

What is the weight of the gas that escapes? The experiment is carried out [by means of a very simple apparatus] and the all important discovery is made that the weight of the escaping gas is just about what was lost on burning chalk. There can be little doubt, therefore, that the gas thus studied is "the something" which is given off when chalk is burnt. If so, perhaps it may be possible to reassociate this gas with lime and produce chalk. Lime is therefore exposed in an atmosphere of the gas, and the increase in weight determined; it is eventually ascertained that the lime increases in weight to the extent required on the assumption that it is reconverted into chalk, and on examining the product it is found to behave as chalk both when heated and when dissolved in acid. Thus the problem is solved, and it is determined that *chalk-stuff* consists of *lime-stuff* and *chalk-gas*: I employ these terms advisedly, and advocate their use until a much later stage is reached, when systematic nomenclature can be advantageously made use of.

In talking about chalk, it may be pointed out that chalk is believed to consist of skeletal remains and shells of sea animals, and when the composition of chalk has been ascertained, the suggestion come naturally to examine shells. When their behaviour on burning and towards acid is studied quantitatively, results are obtained which place it beyond doubt that they essentially consist of chalk-stuff. The chalk studies thus become

of very great importance, and may be made to cover a wide field.

It is not to be denied that there are difficulties connected with such teaching as that I am advocating, but it is a libel on the scholastic profession to assert that the difficulties are insuperable. I am sure that in this case the old ever-true saying may be quoted:—"Where there's a will there's a way." Such teaching has not yet been given simply because there has not yet been the will to give it; because its value has not yet been appreciated. No doubt there must be less class teaching, more individual attention, an adequate proportion of the school time must be devoted to the work, and properly trained, sympathetic teachers must be called in to give such instruction.

When scientific method is taught in schools, there will inevitably be a great improvement in school teaching generally; it will be carried on in a more scientific manner, and new methods will be introduced. Indeed, I have already learnt from a headmaster in whose school experimental science teaching is receiving much attention, that the leavening effect on the teachers of some other subjects in the school is quite remarkable, and that they are clearly being led to devise more practical modes of teaching.

Photography and the lantern, also, are modern weapons of great power, which often enable us to clothe the dry bones of otherwise unattractive subjects with pleasing drapery. And here the parent can often intervene with great effect.

"WE have to rise above ourselves, not above our neighbours; to take all the good of them, not from them, and to give them all our good in return."—George Macdonald.

"BRIGHT-EYED Fancy, hovering o'er,
Scatters from her pictured urn
Thoughts that breathe and words that burn."
—Gray.