

noble progeny of inventions. Here is the rudimental germ of the Telescope, the Microscope, the Cameras for various purposes.

When Lawrence Koster, at Haarlem in 1430, let fall on a piece of paper the fragment of beech bark on which he had playfully cut in relief the initials of his name, little dreamed he as the stain produced by the moist sap first attracted his attention, what a revelation had been made to him, and through him to the world. Metal types and the art of printing thus had their beginning.

Bradley, the celebrated astronomer, (1748), is amusing himself with sailing on the Thames in a pleasure boat: the wind is blowing strongly; frequent tacks are made; he notices that at every turn of the boat, the vane at the mast-head, instead of keeping steadily in the direction of the wind, exhibits an uncertain sort of motion. By a train of reasoning he arrives at an important conclusion on the subject of the aberration of light, starting a theory that has relieved astronomers from a perplexity under which they had previously laboured.

M. Malus, a French Colonel of Engineers, (1810), casually turning about in his hand a double refracting prism, as the sun is setting, observes one of the images of a window in the Palace of the Luxembourg disappear—and it leads him to the discovery which has rendered his name distinguished, of the polarization of light by reflection.

We might narrate how friction on amber originated the science and name of electricity—how experiments with jet, with sealing wax and India Rubber, might lead to the same result—how Louis Galvani, (1737) at Bologna, by taking notice of the spasmodic action of the legs of dead frogs when touched by his electrically-charged scalpel, discovered that phase of electric science that retains his name—how Masso Finiguerra, (1450) at Florence, while working at his business as an annealer of gold and silver, discovered the art of engraving on copper-plates, so as to obtain impressions on paper therefrom—how Louis Von Liegen, (1643,)—or, as some say, Prince Rupert—invented the process of mezzotint, by observing the corrosion of rust on a gun-barrel—how Alonzo Barba at Potosi, (1640,) happening to mix some powdered silver ore with quicksilver—with the view of fixing, if possible, the latter substance—found all the pure silver of the ore absorbed by the quicksilver, and so arrived at the secret of forming amalgams—how the casual observation of Francis Joseph Gall, (1757,) while yet a boy at school—to the effect that those of his companions who had prominent eyes had facility in remembering words—led at last to his curious theory of phrenology—how M. Argand, by perceiving a draught created by the passing of the neck of a broken bottle over a flame was led to invent the well-known Argand Lamp—how M. de Courtois, (1813,) by accident detected iodine in sea-weed, from which material, since his time, it has been extensively manufactured.

These, and other equally interesting examples of happy discoveries by accident, I might narrate at length; but, I hasten to speak of the steam-engine,