

shows, too, the necessity of bringing facts of all kinds to bear on the hypothesis ; thus, in this case it was requisite to take into account the facts of junction and separation of magnetic bodies, as well as their attractions and repulsions.

If we have seen reason to doubt the doctrine of electric fluids as physical realities, we cannot help pronouncing upon the magnetic fluids as having still more insecure claims to a material existence, even on the grounds just stated. But we may add considerations still more decisive ; for at a further stage of discovery, as we shall see, magnetic and electric action were found to be connected in the closest manner, so as to lead to the persuasion of their being different effects of one common cause. After those discoveries, no philosopher would dream of assuming electric fluids and magnetic fluids as two distinct material agents. Yet even now the nature of the dependence of magnetism upon any other cause is extremely difficult to conceive. But till we have noticed some of the discoveries to which we have alluded, we cannot even speculate about that dependence. We now, therefore, proceed to sketch the history of these discoveries.