I may here mention that in writing down the chemical formula, I have adopted what is known as the rational or constitutional method, by which not merely the composition but also the constitution of substances is shown. For instance, the empirical or ordinary method of writing the chemical formula of carbonate of lime is $CaCO_3$—this shows us the composition of the substance. But by giving the formula as Ca O, CO_2, we denote in addition to the fact that carbonate of lime consists of the elements calcium, carbon and oxygen in certain proportions, the relation of these elements to each other,—calcium and part of the oxygen existing in combination as quick lime, carbon and the rest of the oxygen existing as carbonic acid gas. We are able to make this statement because we know that when carbonate of lime decomposes under the action of heat it is resolved into quick lime and carbonic acid gas. Rational or constitutional formula are, therefore, to be preferred in many respects to empirical formula, since, to adopt a simile, they do not merely tell us the individuals of which the household is composed, but the relation of those individuals to each other. But to return to our subject proper—given quick lime and carbonic acid gas, we can in this way prepare carbonate of lime, synthetically that is from its constituents. But what is of more importance to us, we can, by heating carbonate of lime, resolve it into its constituents, viz., quick lime and carbonic acid gas. This then is the process that goes not in the lime-kilns, and which is known as *lime-burning*, though it is *carbonate of lime* that is so burnt and yields quick lime which is left in the kiln, and carbonic acid gas which escapes into the atmosphere. The decomposition, by heat, of carbonate of lime may be thus expressed by a chemical equation:—

$$Ca\ O,\ CO_2 = Ca\ O + CO_2.$$

One hundred parts by weight of carbonate of lime, yielding 56 parts of quicks, the carbonic acid gas escaping into the atmosphere. This carbonic acid gas (which we shall see later on, plays an important part in the setting of mortar) is the same substance that is found in the exhaled breath of all animals, and is found existing to the extent of about 4 parts in every 10,000 of air. There is a simple test for carbonate of lime, viz., the application of a few drops of hydrochloric acid, which is followed by an effervescence or bubbling up, due to the escape of carbonic acid gas, which, as we have seen, in combination with quick lime forms calcium carbonate. The action of hydrochloric acid on carbonate of lime results in the formation of chloride of lime and water, with the escape of carbonic acid gas. The reaction is chemically expressed by the following equation:—

$$Ca\ O, Cl_2 + 2\ HC = CaCl_2 + H_2O + Cl_2.$$

Carbonate of lime and hydrochloric acid, forming calcium chloride, water and carbonic acid gas.

This test is often a useful one, for there are some forms of carbonate of lime which are difficult to distinguish from other substaces similar in appearance, but totally different in composition, such as gypsum, milky-quartz, kaolin, and talc.

(To be continued.)

VETERINARY LECTURES FOR THE PEOPLE.

In a late number of the *Scottish Farmer* an excellent suggestion is made by a correspondent who recommends that "the agricultural section of the Technical College, or any other body, should arrange for a series of lectures on Veterinary Surgery to be given. Of course, this would not be at all in the way of qualifying for any degree, but simply to take the place towards the brute creation that ambulance or first-aid does towards man. It is notorious the amount of preventible suffering endured by animals, owing to those in charge not having the slightest knowledge of even the simplest causes or remedies. I am certain such lectures would be largely attended by those keeping animals either for pleasure or profit."

In reading the above it immediately struck us that the suggestion could be modified and adopted with much advantage in Ceylon. We have here a Colonial Veterinary Surgeon, whose duties are by no means overburdensome, and consist of holding three classes (each of 45 minutes' duration) a week at the School of Agriculture, and visiting areas infected with cattle disease whenever necessary. During the greater part of the year, however, there is seldom a call upon the Veterinary Surgeon to visit the Provinces, while for three months in the year there is no teaching work to be done in connection with the School of Agriculture.

How then could a fully-qualified Veterinary Surgeon, who has had a distinguished career in College, wish to be better employed than in making a tour of the Provinces, scattering a knowledge of veterinary surgery (on "first aid" principles) as suggested by the correspondent whom we have already quoted. It may be assumed that the subordinate revenue officers in the Provinces have a sufficient knowledge of English to understand and appreciate lectures such as would be delivered (that is, lectures of a practical nature free from technical verbiage) by the Veterinary Surgeon in the chief town or towns.

If this suggestion is impracticable, we have another Veterinary Officer available in the person of Mr. W. A. de Silva, who with his Indian training (under conditions very similar to those which obtain in this country), his local experience, and his partially for the use of accessible and inexpensive (and not less efficacious for that) drugs which have made his remedies so acceptable to the natives, will be able to address Sinhalese audiences *in their native tongue*, and give them such advice as will be invaluable to them in their present helpless ignorance.

In referring to the suggestions of the correspondent quoted above, the *Scottish Farmer* (in its "Current Topics" column) remarks that "the proposal is deserving of serious consideration," adding further: "The proposal is not to make every man his own Veterinary Surgeon; the ambulance classes have not made every man his own doctor; and while a little knowledge is a dangerous thing when possessed alone and exercised with presumption, it is a very valuable thing in its own place."

We fully endorse the opinion herein expressed, and are confident that in the direction we have indicated there is an opportunity which should not be lost of utilising the services of our Veterinary officers to advantage.