shortest five days.

Group II: Treatment by Ung. Hyd. Ammon. Dil.

This comprised children who, by reason of the situation of the lesion, or by their probable or proved irresponsibility, were unsuitable for treatment in Group I. It also included those treated in the first part of 1932 before the "elastoplast" treatment had been started. The patient was given a box of dilute ammoniated mercury ointment and was told to keep the lesions well covered with it. Nothing was said about removal of crusts or any supplementary form of treatment. This group included sixty-five children, and they lost in all 1,208 school days, giving an average loss of 18.6 days per child. The longest period of exclusion from school was eighty-two days, the shortest five days.

Group III: Intensive Treatment

The fifty children in this group were treated on similar lines to Group II but on a more intensive scale. No attempt was made at any sort of selection. Crusts, if a prominent feature, were removed by means of a starch poultice applied either at the school clinic or at home, the materials in the latter case being provided and the method of use explained. The child then attended the clinic for "daily dressings," and the parent was given a box of ointment, as in the previous group, and told to apply it six times a day. These fifty children lost 1,127 school days, giving an average loss of 22.5 days per child. On an average they were dressed at the clinic six times each. The longest period of exclusion from school was eighty-one days, the shortest three days. The largest number of dressings in any individual was thirty-three, the smallest one.

Complications

One patient treated with "elastoplast" for three lesions on the left knee developed an abscess in the subcutaneous tissues of the middle of the left thigh. This was opened and recovery was uneventful. One patient in Group III—also with the primary focus on the knee—developed an abscess in one of the inguinal lymph glands. In this case, too, recovery was rapid after the abscess had been opened.

DISCUSSION

A comparison of these three groups, relatively small though they are, shows quite clearly the advantages of a policy of non-interference in the treatment of simple impetigo. Indeed, a study of the patients themselves brings home even more forcibly its benefits, for a comparison of the lesion which has been kept occluded with another on the same patient from which the dressing has been removed is most striking. Another feature, but one which it is difficult to express in statistical form, is the limitation of spread from one site to another in the individual patient. Nor does the occurrence of a subcutaneous abscess in the "elastoplast" group invalidate the claims