

magnetize the needle by rubbing one end with the north-seeking pole of a magnet and the other end with the south-seeking pole of a magnet, and set it pointing north and south. It will then indicate the dip fairly accurately.

Gregory and Simmons, *Lessons in Science*, page 209, give another method, which is more difficult to carry out, but gives fair results.

### ELECTRICITY

The experiments in this department will be limited, as it is only intended that the pupil should gain a knowledge of the nature of the electric current and a few practical applications. For the current necessary to perform the experiments three or four dry cells are necessary, and these should be renewed every year. The objection to them is that they do not give a steady current, and hence are not good for electrolysis and for electrical measurements; however, they prove fairly satisfactory for the former, and very little of the latter will be undertaken in the Lower School Course.

**CURRENT INDICATOR.**—For indicating the presence of a current and its direction, a wire may be placed above or below a compass-needle. To get a more sensitive indicator, wind twenty or thirty turns of wire about a beaker near its open end, and after laying it on its side so that the coil is in the magnetic meridian, place a compass in the mouth of the beaker, supporting it so as to bring it near the centre. Let the ends of the wire dip into pill boxes containing mercury, and then connect the terminals of the electrical generator, whatever it may be, by dipping them into the mercury.