

tively upon questions of politics or religion? Would it be hard to find 'good men and true' who would give under oath greatly differing opinions concerning the propriety of instituting free trade or establishing an inheritance tax? Experts are subject to the same errors of judgment as befall the rest of professional humanity, and when their opinions clash they are entitled to the same respect that we grant to the members of the bench when they hand down the decision of a divided Court.

One fruitful opportunity for disagreement always arises when questions are brought into Court touching upon matters newly discovered and apart from the well beaten path of common professional knowledge. Doubt is often left upon the minds of those seeking the light, even when the testimony is given by the specialist who originally developed the new point in question, for one cannot be expected to be thoroughly educated in that which he has himself but recently discovered.

Many of us have dreaded to see the 'ptomaines,' or putrefactive alkaloids, make their way into Court with their mystifying influences upon Judge and jury and their tendency to protect crime. Now they are in, what is to be the end? Even with no 'Ptomaine theory' possible, the ptomaine form of argument is not unknown. The writer was once asked in an arsenic case whether he was willing to swear that at some future time an element would not be discovered giving the stated reactions now called arsenical. Such nonsense is, of course, instituted to impress the jury, and is suggested by similar questioning in the alkaloid cases.

A recent and somewhat amusing instance arose from an attempt to introduce the rather new conception of 'degeneracy' into a murder trial. The defence sought to show that the prisoner was a 'degenerate' and offered expert testimony as to the

meaning of the term and as to the signs whereby such a condition was to be recognized, whereupon the prosecution called attention to the fact that the defendant's experts themselves exhibited every one of the signs in question.

Having said all that he was to say, and having stated it to the best advantage, should the expert depend upon the stenographer so recording it as to allow of its being used in future without correction? Decidedly not.

The average stenographer is unfamiliar with technical terms, especially such as are chemical, and the witness who fails to supervise the minutes may find out later that he has sworn to a most remarkable array of 'facts.' The writer once discovered that he had recommended, as a very efficient method of purifying a city water, the filtering of the entire supply 'through a layer of black mud.' Not to take your time further, let us summarize what has thus been briefly said:

The expert witness should be absolutely truthful, of course; that is assumed, but beyond that he should be clear and terse in his statements, homely and apt in his illustrations, incapable of being led beyond the field in which he is truly an expert, and as fearless of legitimate ignorance as he is fearful of illegitimate knowledge.

Mounting the witness-stand with these principles as his guide, he may be assured of stepping down again at the close of his testimony with credit to himself and to the profession he has chosen.

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CURRENT NOTES ON ANTHROPOLOGY.

ARAUCANIAN STUDIES.

DR. RODOLFO LENZ continues his excellent studies on the Araucanian dialects and folk-lore, in the 'Anales de la Universidad

de Chile.' His last contribution embraces seven semi-mythical tales in the Pehuenche dialect, the original text and a Spanish translation. They offer much curious material, and often leave it doubtful whether the story is of native origin or borrowed from European sources. The first, for example, tells of a dead lover who came from his grave to claim his bride and carried her to his tomb. In spite of the striking similarity of this to the legend embodied in Bürger's ballad 'Lenore,' the editor believes it to have been from native sources.

Unfortunately, like so many other tribes, the Araucanians were little studied by the early settlers, and the knowledge we have of their mythology is vague and slight. Dr. Lenz very properly observes that it is all the more important to collect what still survives in their songs and stories; and, it may be added, the scholarly manner in which he presents his researches to the reader renders them models of work of this kind.

THE 14TH REPORT OF THE BUREAU OF ETHNOLOGY.

THIS report (for 1892-93) has just been distributed. It is in two parts or volumes counting up to over twelve hundred pages! The contributions are three in number, the first an exceedingly interesting paper by Mr. James Mooney on the ghost dances of our Western tribes; the second a study of the Menomini Indians, by Dr. Walter J. Hofman, containing a mass of accurate observations; and the third an erudite treatise on the expedition of Coronado to New Mexico in 1540, by Mr. George Parker Winship.

It is needless to dwell on the value of these contributions to the history and ethnography of our country. Every future student of these subjects will owe a debt to this and previous reports of the Bureau.

No series of publications by our government has been edited with more conscientious care, and none can show a list of articles of a higher class, or of more permanent importance, than the Bureau of Ethnology. It should be a matter of patriotic pride, based on the recognition of solid merit, for the government to render liberal aid to this scientific department and increase the means of its usefulness.

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NOTES ON INORGANIC CHEMISTRY.

A LECTURE by Professor William Crookes on 'Diamonds' was delivered June 11, 1897, at the Royal Institution. It has been reprinted in the *Chemical News* and is perhaps the best brief treatise on the diamond ever written. The latter part of the lecture was devoted to the origin of the diamond as illustrated by the diamond 'pipes' of the Kimberley field. According to Professor Crookes the diamonds crystallized out of molten iron containing carbon in solution and at sufficient depth below the surface to give great pressure. Water finding its way down to this iron, the gas generated bored out the 'pipes' which were, "at the subsidence of the great rush, filled with a water-borne magma in which rocks, minerals, iron oxid, shale, petroleum and diamonds are churned together in a veritable witch's cauldron," a mud volcano. "It may be that each volcanic pipe"—of the South African fields—"is the vent for its own special laboratory—a laboratory buried at vastly greater depths than we have reached or are likely to reach—where the temperature is comparable with that of the electric furnace; where the pressure is fiercer than in our puny laboratories and the melting point higher; where no oxygen is present, and where masses of carbon-saturated iron have taken centuries, perhaps thousands of years, to cool to the solidifying point. Such