cally no attention, and when worn out must be replaced.

The secondary cell, commonly called an accumulator, or storage cell, consists of two plates, one of lead, the other of lead peroxide, immersed in diluted sulphuric acid of specific gravity 1·20. This is much stronger than "dilute sulphuric acid." These cells do not in themselves generate an electrical current, but have the power to store up current passed through them, and give off this current in a reverse direction if the terminals are subsequently connected to a conducting circuit. In charging, the positive terminal of the charging circuit is connected to the positive terminal of the accumulator, which is that attached to the peroxide plate, and which is coloured red, and the negative of the charging circuit to the negative terminal of the accumulator. The charging current thus passes through the cell in the reverse direction to the discharging. A secondary cell when fully charged has a potential of 2 volts. The amperage, or quantity of current, varies with the size of the cell, and is usually marked on the side. A cell marked "40 ampere-hours" is one that will produce (theoretically) a current of 1 ampere for forty hours, if the combined resistances of the cell itself and the external circuit equals 2 ohms. If the external resistance is diminished the amperage is increased, and the time correspondingly decreased. There is a limit to the discharge rate of these cells, which if exceeded damages the cell, and this is usually set at one-tenth of the total capacity. The same applies to the charging rate. Thus a 40-ampere-hour cell should neither receive when charging nor give when discharging a current of more than 4 amperes. They should never be discharged fully; the voltage must not be allowed to drop below 1·9 volts. The plates must always be kept covered