

similar to those which may affect the appendix while still within the abdominal cavity. It is well known that the symptoms of appendicitis may supervene with surprising rapidity, and this fact applied to inflammation within a hernial sac would perhaps lead to the belief that sudden strangulation had occurred. In many cases where an appendix has been found in a hernial sac, apart from other viscera, adhesions have been noted, showing evidence of past inflammatory action even if this has been but slight. Again, concretions and foreign bodies within the appendix have been recorded when this organ has been found outside the abdomen. No doubt when inflammation is in evidence the appendix becomes greatly thickened and its tissues will thereby be considerably pressed upon by the fibrous structures around the neck of the sac, but this is a secondary effect and should not be designated primary strangulation. The appendix has been found alone in the sac of a right inguinal, a right femoral and a *left* inguinal hernia, but I do not know of any instance where it has descended into and remained the only occupant of a left femoral, an umbilical, or a ventral hernia. It has been discovered at all ages, and out of 29 cases which I collected in 1896<sup>1</sup> it lay in the sac of an inguinal hernia in 16 cases and in that of a femoral hernia in 13 instances.

Harley-street, W.

#### NOTE ON THE COUNTING OF THE WHITE BLOOD CORPUSCLES.

BY ARTHUR G. PHEAR, M.D. CANTAB.,

ASSISTANT PHYSICIAN TO THE METROPOLITAN HOSPITAL.

In the counting of the blood corpuscles it is advisable, as has been pointed out by Sherrington,<sup>2</sup> to use a single preparation for the enumeration of both the red and the white corpuscles. The blood must be diluted with some suitable fluid at least 50 times, otherwise the red corpuscles are so closely crowded that no trustworthy count can be made. In blood thus diluted the white corpuscles, if not in excess of the normal, are few and far between; over the whole area of 400 squares that are ruled on the floor of the cell in the Thoma-Zeiss hæmocytometer not more than from 12 to 20 white corpuscles are to be seen in the case of normal blood; the number is so small as to afford a quite inadequate basis for the calculation of the total number of white corpuscles in the cubic millimetre of blood. The object of this note is to indicate a simple means of increasing the area available for the purpose of the count. It is by the use of the camera lucida. The most convenient form is the Zeiss-Abbe drawing camera, which is used with the stage of the microscope in a horizontal position—an important matter in dealing with fluid preparations; the image of the field is projected on to a piece of paper or cardboard lying horizontally on the table immediately to the right of the microscope stand. Before making the blood-count the ruled squares on the floor of the hæmocytometer cell are brought into focus and with the aid of the drawing camera the outline of as many squares as appear in the field is accurately marked out on the cardboard. At the time of making the count the image of the corpuscles which lie on the unruled part of the cell floor is thrown by means of the camera on to the cardboard, and the corpuscles which appear to lie over each square are enumerated and included in the count. In practice it is convenient to use a mechanical stage, and with the help of this it is possible to map out with great accuracy as much of the floor of the cell as is occupied by the drop of diluted blood and to enumerate the white corpuscles lying thereon. In this way the number of white corpuscles which are brought under notice for the purpose of the count is multiplied many times. It is, of course, essential that the eye-piece, objective, and tube-length used during the count should be the same as on the occasion of marking out the squares on the cardboard. For the dilution of the blood I know of no better fluid than that recommended by Sherrington,<sup>3</sup> consisting of: distilled water, 300·0 cubic centimetres; sodium chloride, 1·2 grammes

neutral potassium oxalate, 1·2 grammes; and methylene blue, 0·1 gramme. In this solution the shape and colour of the red corpuscles are preserved. The red corpuscles are not stained. The nuclei of the white corpuscles are in every instance stained and the distinction of the white from the red corpuscles is thus facilitated. For the differential count of the white corpuscles it is desirable to work with an immersion lens and as the depth of the hæmocytometer cell renders this impossible it is necessary to prepare a special fluid film. The subject of the differential count was discussed in a paper, to which I would refer, recently read by me at a meeting of the Royal Medical and Chirurgical Society.<sup>4</sup>

Weymouth-street, W.

#### NOTE ON A CASE OF SYPHILIS WITH NO PRIMARY SORE.

BY C. F. MARSHALL, M.D. VICT., F.R.C.S. ENG.,

CLINICAL ASSISTANT TO THE HOSPITAL FOR DISEASES OF THE SKIN, BLACKFRIARS; FORMERLY RESIDENT MEDICAL OFFICER LONDON LOCK HOSPITAL, &C.

CASES of syphilis in which a primary sore is absent are well recognised by continental authorities, but most English surgeons, I believe, are still sceptical on the point. The following case which was under observation from the first is therefore worth recording.

On March 21st a man, aged about 25 years, was sent to me by Dr. Steegmann with a view to the diagnosis of syphilis. He had a roseola rash on the chest, abdomen, and flanks, but no other signs and no primary sore. In January (two months before) he had contracted gonorrhœa and feared that he had also got syphilis owing to some inflamed smegma glands exciting his suspicion. From that date up to the present time he was under the observation of Dr. Steegmann and myself, and at no time did any "primary sore" develop. Later, in March, a typical polymorphous secondary syphilide appeared followed by injection of the fauces and mucous patches on the prepuce. There can, I think, be no doubt that this was a case of syphilitic infection without a primary sore.

Writing on syphilis in 1897 Stassano<sup>5</sup> was of opinion that many cases of syphilis occur without a primary chancre and that a solution of continuity is not necessary for its formation, as shown by the occurrence of chancres on the tonsils, where such solutions of continuity could hardly occur. Stassano even goes so far as to consider "primary chancres" as part of the "secondary" eruption because of the absence of any sign at the situation of the chancre during the period of incubation. Mr. Hutchinson, who has been kind enough to give me his present views on this subject, says: "I have seen not a few cases of constitutional syphilis in which, although carefully observed, no chancre had been noticed."

Finsbury-square, E.C.

<sup>4</sup> The Clinical Examination of the Hæmic Leucocytes, delivered on April 25th, 1899.

<sup>5</sup> La France Médicale, August 6th and 13th, 1897.

**THE HEALTH OF GLOUCESTER.**—The report of the medical officer of health (Dr. Campbell) for 1898 to the Gloucester Urban Sanitary Authority has just been issued. Dr. Campbell estimates the total population of the city at 41,450, an increase of 284 in the year. The births numbered 1315—688 males and 627 females—compared with 1336 in the previous year. The rate is 31·7 per 1000 compared with 32·6 per 1000. There were 694 deaths, as compared with 726—a rate of 16·7, as compared with 17·6 in the previous year. This is regarded as an extremely gratifying fact, as it places the city on a par with the most healthy towns in the kingdom. Dealing with the water-supply, the report states that the three sources of supply now available are capable of providing 20 gallons per head per day for double the population now supplied. On the whole, the supply generally will, it is stated, compare favourably with that of the best supplied towns, and the only fault that can be found is that the Witcombe and Robinshood Hill supplies are not sand-filtered as well as decanted and that the Newent supply is not chemically softened.

<sup>1</sup> St. Bartholomew's Hospital Reports, 1896, vol. xxxii., p. 93-105.

<sup>2</sup> Proceedings of the Royal Society, vol. lv.

<sup>3</sup> Loc cit.