

mass of the sulphate, into which the carbon dips. Water is poured on, so that the salt slowly dissolves. When the cell is in action the mercury sulphate is broken up, and mercury in metallic form is deposited on the surface of the carbon.

As regards our conditions—(1) Its E.M.F. is 1.5 volt; (2) it is not constant; (3) internal resistance is small; (4) there is very little, if any, action when at rest; (5) it is fairly clean; and (6) does not give off fumes.

This form of cell is much used by some makers in constructing medical batteries, but unless the solution be very frequently renewed the cell is of little use. Its need for constant attention and renewal of the excitant is a serious drawback.

B.—(1.) The Daniell cell has for elements zinc and copper, and for excitants dilute sulphuric acid and sulphate of copper. It has two jars. The inner contains the zinc, standing in the dilute sulphuric acid; the outer contains the copper, standing in the copper sulphate solution, having also a few crystals of the sulphate just dipping into the solution to keep up its strength.

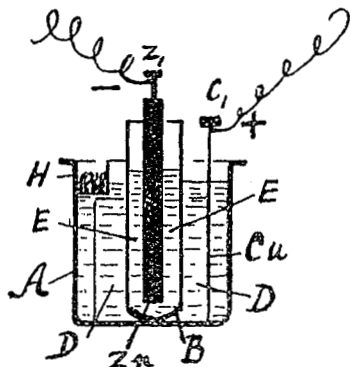


FIG. 8.—DANIELL'S CELL.

Fig. 8 represents a Daniell cell in section. A is the outer jar, B the inner porous jar, Cu is the copper element standing in the sulphate of copper solution D, Zn is the zinc element standing in the sulphuric acid solution E, H is a tray containing a few sulphate of copper crystals, c₁ is the positive pole, and z₁ the negative pole.

NURSES AND THEIR QUALIFICATIONS.

BY WILLIAM BLOOD.

IN the opinion of the writer all this is excellently well said. Nothing could be better or wiser. The reviewer goes on to give a striking instance of the foregoing, and tells that on one occasion, when in such shattered health that she almost needed a Nurse herself, she—a professional

Nurse—was sent to attend an old gentleman who had had fourteen Nurses in one month, a patient who was in the habit of throwing the pillows at the Nurses' heads, and when she first approached him looked very like throwing over her own head the contents of a feeding-cup. She quietly took the feeding-cup from him, and said, "You know as well as I do that if you want to live you must take food. If you don't want to live don't take any, but it won't make the least difference to me which you do." After this the patient made a good recovery, and "in a few weeks was able to leave town." Had she adopted the courtesy eulogised by St. Francis it is very probable that during the next month this interesting old gentleman, who is now spared to us, would have had fourteen more Nurses, would have finally "left town," only to go to his grave. A thoughtful person cannot help speculating, the reviewer says, as to whether this warrior of the pillows felt grateful to his sagacious antagonist for having saved him from his own folly by her lack of courtesy. Among all the Nurses who attended him at the rate of fourteen a month did he retain the kindest or the angriest reminiscences of his Nurse? "Yield to a man's tastes and he will yield to your interests" is one of the astute remarks of the late Lord Lytton, put into the mouth of one of his most astute characters. But what are the feelings of a man towards a benefactor who persists in saving him by firmly refusing to yield to his tastes? On the great question, Is man a grateful creature—grateful as compared with those whom he modestly calls "the lower animals"? we should like to get the opinion of those who are best able to speak—those who have benefited men without "yielding to their tastes." Does or does not that very egotism (or, as Emerson more politely calls it, centrality) which has developed man into so brilliant an aristocrat in the animal kingdom make him in a general way accept all benefits as a kind of natural homage to his own excellence? An uncomfortable question, which he who has seen the most of men finds it the most difficult to answer. On it the opinion of a good and wise Hospital Nurse, says the reviewer, is vastly important. But if it is true, as the author of the book affirms, that Hospital patients are for the most part grateful to their Nurses, is not this another blow to the Carlylean sophism that good health and good morals are convertible terms? The reviewer goes on to give an instance in which a patient shows the beauty of gratitude in a civilised land, and where even the children of an inferior race can be grateful too, as in the case of a Zulu patient.

The writer cannot speak too highly of the admirable way in which the reviewer has enun-

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