

DIFFERENT HEADINGS, WITH ONE OR TWO EXAMPLES.

MACROCHRON.	EON.	PERIOD.	ERA.	EPOCH.	MICROCHRON.
(Greatly extended time.)	("A space of time, a life-time.")	("An interval of indefinite time.")	("A succession of years between two fixed points.")	("A pause.")	(Comparatively short time.)
<i>Examples.</i> Neptunia (all aqueous rocks.)	Paleozoic Eon.	{ Permian Carbonaria Devonia Siluria	{ Austria (Mt. limest.) Cambria	{ Iowaia Potsdamia Acadia	{ Karkaskia, St. Louis, etc., etc.

EXAMPLES SHOWING THE ADAPTABILITY OF CERTAIN HEADINGS TO MOST OF THE MODERN LANGUAGES.

	<i>System.</i> ("An assemblage of objects ranged in regular sub-ordination, or related by some common law.")	<i>Sub-system.</i>	<i>Group.</i> ("An assemblage of objects in a certain order.")	<i>Sub-group or Section.</i>
	Σύστημα (το) Le système. Das System. Il sistema. El sistema.		Le Groupe. Die Gruppén. Il grúppo. El grupo.	Section. La section. Die section. La sezione. La seccion. or <i>grade or member</i> , with slight modifications can be used in the above languages.

ABBREVIATED FORMS WITH SOME EXAMPLES.

	For <i>Periods.</i> Roman numerals, I, II, III, etc., or Capital letters A B C, etc., applied thus: I = Siluria. or A = "	For <i>Eras.</i> Arabic numerals 1, 2, 3, etc., applied thus: 2 = Canadia 1 = Cambria	For <i>Epochs.</i> Small letters a, b, c, etc., [repeated for the epochs of each era.] 2 ^a = Vitre-Murcia 2 ^a = Llandeils-Esthonia 1 ^b = Potsdamia 1 ^a = Acadia	For <i>Members.</i> marks used to the right and above the era letter, similar to the power-sign in mathe- matics. Thus to designate the Burlington member of the Iowa subcarinifer- ous, we would write: III. 9 ^{ab} or C. 9 ^a a"
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of the leading present equivalents is submitted below, in which it will be observed that one great object, kept in view, was the recording particularly by the Epoch names, such localities as are noted for having given us remarkable fossils, characteristic of that peculiar formation, whether found in well-known regions of Europe and America, or in such distant countries as Patagonia, N. Zealand, the Cape of Good Hope, Greenland or Spitzbergen, etc.

NOTE TO TABLE I.

To further facilitate the understanding of some of the suggestions submitted, a tabular view is subjoined, giving different headings, with their definitions from standard dictionaries, as well as a conspectus of the symbols.

NOTE TO TABLE 2.

Probably some difficulties, and, despite of care exercised, some errors in the details may be pointed out; but if the general principles are found acceptable, or suggestive of such discussion as may ultimately lead to unification of our Geological Nomenclature, the object proposed, in the preparation of this paper, will be attained.

A NEW MATERIAL FOR STOP-COCKS AND STOPPERS FOR REAGENT BOTTLES.*

By H. W. WILEY.

For some time I have been working with a compound invented by Mr. T. J. Mayall, of Reading, Mass., and known as the Mayall metal. One form of this compound was intended as a material for journals, pneumatic tubes, etc. It is made of 5 to 6 parts graphite, 1 part rubber and ½ part sulphur. Instead of sulphur, sulphide of antimony can be used. The material is a perfect self-lubricant and to a high degree resists the action of acids and alkalis.

From its properties I was led to believe that it would

* Read before the A. A. A. S., Cincinnati, 1881.

be especially useful for chemical apparatus, in the manufacture of stop-cocks, connecting tubes, etc. My expectations were fully realized.

I have used it with success for burettes, cocks for hydro-sulphuric acid, stoppers for hydrote bottles, etc. These never stick, no difference how firmly they are pressed in nor how long they are left. The material is firm and elastic and will hold threads nearly as well as a metal.

I regard it as peculiarly useful for stop-cocks for acids, especially hydro-sulphuric. It is capable of a high polish, and will not tarnish. Slightly modified in composition it is used for covering houses and plating the bottoms of ships. Placed on ships it seems to prevent entirely the adhesion of barnacles. Strange as it may seem, it also makes an excellent insulating material for telegraph wires. I have not yet tried the effect of ozone upon it and only partially of permanganate of potassium.

PHONETICS OF THE KAYOWE LANGUAGE.*

By ALBERT S. GATSCHET.

Books printed in Indian languages often render those tongues in a most imperfect manner, on account of the deficient knowledge of Indian phonetics on the part of the authors. The Kayowe language is a fair average specimen of Indian pronunciation, and is very rich in sounds, having no less than forty-four sounds, if we count in the long and the nasalized vowels. In its phonetic series the most conspicuous fact is the prevalence of the nasals and the total absence of dsb, tcb, which are so conspicuously frequent in the majority of American languages, of r and of v. The palatal series is represented by one consonant only; the guttural and dental series are well represented, while in the labial series p, b, and m are the only frequent sounds. F is found in some words only, where it alternates with p, pai, or fai, land, earth. Among the sounds not frequently met with are sh, w

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