of phenomena will be presented. The unmagnetized ore will be attracted by it under all circumstances, in whatever manner it be presented; but the magnetized ore will be sometimes attracted and sometimes repelled, and by this change of effect the magnetic principle is detected.

It has been proved, by many careful experiments, that all metallic bodies, and probably many others, may be invested with magnetic agency, but iron receives it more readily than any other substance. It is said that a metal which contains only 130,000th part of its weight of iron, a proportion which cannot be detected by chymical means, may be magnetized. But the agent has an elective power, and is more powerfully condensed, if we may employ the expression, in that particular ore called the loadstone; why it chooses this combination of substances in preference to any other, the philosopher has no means of determining, and cannot at present pretend to guess.

The mere existence of a magnetic iron ore would be of little importance, if there were no means by which the power could be transmitted into or induced upon other bodies. The process that would be required to reduce the magnetic iron ore into a shape suited for the purposes to which magnets are applied, would have a tendency to destroy the power itself; for both heat and hammering destroy magnetism. But the natural magnet or loadstone can communicate its peculiar properties to iron and other ferruginous substances. If a small piece of steel, as a sewing-needle, remain for a little time in contact with a loadstone, it will become a magnet; and if freely suspended upon its centre of gravity, will direct itself north and south, in the same manner as the substance from which it derives its power. Bars of steel may also be made magnetic by rubbing them with a loadstone or artificial magnet. This singular inductive power, possessed by the magnetic principle, gives great facilities of investigation, as the agent may be called into activity in any ferruginous body. We might speculate as to the nature of this process, but there is an uncertainty connected with it which cannot be very easily removed. It is possible that the agent, whatever it may be, exists in all ferruginous bodies, and that the directive power results from its accumulation; or it may be that it is actually communicated by one substance to another; a supposition, however, not very probable, as by one magnet hun-