

Here is another experiment. Several light pith balls, cut from the pith of an elder bush, are suspended from a little beam by silk threads. (Fig. 2.) They are free to swing about like the pendulum of a clock. Here also is a piece of cat's fur, while in this clamp is an ebonite or hard rubber rod. (Fig. 3.) A hard rubber comb would do just as well as the rod. To begin with, each one of these pith balls must be touched with the hand. The rod also must be touched from end to end with the hand. (Fig. 4.) If the rod be now placed near the pith balls we see that it neither



FIG. 3.—Cat's fur (in hand) and ebonite rod (in clamp), to be used in experiments.



FIG. 4.—Before the experiments are begun the pith-balls and ebonite rod are both touched by the hand to make them "neutral."



FIG. 5.—Pith-balls and ebonite neutral, no attraction between them.



FIG. 6.—Ebonite rubbed with cat's fur attracts pith-balls. Ebonite said to be electrified.

attracts nor repels them. Both may be said to be "neutral." (Fig. 5.) But on rubbing the ebonite with the cat's fur and then holding it near a pith ball we see it is violently attracted to the rod. (Fig. 6.) It has been electrified by friction against the cat's fur.

Placing the rod close enough that one of the pith balls can touch it, we see that immediately after contact, the ball, instead of being attracted, is strongly repelled. The ball has been electrified with part of the charge that was on the ebonite. Thus "like charges repel." (Fig. 7.)