the heart's action, that, when they are opened, the blood flows in a good stream, being sometimes projected to the distance of a foot or more. Experience also tells us that the arteries are always empty after death. Experience with the microscope has long told us that, from some cause or other, the motion of the blood is arrested in many capillaries, while the current in others is equable and steady; and Dr. G. Johnson has shown that, when this retardation has existed for some time in the kidney, the arteries of that organ are hypertrophied. With all this teaching, must we not conclude that there is a motive power in the circulating system entirely independent of the heart? and, as we can have ocular demonstration of the retarding power of the capillary vessels,* we need not hesitate in believing that in them resides a large, if not the largest, portion of this circulating force. In aid of this belief, the microscopist can bring in a host of analogical evidence. He is familiar with the circulation of the sap in the vessels of plants; with the march of the globules of chlorophyll round the cells of the *valisneria*; with the regular march of the nucleus, etc., round the inside of the hair of the *marchantia*; with the prolonged circuit taken by the plasma round the cells of the *chara*. He sees the sporules of *conferve* enjoying the power of locomotion; and hosts of cilia moving perpetually, each of which are infinitely smaller than the finest muscular fibre. And if it be conceded, as unquestionably it must, that the capillary system has a motive and retarding power peculiar to itself, and entirely independent of the heart, how greatly must we modify our views of inflammations and fevers; and how comparatively useless is the experience accumulated without reference to this power!

Take another illustration from the obstetric branch of our art. From the earliest ages of the world women have borne children, and we see proofs that thousands of years ago midwifery was followed as a profession much the same as it is to-day; yet, with all the accumulated experience of centuries, no real knowledge appears to have been possessed of the natural position of the child's head as it was coming through the pelvis, until the advent of Nægelé, barely fifty years ago. The great William Hunter was here at fault, and the well known Smellie was no better. Why? Not because they lacked opportunity; not because experience was wanting; not because they were mere closet philosophers; but simply because they started with a fixed idea, and never cared to inquire into its truth. They believed the assertion drilled into their young ears as implicitly as any child believes in a mother's love. No doubt ever came into their minds; and, without doubts, there is no inquiry.

Ever since midwifery has been practised, the fearful nature of placenta previa must have been known. Yet it appears to have been reserved to our own days for an extended and enlightened experience to teach the best method in which this accident is to be met. The same may be said of presentation of the umbilical cord, and the manner in which safety may be almost ensured both to mother and child in cases of contracted pelvis.

[To be continued.]

TREATMENT OF DIPHTHERIA.

By W. A. BRYDEN, M.D., Mayfield, Sussex.

HAVING been written to by gentlemen from different parts of the kingdom, with reference to a paper which I published in the BRITISH MEDICAL JOURNAL of November 21st, 1857, perhaps I may be permitted to answer them through the medium of the same JOURNAL.

First, as to the cases in which I think the guaiacum to be most useful: I use it in all cases, whether of "diphtheria", properly so called, or of what in this neighbourhood we have styled "cynanche maligna". I combine it with the chloride of potash, and use a gargle of chlorine at the same time.

In cynanche tonsillaris, I order a warm bran poultice, sprinkled with vinegar, to be applied externally, and give the guaiacum in ten-grain doses, with three or four grains of nitrate of potash, every three or four hours.

The following prescription is one which I have frequently used in cynanche maligna and diphtheria, the dose being for an adult:—

R Pulveris guaiaci 3ij; sacchari purificati 3j; pulveris acaciæ 3ss; aquæ 3vj. Misce, et adde potassæ chloratis 3ss. Fiat mistura ejus sumantur cochlearia ij magna 2dâ quaque horâ.

Instead of the application of the solid nitrate of silver, which I think often does harm, I always use the following gargle, or one similar to it:—

R Solutionis sodæ chlorinatæ 3j; sacchari purificati 3iss; aquæ 3vj. M. Fiat gargarisma sæpe utendum.

I see that other gentlemen, writing since my paper was published, have been recommending both the chloride of potassa and the chlorine in the treatment of diphtheria. Have any of them tried these in combination with the powdered guaiacum? and, if so, with what result?

CASE OF INTESTINAL OBSTRUCTION.

Under the care of S. W. J. MERRIMAN, M.D.,
and T. HOLMES, Esq., F.R.C.S.

[Reported by T. HOLMES, Esq.]

ON August 27th, 1858, I was requested by Dr. Merriman to see a woman labouring under protracted constipation. The patient, whose name was Louisa Clack, aged 34, was a person of imperfect health, having a weak digestion; and had been under Dr. Merriman's care, at frequent intervals, for a good many years, for dyspeptic ailments, which required a more or less prolonged attention, as she very slowly regained that amount of health which with her constituted being "well". Latterly she had suffered from irregularity of the bowels, and had been liable to diarrhœa and colicky pains. On August 16th, the bowels had acted naturally, though scantily. She was then just convalescent from a prolonged attack of diarrhœa, lasting more or less since the beginning of June; and went into the country. On arriving at her destination, she was seized suddenly with great pain in the abdomen, and the belly swelled up rapidly to a great size. The bowels had not acted since this time, except once under the influence of enemata, when a small amount of fecal matter had passed with the injection. Various purgative medicines had been given, but without effect. She had vomited for the first time to-day, only a small quantity of grumous fluid, apparently the contents of the stomach or duodenum. The tongue was very red and dry; the countenance distressed; the pulse weak and rapid. The belly was uniformly, but not excessively, distended (she was very fat); and there was no great tympanitis. She had complained principally of pain in the right iliac region, but this had been replaced latterly by pain in the neighbourhood of the umbilicus. There was nothing to be made out by palpation of the abdomen, except that, in the ileo-cæcal region, a large coil of intestine could be felt distinctly when any attack of tormina occurred. These attacks were rather frequent. The coil of distended intestine ran, as well as could be made out, nearly transversely across the abdomen, and therefore much below the situation of the transverse colon. There was no obstruction to the passage of a tube into the rectum, but it was arrested at a distance of about eight inches from the anus, apparently by a bend of the gut, and not a constriction, as any quantity of water could be passed without resistance.

From the readiness with which a large quantity of injection was passed and retained, as well as from the suddenness and completeness of the obstruction, and the pain being first complained of in the region of the ileo-cæcal valve, it was thought most probable that the obstruction was at or near that part of the intestine.

It was decided to try the effect of a powerful purgative; and, with this view, three pills, each containing half a minim of croton oil and five grains of compound extract of colocynth, were given during that night. They produced no effect, beyond a slight temporary aggravation of the colicky pain. Next day, she was in much the same condition. One grain of opium (in Dover's powder, or compound soap pill) was given every four hours. This gave her some relief; and on the following day (August 29th), her face looked certainly more calm. In other respects, she was much the same, except that the pain was more decidedly referred to the ileo-cæcal region, and that it was more easy to feel the coil of intestine above referred to. Chloroform was administered (which she took with wonderful rapidity and ease, becoming quietly insensible after very few inhalations), and a very large quantity (considerably above

* In thus speaking of the capillary vessels, we wish to include the parts or tissues through which they run, and not to attribute the power entirely to the thin elastic capillary cylinder.