NOTES ON INORGANIC CHEMISTRY.

ATOMIC WEIGHT STANDARD.

IN spite of the all but unanimous decision of the International Committee on Atomic Weights, that the standard should be Oxygen = 16, the question seems not yet to have been finally settled. At the December meeting of the American Chemical Society, a report was presented by the section of the International Committee appointed by the Society, in which it is shown that opinion is still somewhat divided, and an expression of views is called for from the members of the Society. For the guidance of the members a very fair statement is made in brief of the principal arguments for both standards. According to the report, Professor Erdmann writes that out of 143 replies to the teachers' circular, 118 favor the retention of the old standard, Hydrogen = 1. It will be remembered that after the report of the International Committee, six German chemists sent out a circular to the teachers of chemistry in German-universities and technical schools, advocating the old standard, and calling for expressions of opinion. It is natural that replies to this *ex parte* circular should have been chiefly received from those who agreed with its views, but the number of favorable replies indicates that there is an element, by no means small, who are opposed to the majority. It is, however, not the teachers alone who are to be considered in this matter; the selection of the standard of atomic weights is of at least as much importance to the practical chemists, who vastly outnumber the teachers.

IN the opening number of the *Berichte* for the year, the section of the International Committee representing the German Chemical Society publish the annual table, headed 'Internationale Atomgewichte. O = 16.00,' but they also print a second table with the heading 'Didaktische Atomgewichte. H = 1.00,' with the comment that it is done for those teachers who cannot reconcile their teaching to a standard which is anything other than unity. It is interesting to note that in this table appear for the first time gadolinium, krypton, neon, thulium and xenon, which are thus given a final standing as elements.

In reviewing these tables in the *Zeitschrift für anorganische Chemie*, F. W. Küster reproduces the report in full, except that he omits the second didactic table, as unnecessary for the readers of the *Zeitschrift*. He says the only end gained by printing it would be to keep up the discussion, which should now be looked upon as finally settled. On the other hand, it would seem that in the end unanimity is far more likely to be obtained by still allowing the freest discussion, rather than by suppressing it, while any considerable number of chemists, including some of the most eminent, refuse to acquiesce in the decision.

ACTION OF ALCOHOL UPON METALS.

SOME time since, a note was made in these columns of a specimen of alcohol contaminated with zinc, which could only have come from its being kept, as is so often the case, in a galvanized iron container. The subject has been more recently investigated by Dr. Malméjac, and his results published in the *Journal de Pharmacie et de Chimie*. In his experiments he used ninety-five-per-cent. alcohol which left no residue on evaporation. The metals, copper, iron, tin, lead, zinc and galvanized iron, were corked up with the alcohol in glass flasks, and kept at ordinary temperature for six months. The copper was entirely unacted upon, but in all the other flasks there was a deposit at the bottom, and the metal was covered with a similar deposit. In the case of tin, lead, zinc and galvanized iron, the deposit was white; that from the iron was red, resembling iron rust. All the liquids, except that in which the lead had been placed, filtered clear; the latter retained its milky appearance after repeated filterings through double filters. The clear filtrates from iron, lead, zinc and galvanized iron gave much residue on evaporation, while the residue from tin was hardly appreciable. In the former cases it is clear that not only had the metal been oxidized, but a considerable quantity had entered into solution. These experiments have an important bearing on the preserving and shipping of alcohol, especially in view of the fact that absolute alcohol is very generally purchased in galvanized iron cans. In such a case redistillation is imperative.

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