

during which time I have vaccinated nearly 800 children. In each case, by the direction of the National Vaccine Board, four punctures are made in one arm of the child, and to vaccinate four children I have never found it necessary to charge the lancet more than once. To practitioners who, like myself, vaccinate large numbers in the shortest possible time, this little instrument will be a great boon, as well as a great saving in lymph.

The maker, Mr. Matthews, of Portugal-street, has taken considerable pains to follow out my instructions, and has produced it in several neat and portable forms to suit the requirements of the practitioner.

Birmingham, Oct. 1856.

## RUPTURE OF THE LIVER.

### OPERATION AND CURE.

By W. F. M'MILLAN, M.D., Friockheim.

THE following case possesses so many points of practical interest, that I am induced to bring it under the notice of the profession; and that the reader may have the whole case before him, I subjoin the report sent home to Scotland with the patient from the surgeon who attended him:—

"Wm. B—, aged twenty, was kicked by a horse on the 20th of April last, over the region of the liver, causing a considerable amount of inflammation, symptomatic with fever and jaundice, the fever and jaundice subsiding about the seventeenth day. As a sequel to this, ascites set in, and has been very troublesome up to May 31st, when he left this place for Scotland. Treatment during the inflammatory stage—Antimonials, aperients with mercury, local bleeding, poultices and fomentations. Calomel and opium have been pushed, so as slightly to affect the mouth. During the dropsical symptoms, friction, with mercurial ointment over the region of the liver, with diuretics, first of potass with spirit of nitrous ether, then sulphate of magnesia in the morning, with alterative doses of blue pill and digitalis. Now (May 31st) he takes spirit of juniper with digitalis, and mercurial ointment with iodine and powdered digitalis rubbed over the whole region of the abdomen twice a day. I have now recommended a change of air to his native country."

I was called to take charge of the case on the 2nd of June, the patient having arrived from England the previous evening. I found the abdomen greatly enlarged, about the size of a woman at the full term of utero-gestation; it felt hard, and unlike any case of ascites I had ever seen. I applied hot fomentations to soothe the irritability caused by the enlargement of the abdomen, and gave anodynes to allay the systemic excitement resulting from so long a journey having been undergone in the patient's debilitated condition.

June 3rd.—Has slept little, continually crying out, "Oh, my belly!"—Twelve o'clock noon: A consultation on the case with Dr. Guthrie, senior, of Brechin, when, after a careful examination, we came to the conclusion that it was not ascites, as our English friend had concluded, but that the enlargement was the result of effusion consequent on rupture of the liver, which was greatly enlarged, and gave great pain on being pressed. The bowels we found pushed into the left iliac region, and the whole abdominal cavity occupied with fluid. Such being the opinion arrived at, to operate was clearly our duty; accordingly it was agreed that we should operate next day. Hot fomentations were continued; an aperient and an anodyne were given in the evening.

4th.—There were present Dr. Guthrie, sen., Dr. J. Guthrie, jun., and myself, when, having bandaged the abdomen as in the operation for ovarian dropsy, and placed the patient in the lithotomy position, Dr. Guthrie, sen., made an incision about an inch below the umbilicus, and introduced a trocar and canula. We drew off 324 fluid ounces of a grumous liquid, composed of blood, bile, &c., which had a most offensive smell. Pieces of adhesive plaster were then strapped over the wound, and the whole abdomen very firmly bandaged. A sedative mixture was then given, and during the evening our patient had some sleep, and on awakening he partook of a little food.

5th.—Feels more comfortable this morning, and took some breakfast. Complained of some griping pains in the abdomen, for which an anodyne mixture was given.

I omit giving here the daily state I found him in, as it is of little moment; but he continued gradually to improve and gather strength till June 17th, when he went out with me, and

took a walk for nearly a quarter of a mile; and on the 18th he went alone to the other end of the village. About a week afterwards I recommended a short ride on horseback. He smiled when I proposed it; but on my offering him my horse, he mounted, and rode fully a mile, trotting some part of the way.

Sept. 4th.—From the 5th ultimo there has been gradual improvement, and now he is fully convalescent, being engaged in harvest operations in the field with his father.

### ANALYSIS OF THE

### WATER OF BEN RHYDDING, NEAR OTLEY, YORKSHIRE.

By SHERIDAN MUSPRATT, M.D., F.R.S. Ed.,

PRINCIPAL OF THE LIVERPOOL COLLEGE OF CHEMISTRY.

It is a remarkable fact that no analysis of this water has hitherto been published. Ben Rhydding is at an elevation of 500 feet above the level of the sea. The soil is arenaceous, and the springs here are amongst the finest in Great Britain. From its situation midway between the vast upland moors, and the sweet banks of the placid Wharfe, Ben Rhydding affords not only a favourable position from which to admire the varied scenery around, but one from which, by a walk requiring little time or exertion, the valetudinarian may enjoy what he desires, an agreeable change of temperature. As a matter of course, it is everything combined at such a place that produces the beneficial results. The water flows from the principal fountain, which is called the "Shrine," at the rate of about three gallons per minute. It has a temperature of 42°, and is exceedingly refreshing and cooling to the palate. Although it contains a little more fixed air than the Malvern water, which I analyzed last year, still, being rather colder, it seems to exert a more invigorating effect upon the partaker. Annexed are the results of the solid constituents in a gallon of the water. The composition appears to me rather a singular one as compared with that of other waters of a salubrious character throughout the kingdom. The specific gravity of the water is 1.001297.

	Grains in the imperial gallon.
Carbonate of lime	...
Carbonate of magnesia	... Mere traces
Chloride of sodium	... 0.914
Chloride of magnesium	... Trace
Sulphate of lime...	... 2.295
Sulphate of soda...	... 0.511
Silicate of Potassa	... 1.315
	5.035

On looking at the figures, it appears that the water almost entirely consists of a silicate and a calcareous sulphate.

October, 1860.

### ALARMING EFFECTS PRODUCED BY AN OVERDOSE OF OPIUM IN A CHILD.

#### RECOVERY.

By HUNTER FINLAY, M.D., Bothwell.

ABOUT eight o'clock in the evening of the 28th of August I was called to see a child who was stated to have been poisoned with opium. As the place was several miles distant from my house I did not arrive till nearly ten o'clock, when I found the patient, a little boy aged eighteen months, lying in bed in a state of stupor; the pupils firmly contracted; the pulse quick and irregular; the breathing slightly stertorous. On inquiry, I ascertained that he had received the opium about ten o'clock in the forenoon; that by about noon he was observed to become drowsy, and irritable when his mother tried to awake him. About one P.M. the stupor deepened, and he continued asleep till I saw him. The mother stated that the child had for several days been troubled with diarrhoea, and that the opium had been administered for its cure. I was shown several pills, which seemed to be pieces of solid opium—as if they had been broken from a cake of crude opium, and rolled into irregular