by tearing, had effectually closed all communication between the lateral ventricles.

The corpora striata were not more developed than in the fœtus of the eighth month, having numerous fine white lines of medullary matter passing through them to the anterior convolutions of the cerebrum; to use a homely comparison, something like the bristles from the front of a common sweeping brush.

The optic thalami pale in the interior, yet more developed than the preceding ganglia; fine white lines passing from the anterior column of the crura cerebri, about half way into the interior, then lost to the naked eye in the general substance.

It would extend this report beyond all reasonable limits to enter into the microscopic examination that I have since made of these several structures. As such matters are rather foreign to the case reported, and not generally interesting to practical men, I shall only state that the cerebellum was healthy, the pons Varolii rather more opaque than usual, and the under surface blistered into small bags of water, which had collected between the membranes. It was at such spots only that a separation could be made between the arachnoid and pia mater. Some of these bags were as large as a small bird's egg, others not larger than a split pea; and from their position at the base of the brain, especially in the region of the respiratory tracts, had most probably exercised an injurious influence upon the thoracic viscera. A more minute description of the morbid appearances could only be rendered intelligible by plates, and however desirable such illustrations may be, in this case they are out of the question. I shall, therefore, conclude this part of the subject by referring to the external walls of the hemispheres, which were reduced in thickness, in proportion to the distance or proximity to the septa of medullary matter already mentioned; in the thinnest parts not more than two lines in thickness, in others four or five lines. The total quantity of fluid collected at the *post-mortem* examination measured four pints six ounces and a half; and some two or three ounces might have escaped.

The length of time occupied in examining the contents of the cranium, would not allow of any satisfactory examination of the contents of the visceral cavities; the report is incomplete without such an adjunct, but the reason given must be my excuse.

I venture the opinion, that in the foregoing case the failure was not to be attributed to the treatment employed, but to circumstances over which I could have neither knowledge nor control.

GEORGE CHATER

RESEARCHES ON THE COMPOSITION OF THE BLOOD IN HEALTH AND IN DISEASE: A MEMOIR PRESENTED TO THE ACADEMIE DES SCIENCES, PARIS, Nov. 18, 1844.

By A. BECQUEREL, M.D., and A. RODIER, M.D.

(Translated from the *Gazette Médicale de Paris*, by EDGAR SHEPPARD, Esq., M.R.C.S.)

(Continued from page 567.)

Thirteen first blood-lettings.—(Eleven men and two women.) The serum presented the following qualities:—

Considered in relation to quantity, it was four times found rather scanty, twice in moderate quantity, five times abundant, twice very abundant. In two cases, where the globules were very abundant, and in the normal state, the serum was scanty. With regard to its qualities, eight times it was but imperfectly limpid, being rendered thick and turbid by the mixture of a certain number of globules; five times, on the contrary, it was clear and limpid. In every case its colour was rather deep, its density less than in the normal state.

The clot presented the following characters:—Twice it was very voluminous, seven times of a considerable size, and four times rather small. It resisted the finger in nine cases, and more slightly in four. Its colour was three times of a deep red, of the colour of wine-lees; six times of a uniform reddish brown; three times of a brown marbled with bright red, and covered with a thin whitish or vermillion pellicle; and once sprinkled with some whitish marbled streaks.

The blood deprived of its fibrin was once clear, six times of a deep brown, six times of the colour of wine-lees.

Six second blood-lettings.—(Five men and one woman.) The serum was abundant in all six cases; turbid, thick, and of a deep colour in four; clear and limpid in two; of a less density than that of the first blood-lettings.

The clot was voluminous five times, less voluminous once; resistant in two cases, but little resistant in four; four times marbled with brown and bright red, and twice covered with a vermillion pellicle.

In the two cases where three venesections had been made, (one man and one woman,) the physical characters of the blood on the third bleeding were as follows:—

1st Case.—Serum abundant, limpid, and of a bright apple-green colour; clot but small, resistant, and streaked with red and brown; blood deprived of its fibrin of a clear brown, and of little density.

2nd Case.—Serum abundant, limpid, clear; clot small, scarcely resistant; blood deprived of its fibrin of the colour of wine-lees.

In order to appreciate the influence of the diminution of the fibrin on the characters of the clot, we shall briefly mention what were the characters of the latter in four cases, where the diminution was most considerable, the proportions of the fibrin being respectively 0.8, 1.3, 1.4, and 1.7.

1st Case.—Fibrin 0.8; globules 112; serum scanty,

turbid; clot voluminous, resistant, and of a deep brown colour.

2nd Case.—Fibrin 1.3; globules 111; serum abundant, turbid, and of a deep colour; clot dark-coloured, small, but little resistant.

3rd Case.—Fibrin 1.4; globules 110; serum abundant, turbid, and of a dirty yellow; clot very small and moderately resisting.

4th Case.—Fibrin 1.7; globules 115; serum clear, abundant, and of a deep citron colour; clot small, and marbled with brown.

The persistent firmness of the clot may perhaps be explained in these four cases by the fibrin and the globules having both diminished, while there still remained sufficient of the former to constitute with the latter a tolerably firm and consistent clot.

The following is a summary of the chemical composition, and the characters of the blood in typhus fever:—

1st. The globules may remain in the normal quantity if blood-letting is practised at a period but little removed from the commencement of the disease, and when it is as yet slight, however aggravated it may afterwards become; under all other circumstances they are less abundant in proportion as the disease advances, as the debility increases, and to the number of venesections made.

2nd. The albumen of the serum diminishes in a notable manner; this diminution is more considerable in very severe cases, especially if previous blood-lettings have been practised.

3rd. The fibrin generally remains normal at the commencement of typhus fever, at the period of the first blood-letting. It often diminishes in a remarkable manner when fresh bleedings are made. We are not as yet acquainted with the law by which this diminution is regulated, for it is seen to take place in some very severe cases, as well as in some of moderate intensity; accordingly, in both descriptions of cases, the fibrin sometimes remains normal, sometimes it diminishes, all things appearing in other respects equal. Lastly, the fibrin may be noticed to experience a very considerable diminution, without any hæmorrhage taking place, and a cure be effected. In general the diminution of this principle coincides with the adynamic form of the disease,—a form, however, which may exist, and even lead to a fatal result, without this diminution being produced. We cannot however tell what takes place towards the close of the malady, when the fatal termination is approaching, as we have never seen venesection performed under such circumstances.

4th. The quantity of seroline is, in general, very slight or unappreciable; sometimes it is increased without any apparent cause to account for it.

5th. The quantity of phosphorated fatty matter is, in general, normal, or varies slightly, either above or below the normal figure. It is lowered in some very severe cases.

6th. The cholesterine is, in general, normal, or in smaller quantity at the period when the attack commences. It increases and becomes much more considerable as the disease advances, and when fresh venesections are made.

7th. The animal soap diminishes only under the

influence of repeated blood-lettings, and perhaps a little as the disease becomes worse.

8th. The salts vary but little. We merely remark an increase of the insoluble phosphates, (lime,) an increase which no longer takes place, if the blood-lettings are large and repeated.

9th. The serum is sometimes mixed with globules, which disturb its transparency. This effect is produced much more readily at the second and third bleedings than at the first. Its density is less than in the normal state, and this diminution increases with the repetition of the venesection.

10th. The clot may present every possible variation in character. In none of the twenty-one individuals affected with typhus fever was there that softness, that diffuence, upon which, for a long time, so much stress has been laid. The clot showed very different qualities, without any change in the resistance of the coagulum, which however equally takes place in the normal state. Even in the cases where the diminution of the fibrin was considerable, the clot did not present any very remarkable characters, which may perhaps be attributed to the simultaneous diminution of the globules.

11th. The blood deprived of its fibrin was, in general, of rather deep colour, less dense than in the normal state, and containing more water and fewer globules.

In short, the blood in typhus fever absolutely presents no well-defined, positive, and constant character; and with the exception, perhaps, of some few cases, where there is a diminution of the fibrin, all the modifications which we have stated to take place, may be generated and explained by some other influences than those of this severe disease.

(To be continued.)

CALCULUS IN THE APPENDIX VERMIFORMIS CÆCI.

TO THE EDITOR OF THE PROVINCIAL MEDICAL AND SURGICAL JOURNAL.

SIR,

Agreeing, as I do, in the opinion that it behoves the members of our Association to support the scientific and general character of our own Journal, by any contributions, however humble, in the form of papers or cases, I venture to send to you, for publication, the following case, briefly and hastily drawn up, but certainly interesting and very rare.

Late in the evening of the 13th instant, I was sent for to a young gentleman, not quite twelve years of age, who had been for four days previously attended by a practitioner residing nearer to him than myself. The parents attributed the cause of his illness to his having eaten, on the 9th instant, a quantity of blackberries, which they believed to exceed two pints, and there seems no reason to doubt the fact. I found him in the last stage of acute peritonitis, the whole abdomen greatly swollen, not exquisitely tender on pressure,—indeed, but little tenderness was now evinced save in the right hypochondriac region.

Calomel had been given at frequent intervals, leeches applied, and a blister was now upon the hypogastrium,