

Spontaneous Combustion.

It is a fact better ascertained than accounted for, that fixed oils, when mixed with any light kind of charcoal, or substances containing carbon, such as cotton, flax, or even wool, which is not of itself inflammable, heat by the process of decomposition, and after remaining in contact some time, at length burst into flame. This spontaneous combustion takes place in waste cotton which has been employed to wipe machines, and then thrown away and allowed to accumulate into a heap. We have known an instance of the kind in a manufactory for spinning worsteds, where the waste wool, or "slubbings," as it is termed in Yorkshire, was thrown into a corner and neglected. It then heated, and was on the point of bursting into flame, when the attention of the workmen was directed to the heap by the smoke and smell. In cotton mills the danger exists in a still greater degree, and it is believed that the destruction of many cotton factories has been occasioned by this means. The cause of this peculiar property of fixed oils deserves more attention than has hitherto been paid to it.

Petroleum 2,300 Years ago.

The collecting of Petroleum is generally regarded as a modern discovery made by Drake. But Herodotus, who lived 2,300 years ago—about the period of prophet Malachi—speaks of the collection of Petroleum in the island of Zante, on the western coast of Greece. Dr. Chandler, in the early part of the present century, visited Zante and found an oil well in full operation, thus confirming the narrative of Herodotus. The Patriarch Job had undoubtedly visited that well or some other one, a flowing well at that—otherwise he would not of thought of the "rock pouring out rivers of oil."—*Oil Trade Review.*

The Great British Coal Oil Case.

Our English exchanges contain full reports of the important case of Young vs Fernie, which involves the originality of James Young's patent for distilling paraffine or kerosene oils from Boghead and other coals. A large amount of evidence has been taken on both sides of the case, and numbers of chemists and experts have testified—some on the side of Young and others on the side of his opponent. What renders this case important is that some of the most widely known chemists express the conviction that Young's invention was really novel, while others equally eminent declare it to have no novelty whatever, and that his process had been used many years before his patent was granted. The decision of the court in this was regarded with much interest, for business operations of great magnitude are involved in the result.

The hearing of this *cause celebre* was spun out to THIRTY-FIVE DAYS, when both sides being exhausted, the Vice-Chancellor delivered a lengthy and elaborate judgment, the synopsis of which, was—"I find in favor of the plaintiff on all the four issues, and the defendant is to pay all the costs as they are taxed."—*Oil Trade Review*

The Machinery of the Human Body.

Very few mechanics are aware how much machinery there is, in constant action, in their own

bodies. Not only are their hinges and joints in bones, but there are valves in the veins, a force pump in the heart, and curicisities in other parts of the body equally striking. One of the muscles forms an actual pulley. The bones which support the body are made precisely in that form which has been ascertained, by calculations and experiments, to be the strongest of pillars and supporting columns—that of hollow cylinders.

A Skillful Colored Mechanic.

Prof. A. W. Smith, of the Naval School, Newport, R. I., exhibited at our office, a few days ago, a very ingeniously-constructed miniature steam engine and boiler of about 6-hp power, we should judge, which was designed and constructed by Benjamin Boardley—once a slave in Maryland. Attracted by the mechanical genius and skill of Boardley, a few gentlemen clubbed together and purchased him of his owner and gave him his liberty. He soon found employment in the Naval Academy, and under Prof. Smith he now has the sole charge of the philosophical apparatus of the institution.—*Scientific American.*

Eggs in Photography.

The *Scientific American* says:—"We are informed by Professor Seely, editor of the *American Journal of Photography*, that more than 1,200 dozen of eggs per week are used in New York and vicinity for albumenizing paper for photographs. A great deal more than this quantity of albumen is thrown away every week in the blood of the animals slaughtered for this market. Could some plan be devised for separating the albumen from the blood it would be a very valuable discovery."

Correct Speaking.

We advise all young people to acquire, in early life, the habit of correct speaking and writing, and to abandon, as early as possible, any use of slang words and phrases. The longer you live, the more difficult the acquisition of correct language will be; and if the golden age of youth, the proper acquisition of language, be passed in its abuse, the unfortunate victim of neglected education is, very properly, doomed to talk slang for education. Every man has it in his power. He has merely to use the language which he reads, instead of the slang which he hears; to form his taste from the best speakers and poets of the country; to treasure up choice phrases in his memory, and habituate himself to their use, avoiding, at the same time, that pedantic precision and bombast which show the weakness of vain ambition rather than the polish of an educated mind.

A Caution to Boys.

Boys, use no profane language, utter no word that will cause the most virtuous to blush. Profanity is a mark of low breeding and the tendency of using indecent and profane language is degrading to your minds. Its injurious effects may not be felt at the moment, but they will continue to manifest themselves to you through life.

They may never be obliterated; and when you grow up, you will find at your tongue's end some expression which you would not use for any money. And this expression was learned when you were a