

ter extending beyond the distance between the separated edges of the coal-bed. Now in the case of the bituminous mineral, the cracks in which it occurs are, in many instances, unaccompanied by any displacement of the strata, and in others where the extent of the dislocation (that is the upthrow or downthrow, as it is called) is visible, no layer holding any of it occurs among the beds. Independent of all this, the formation in which the mineral is found, is an inferior member of a group of rocks, whose place is in all probability a very considerable distance below the position of the true workable coal-bearing measures, and we are, therefore, not warranted in expecting coal seams to exist in it. The rock is supposed to be the equivalent of a part of the Hudson River Group of the New York geologists.

Although the chain of Notre Dame Mountains runs parallel with the general strike of the strata between them and the St. Lawrence, and the rocks composing them have not been classified separately, I do not recognize them as similar to any mass met with on the coast, notwithstanding the direction they take ought to bring them out obliquely upon it towards the top of the group. Should further investigation prove that they really belong to the group; it will result that their mineral condition must have been greatly changed; but a larger number of facts must be collected to authorize any conclusion respecting them. In all the parts visited they present a metamorphic aspect. Their general colour is pale green, very much resembling the green of epidote. They are hard, close textured and silicious, often presenting the appearance of a very fine-grained sandstone, in which the beds would be nearly obliterated were it not for fine lines of discoloration. Such was their general character on the summits of the highest peaks, and at six localities in our progress up the gorge of the Chat; but loose angular fragments in the stream shewed that the green is sometimes mottled with red jaspery patches, and that some masses display a fibrous or a-bestiform structure, breaking into hard long pointed splinters, while others, possessing something the character of mica schist, split into silicious plates, whose separation is facilitated by the existence of flakes of mica, running in parallel layers.

On the summit of the Old Man Mountain, which consists of the close grained quality of green silicious rock first mentioned, we found the needle of our compass deflected  $4^{\circ}$  from the ordinary magnetic meridian of the neighbourhood, which is  $22^{\circ} 30'$  west of true north. The irregularity may have been occasioned by the vicinity of some vein of the magnetic oxide of iron, but so much of the surface was concealed by moss and trees that our search for it proved unavailing.

#### *Gaspe Limestones and Calcareous Shales.*

In the neighbourhood of Gaspe Bay, four mineral springs exist in the rocks of the formation under description. Two of them are bituminous, and two of them are sulphurous. One of the bituminous springs is situated on the south side of the St. John River, about a mile and a half above Douglstown. The liquid is petroleum, and it oozes from the mud and shingle of the beach. On digging small pits a black earthy deposit two or three inches thick is perceived lying on bluish gray clay, and it is from this black earthy deposit that the liquid

was seen to exude, and none of it from the clay; though there can be no doubt there must be some orifice in the clay to allow the communication with the deposit resting on it. The liquid collects in the pits in a thin film on the surface of the water entering with it; and from twelve pits, I with difficulty obtained half a pint in four hours. When the beach is covered with water, intermittent black blotches are seen to rise through it in several spots, which, floating on the surface, are carried by the wind or the tide to the first impediment offered by any stick or collection of seaweed rising above its level, and occasionally a small supply of it is found thus embayed. Localities yielding the liquid are said to exist at intervals all the way up to the lower extremity of the first marsh island, a distance of about three-quarters of a mile, but though I examined about half of it, I did not detect any of them.

The position of the other petroleum spring is about two hundred yards up a small fork of the Silver Brook, which is a tributary of the South-west Arm, falling into it about six or seven miles above Gaspe Basin. The exact orifice from which the bituminous liquid issues is not easily determined; but it collects on the surface of the water, wherever impediments cause a quiet pool, in the form of a thick green scum, which can be taken with a spoon. A copious spring of pure water rises up at the spot, and though none of the petroleum was visible on the surface of the spring at its issue, it is not improbable some connexion may exist between their sources, as no trace of it was found higher up the brook. About a pint of the bituminous liquid was collected in half an hour, but this was from an accumulation found covering a small pool, on reaching the place the odour of which could be perceived for one hundred yards around.

## PRACTICE OF MEDICINE AND PATHOLOGY.

### ON THE TREATMENT OF ACUTE RHEUMATISM.

By P. M. LATHEM, M. D.

It needs little else than a perusal of the instructive volume from which the following observations are extracted, to convince us of the immense importance of a prompt and scientific treatment of acute rheumatism. On this point the remarks of the author are worthy of implicit confidence, being the result of labours conducted under circumstances the most favourable to the eliciting of truth; namely, those of extensive experience united to and guided by high scientific acquirements. In his tenth lecture, the author enters upon the consideration of the several indications towards which the curative endeavours of physicians are generally directed, and first of *blood-letting*. The power of this remedy, he observes, carried to its full extent, is in many cases undoubted, the entire disease being rapidly subdued by it, but in other cases it is far from being efficacious, or may even prove positively injurious. Upon the whole, therefore, he decides that the practice which proposes to cure rheumatism, at any cost of blood which may be needed, is an uncertain and a dangerous one.

Still, he observes, venesection is among the remedies of acute rheumatism, not needful in all cases, but expedient in many. "It is expedient to abate vascular action when it is excessive, when the patient is robust and young, and the disease has arisen accidentally in a healthy constitution. \* \* \* But in the young, robust, and previously healthy, where vascular action is not excessive, and in the old, the feeble, and the previously valitudinary, even when it is, venesection is best omitted. There are other remedies which, without the help of bleeding, may be trusted to for its safe and effectual cure.

Summarily, then, I would venture to say of venesection em-