five years ago I discovered this, and succeeded in producing plates a quarter of an inch in thickness and four inches in diameter, by placing the basic silicate of soda within a dialyser, which was floated on dilute sulphuric acid, 1 part to 20. The plate of silica was formed in the floated vessel. A similar result may be obtained by placing in a wide test-tube a portion of basic silicate. Taking care that the upper portion of the tube is quite free from adhering silicate, the dilute acid should be poured on to the surface of the silicate without disturbing it. After a few hours the silica is eliminated in a crystalloid form.

Possibly the first process may help us to understand how tabasheer may have been deposited, while the second may throw some light on the formation of raphides, carbonic or some other acid being the active agent.

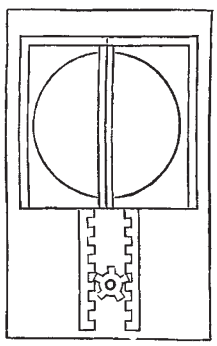
16 Savile Street, Hull, March 15 THOMAS ROWNEY

A Method of Illustrating Combinations of Colours

IN NATURE, vol. iv. p. 346, there is a description by Mr. Allen, of Sheffield, of some methods of showing the combination of various colours on a screen. He used a biunial or "dissolving view" apparatus to produce overlapping disks of colours, and also three lenses mounted close together in place of the ordinary single lantern objective, and giving images of three apertures in a lantern slide, close to which were placed cells of coloured liquids.

His experiments suggested to me the following method, which I have used for some years past, and for which only the ordinary single optical lantern is required.

A lens 10 cm. in diameter and 15 cm. focus is cut in half, and the two halves are mounted in frames so as to be capable of sliding past each other precisely in the same way as the divided object-glass of a heliometer. The motion is given by a pinion acting on racks in the same way as in the ordinary double-barrelled air-pump.



In the frames which carry the semi-lenses are cut grooves in which slips of coloured glass, or gelatine, or cells of coloured liquids may be placed; and the whole is fitted on the nose of the lantern in place of the usual objective, a diaphragm with round aperture about 3 cm. in diameter being put into the slide-holder.

Thus, when the two semi-lenses are so placed as to have their principal axes coincident, they act as a single lens and form one image of the aperture on the screen: but when they are moved past each other by turning the pinion, two disks of light are shown which can be separated entirely or made to overlap to any required extent. If, then, glasses or liquids of any given colours are placed in front of the semi-lenses, the compound colour produced by their union can be easily shown, either simultaneously with the component tints, or alone by accurately superposing the disks, thus avoiding any disturbing effect of the intrusion of other colours upon the eye.

It is in this way easy to show, taking four prominent colours, blue, green, yellow, and red, that blue + yellow = white; blue + red = purple; green + red = yellow, &c.

In place of coloured liquids, which are "messy" and liable to change, I almost always use coloured glasses, either singly or superposed (cobalt-blue, for instance, cemented to "signal-green" glass gives a good pure blue). Such glasses can by patient and careful selection be obtained of almost any required tint and intensity. H. G. MADAN

Eton College, March 26

Ice-Period on the Altai Range

IT is generally assumed that in the Altai Range there are no traces of so-called ice-ages. Hitherto, however, only ridges on the borders of the Altai Mountains have been examined. The geological phenomena of the mid-Altaic regions are still almost quite unknown. In the course of last summer it happened to me to visit some parts of the south Altaic regions—the Narim Range in the vicinity of Altaiskaia, Stornitza, or Koton Karagay, the neighbourhood of the Cossack settlement Oorool, then the so-called Katoon's Pales with their snowy giant Belooha. Subsequently I travelled in the valleys of the Belaia and Chernaia Berels, and visited the valley of the Arassan lakes and some other places. Everywhere I was struck by many and various traces and remnants of a large icy cover, which has left either strong glacier deposits, or abundant remains of moraines, or pieces of granite covered with lines. The valleys, too, bear on them the indubitable signs of glacial origin. In a word, there can be no doubt as to the existence of a large ancient icy cover here. Were these glaciers contemporaneous with the ice-age of Europe and North America, or do they present themselves as a quite independent system? My own observations convince me of their independence. The Altaic ice-period had, I think, its own causes. The Altaic system of mountains is of great antiquity; and its ridges were probably much higher at one time than they are now. Perhaps the whole system rose far above the line of eternal snow, although at present this line is reached only by some of the highest summits. It is probable, too, that in those very remote times the meteorological conditions of the country were far harsher than at present, because glaciers were more numerous and descended lower, digging the **V**-shaped valleys of the Katoon River, of the White and Black Berels Rivers, of Chindagatooy, &c.

The question of the periodicity of glacier-ages has again been raised lately, and perhaps it is from the Altai and from the Blue Alps that we may obtain the solid data for the complete solution of this very important question. A. BIALOVESKI

Oostkamenogorsk, November 1, 1886

A Claim of Priority

J'AI eu récemment l'occasion de lire dans le *Philosophical Magazine* (Août 1886) la description très-intéressante d'un "intégrateur sphérique," combiné par Mr. Frederick John Smith, et qui semble être une modification de celui du Prof. Hele-Shaw. Mais l'idée première de ces appareils, et c'est sur quoi je dois appeler votre attention, m'appartient sans doute, car dans le No. 630 du journal anglais NATURE (Novembre 24, 1881) j'ai donné la description d'un "Anémomètre Intégrateur," fondé sur le même principe, et qui a été plus tard cité dans le *Quarterly Journal of the Royal Meteorological Society* (No. 43, 1882), par Mr. Laughton ("Historical Sketch of Anemometry and Anemometers").

La modification imaginée par Mr. F. J. Smith, tendant à supprimer ou à amoindrir, autant que possible, le moment d'inertie de la sphère, me parait excellente, surtout s'il fallait transmettre des vitesses quelque peu considérables. Mais quand il s'agit simplement d'enrégistrer celle du vent sur une échelle modérée, je crois que la forme primitive suffit, et, d'après plusieurs essais que j'ai faits, une bille d'ivoire roulant sur des cylindres de bronze c'est ce qui donne les meilleurs résultats.

Je vous prie, Monsieur le Directeur, de vouloir bien faire constater dans votre estimable journal cette réclamation de priorité, ainsi que d'agréer mes plus sincères remercîments et l'assurance de ma considération très-distinguée.

Observatoire de Madrid, le 12 Mars V. VENTOSA

Oktibehite or Awaruite?

IN the notice of the proceedings of the Geological Society of London (NATURE, December 23, 1886, p. 190) the discovery in New Zealand of a nickel alloy allied to *oktibehite* appears to be claimed by Prof. Ulrich, of Dunedin. This requires explanation, as the mineral was first determined, and named *awaruite*, after the locality, by Mr. W. Skey, Analyst to the N.Z. Geological Survey Department on September 28, 1885, and described by him in a paper read on October 25, 1885, and published in the local papers at the time, as well as afterwards in the Transactions of the N.Z. Institute, vol. xviii., issued May 1886. A notice of it is also given in my twenty-first annual Museum