

a heavy heart," (Prov. xxv. 20.) Nor, perhaps, are we justified in thinking that, because the word Chemistry is probably derived from an Egyptian root, this people had any knowledge of the composition of things, for the word *chems*, to which I refer, is said to mean obscure or dark, and possibly shows us rather how mysterious all such processes were to them.

It is not, indeed, till a much later period in the earth's history, and when a settled purpose had dawned upon men's minds, that we can observe any thing like an application of chemical knowledge of the properties of objects. At first this was seen in the most dreaming and visionary schemes, when in the seventh century of our era the Alchemists began to try and make gold from lead and other base metals — to discover the elixir which was to give a long life, prevailing over the statute of death — and the universal solvent, which was to reduce all things to a fluid state. There was an enduring twilight, and it was only in the beginning of the seventeenth century that the glimmer seemed to grow into something like clear light, and reason began to direct the efforts of man upon more fixed principles, to the discovery of what was useful to him in health, and beneficial in sickness. Cheering as it dispelled the mists of ignorance, and revealed the countless wonders these had concealed, the increasing light illumined the minds of votaries constantly growing in number and power, and in the beginning of this century came DAVY, who may be said to have been the very chief of those who fairly established Chemistry as a science — no longer a dark mystery nor a clumsy art, but a truly inductive science, founded upon the accurate observation of facts, and the tracing of them to their proximate causes.

To enumerate the material benefits man has derived from the diffusion and application of this kind of knowledge, would be to enter into a minute history of every thing we eat, drink, wear, live in, or come in contact with in daily life: and so thoroughly to compare our own improved earthly condition with that of those who lived before it was possessed by man. I need only mention the manufacture of gas, the beautiful arts of Photography and of dyeing, to bring this home to the mind of the most careless observer. And among countless other gifts of pure and mixed Chemistry to mankind, the physician has received his quinine, his morphia, his ether and his chloroform, to lessen and assuage the sufferings of humanity, and the farmer his guano and other fertilizers, to convert his barren land into teeming soil.

On comparing the acquirements of the present age — our comforts, our sanitary regulations — with the state of things even in the last century, it may with truth be said that human life has actually gained in duration, while its enjoyments have increased a thousand fold. Modern Chemistry has not attempted to convert lead into gold, but it has converted masses of comparatively useless matters into heaps of gold and better things. Millions of pounds sterling have been added to the wealth of England alone, and thousands upon thousands of individuals derive their subsistence from the direct