

of the corpses with chloride of sodium. But, with every allowance for such considerations, Dr. König has furnished a striking illustration of the permeability of the immersed human subject to salts in solution, and it is to be hoped that his painstaking researches will lead to others in the same important direction.

#### Medical Students Abroad.

Human beings are so much like sheep in their habit of following where their predecessors have led, says *Medical News* of Aug. 30, 1890, that it seems almost useless to attempt to divert their course from the clinics of Vienna or Berlin to those of London, Liverpool, or Edinburgh. Yet any one who has studied both on the continent of Europe and in England must have been impressed with a number of advantages possessed by English study over those offered in still more foreign lands. The advantage of the mother-tongue is inestimable. Very few Americans who do not possess German blood know enough of the German language to understand the terms used by a rapid lecturer in the Fatherland; and, if they do not, they lose that which they chiefly desire, namely, the minute points of the subject before them. The average American going to one of the continental clinics receives most of his instruction from docents, or other instructors of a comparatively low grade, simply because he is one of hundreds who not only throng around the chief, but overflow to the subordinates; while in England, notably in London, the number of eminent men is so great, and the percentage of foreign students so small, that each and every one can sit at the feet of the teacher whose writings are known everywhere in the civilized world. While the student in Berlin or Vienna becomes imbued with the views of the single individual governing a given course, in London he may go from hospital to hospital and obtain different views, and in consequence become a man of broader ideas and greater resource.

#### LETTERS TO THE EDITOR.

\*.\* Correspondents are requested to be as brief as possible. The writer's name is in all cases required as proof of good faith.

The editor will be glad to publish any queries consonant with the character of the journal.

On request, twenty copies of the number containing his communication will be furnished free to any correspondent.

#### On the Minerals contained in a Kiowa County (Kansas) Meteorite.

A REMARKABLE group of meteorites has been discovered during the past year in Kiowa County, Kan. In March last a small fragment was identified by the author as being of meteoric origin, and steps were taken by Dr. F. H. Snow of the Kansas State University, Professor F. W. Cragin of Washburn College, and others, to obtain some of these masses.

The history of this find has been described by Dr. Snow (*Science*, May 9, 1890) and by George F. Kunz (*Science*, June 13, 1890). The latter writer, to whom a large number of the specimens of this fall belong, describes some very carefully, and gives some analyses of the minerals contained. In *Science*, July 18, 1890, another specimen, more recently found at this locality, is described. This as well as others noticed belongs to the class known as "pallasites." Its weight is two hundred and eighteen pounds and a quarter.

It is an irregular triangular pyramid about twenty-two inches in height, with a maximum width of seventeen inches. As it was well buried in the mud, one side of it presents numerous cavities in which are crystals that have not been destroyed by handling or by the action of the elements. One of these cavities is four inches in diameter and two inches deep. Nearly all these cavities are filled with more or less perfect crystals of light-yellow olivine and chromite.

The general color of the meteorite is a mottled reddish black, but it is redder than other specimens of this group that we have seen.

The specific gravity of the whole mass was 4.79, showing that there is not as much iron as in some of the specimens reported. A dirty-white incrustation was noticed at several places on the surface. This proved to be calcium carbonate, and is no doubt

due to a deposit from the calcareous soil in which the mass was buried. A polished section shows the usual Widmannstättian figures after treatment with nitric acid.

Some quite perfect crystals of yellow olivine were secured. There is much more of an almost black variety of this mineral. Of the latter no analysis was made, as it did not seem possible to secure a uniform sample. It is suggested by Mr. Kunz that this zone is a mixture of olivine and troilite. The yellow olivine has a fusibility of 5+, blackens before the blowpipe, is attracted by the magnet after ignition but not before, gives the usual iron reaction with the borax bead, and is soluble in nitric acid with separation of gelatinous silica. It has conchoidal fracture and vitreous lustre. The analysis is as follows:—

SiO <sub>2</sub> .....	38.38
FeO.....	13.55
MgO.....	46.21
MnO.....	.29
Cr <sub>2</sub> O <sub>3</sub> .....	.61
S.....	a trace
Loss on ignition.....	.82
	99.86

The chromite, which is found in crystals and masses lining the cavities above mentioned, is iron-black in color, with a brilliant lustre. It is brittle, gives a brown streak, and is slightly magnetic after ignition. It gives the usual emerald-green bead with borax. It is not acted upon by acids. Some of the masses are one third of an inch in diameter. In most of these cavities there are about equal quantities of olivine and of chromite. The analysis is as follows:—

SiO <sub>2</sub> .....	1.42
CaO.....	0.78
MgO.....	6.11
FeO.....	23.21
Al <sub>2</sub> O <sub>3</sub> .....	0.25
MnO.....	a trace
Cr <sub>2</sub> O <sub>3</sub> .....	67.83
Loss on ignition.....	.24
	99.84

The iron-nickel alloy, as shown on a polished surface, is intimately associated with the troilite. Its specific gravity is 7.70. It has the following composition:—

Iron.....	88.08
Nickel.....	11.04
Cobalt.....	.56
Sulphur.....	.10
Phosphorus.....	.11
Silicon (?).....	.05
Copper.....	a trace
	99.94

A specimen of troilite from the 54.96 pound meteorite of this group was also examined in our laboratory. It could not be picked clean from iron and olivine. After excluding silica and magnesia of the olivine, the composition corresponded quite closely with the analyses of troilite as reported in Dana's "Mineralogy."

This specimen is remarkable on account of the size of the depressions on its surface, and the fact that these depressions contain such pure crystals and masses of both olivine and chromite. In the interior the olivine occurs in rounded grains, filling the cavities of the iron.

E. H. S. BAILEY.

Lawrence, Kan., Aug. 15.

#### The Unit Measure of Time.

ON the question of a name for the time-unit, referred to in an article by Dr. Sanford Fleming of Ottawa, in *Science* of Sept. 26, I see nothing better for what he wants named than "mean solar day." No suitable word of classical derivation occurs to me after thinking of the matter; and I find "mean solar day" as little objectionable as "tropical" or "sidereal," etc., "year." The best time-unit would probably be a pendulum-oscillation (of a given length) vibrating *in vacuo* at the pole of the earth.

C: MACDONALD.

Dalhousie College, Halifax, N.S., Oct. 1.