

lators. Improved processes of manufacture have in a great measure removed these defects, but even the best lights will still occasionally flicker.

The red and yellow rays have the greatest penetrating power; and for this reason an oil-light, which is rich in these rays, can be seen farther in foggy weather than an electric light of *equal candle-power*. But the electric light can be made so much more powerful than the best oil-light, that this deficiency can be more than made up; still, it must be borne in mind when the candle-powers of the two lights are compared.

When the French system was adopted, the incandescent electric light had not left the domain of experiment; and even now its luminous intensity is very much less than that which can readily be obtained from an arc-light of moderate dimensions. It possesses, however, the element of remarkable fixity, and is rich in red and yellow rays. No light could be better for a light-house, if it can be produced cheaply, have sufficient luminous intensity, and be made reliable. It will, moreover, dispense with the somewhat complicated and expensive regulators.

It is in this line that the Light-house board of the United States is about to make experiments, and the results obtained will have great interest for the whole world.

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GEOLOGICAL NOMENCLATURE AND COLORING.

THE following stratigraphical divisions have been provisionally adopted by the international commission of the geological map of Europe. The colors placed against them are those proposed by the directors.

1. Gneiss and protogine. Bright rose-red.
2. Crystalline schists (mica schists, talc and chlorite schists, amphibole schists, and foliated gneiss). Medium rose-red.
3. Phyllites (argillaceous schists, urthon-schiefer). Pale rose-red.
4. Cambrian (all fossiliferous beds below the Llandeilo flags; primordial fauna, Taconic). Reddish gray.
5. Silurian, lower fauna (second of Barrande). Dark silk-green.
6. Silurian, upper fauna (third of Barrande). Light silk-green.
7. Devonian, lower. Dark green-brown.
8. Devonian, middle (limestone of the Eifel). Medium green-brown.
9. Devonian, upper. Light green-brown.

10. Carboniferous, lower (culm, mountain limestone, etc.). Blue-gray.
11. Carboniferous, upper (houillier, millstone-grit, etc.). Gray.
12. Permian (dyas), lower (rothliegendes, etc.). Burnt sienna.
13. Permian (dyas), upper (zechstein and equivalents). Sepia.
14. Trias, lower (grès bigarré). Dark violet.
15. Trias, middle (muschelkalk). Medium violet.
16. Trias, upper (keuper and equivalents). Light violet.
- 16'. *Rhetic*, provisionally (haupdolomit excluded).
17. Jurassic, lower (lias). Dark blue.
18. Jurassic, middle (dogger, kellovien included). Medium blue.
19. Jurassic, upper (malm with tithonic and Purbeck). Light blue.
20. Cretaceous, lower (Neocomien and Wealdian). Dark green.
- 20'. *Gault*, provisionally.
21. Cretaceous, upper (from the cenomanien). Light green.
22. Eocene (nummulitic, etc.). Orange-yellow.
- 22'. *Flysch*, provisionally.
23. Oligocene (with the aquitanien). Dark yellow.
24. Miocene (mollasse). Medium yellow.
25. Pliocene. Light yellow.
26. Diluvium. Naples yellow.
27. Alluvium. White.

The subdivisions, 'Rhetic,' 'Gault,' and 'Flysch,' whose affinities are doubtful, will be figured separately in the preparatory work; so that they can finally be joined either to the upper or lower formation, according to the decision reached by the commission of nomenclature.

INDIAN RELICS FROM NEW BRUNSWICK.

THOUGH Indian relics of the ordinary type, such as arrow-heads, axes, gouges, celts, etc., are of common occurrence in this region, as elsewhere, it is extremely rare to find any articles showing other features than those of mere utility; while remains of pottery, so far as I am aware, have, until recently, been entirely unknown. During the last summer, however, my attention was directed to a locality which is one of some interest, not only as containing undoubted relics of this character, but also as illustrating a somewhat unusual mode of occurrence.

The locality in question is that of a small stream or 'thoroughfare' connecting two sheets of water known as Grand and Maquapit Lakes, being the two principal members of a series of lakes and streams covering a considerable area in the central coal-basin of New Brunswick, and tributary to the river St. John. Both