(*Continued from page 60.*)

Nitroglycerine was found so difficult to handle that five years afterwards Noble invented dynamite, which is simply a sand soaked with nitroglycerine. Other absorbents for it have also been used, and the giant powder so much used in western mines is a mixture of common gunpowder and nitroglycerine. The new blasting gelatine is simply nitroglycerine in which 7 or 8 per cent. of gun cotton has been dissolved. Lithofracteur, dualine, colonia powder, fulminatine, sebastine, serranine, rackrock, atlas powder, vulcan powder, neptune powder, forcite, are all mixtures containing nitroglycerine. Hellhoffite, carbonite, roburite and kinetite have nitrobenzol for the explosive constituent. Mellinite consists essentially of picric acid. As for smokeless powders their name is legion and it would be useless to go into their composition. One of them, however, may be mentioned, namely cordite said to have been invented by Sir Frederick Abel and Professor Dewar. It is said to consist of nitroglycerine and gun cotton or some other nitrocellulose, and to have been adopted by the British Government for the army and navy.

(Experiments were here introduced; the burning of gun cotton and of nitrocellulose.)

I have already indicated to you the percentage composition of the albumen of eggs, the casein of milk, and the fibrin of blood, and I might go on and characterise many other of the animal albumenoids which have been separated by chemists. This is, however, unnecessary for our present purpose and besides there have been detected in the examination of the animal fluids and tissues other albumenoids very difficult to classify under the headings which have so far been adopted by chemical physiologists. In fact; products seem to have been discovered which indicate the existence of transitions or gradations betwixt those albumenoids which have already been accepted as pretty well defined compounds.

There exists, however, another set of albumenoids in the bodies of animals which it is impossible in a lecture on Nitrogen to pass over without notice. Beilstein calls them the Protein substances of the connective tissue. In English they are sometimes called the fibrous albumenoids and are a very curious class of substances. To it belong hair, wool, glue, etc., which in spite of their different characters are similar in composition.