

**LIQUID FUEL**

**Oil Better Than Coal for Many Purposes.**

Liquid fuel is coming into general use among engineers, and there can be little doubt that if road carriages are to be propelled by steam, the only fuel admissible will be some form of petroleum, says the National Recorder. At a late meeting of the Northeast Coast institution in South Shields, Mr. R. R. Wallis read a paper giving the results of many experiments to ascertain the calorific and evaporative value of various oils as fuel for steam raising. In comparing coal and oil he shows that the value of each varies greatly with the quality and circumstances under which burned, oil doing from one and a half to two and a half times the work of an equal weight of coal. This is accounted for, first, by the complete combustion of oil without loss of heat in soot or smoke; second, because there are no fires to clean with the accompanying loss of heat and fall of steam pressure, the pressure and revolution of the engines being maintained; third, because the boiler tubes are always clean and in the best condition for the heat from gases passing through them to the boiler, and fourth, because the temperature of the escaping gases may be lower than is necessary to create the draught necessary for coal firing. There are no bars nor thick fire for the air to force its way through; the required amount of air can be drawn through the furnace by a lower uptake temperature, and the admission of air being under complete control and the fuel burned in fine particles in close contact with the oxygen of the air, only a very small excess of air is required. It occupies, moreover, only half the space needed for coal.

**MET FIRST IN YOKOHAMA.**

**Though in New York They Had Lived for Years in the Same House.**

"It is a familiar saying," said a New Yorker, as reported by the Sun, "that people may live next door to each other in New York and never know each other at all, and it's quite true; and the same is true also of people living in even closer proximity in flats. I have lived for years in a flat and have never known even by sight the people living above or below me. In the case of a flat house, however, you are pretty sure to learn the names of the tenants. You hear them spoken in the elevator shaft by the grocer and the butcher, or you may see them yourself on the letter boxes in the vestibule of the building; but that in most cases would be as far as your acquaintance would proceed. I did once become acquainted with my neighbor in the floor below, but it was by chance, and in Yokohama.

"Your name is familiar," I said to him.

"And yours to me," said he; and when we came to compare notes we found that they had become so through the names on the letter boxes in the flat house at eleven hundred and 'leven-ty-'leven West 'Leventy-'leventh street,

New York, where we both lived.

"For years we had lived only 15 feet apart, but we became acquainted 10,000 miles away."

**NATURE'S OWN PROTECTION.**

**Explanation of Why a Swelling Follows from a Blow.**

The swelling which follows from a blow is nature's effort to protect the part from further injury and to keep it at rest while repair is going on, says the Philadelphia Times. What actually takes place at the seat of injury is not even now quite understood. The injury to the smaller blood vessels interferes with the flow of blood through them and the white corpuscles, with part of the serum, the watering part of the blood, escape into the surrounding tissues. At the same time the blood vessels in the neighborhood dilate and the increased flow of blood with the thoroughfare obstructed increases the swelling.

It is probable that the white corpuscles of the blood pass into the tissues to assist in the repair, as bees or ants assemble at an injury to their storehouse, but with this difference, that the substance of the corpuscles is probably converted into the tissue of repair. From one point of view the human body is only one gigantic colony of individuals, and the swelling that follows injury but the rush of these to repair the breach.

**Once Had Earthquakes.**

Southern Scotland and northern England are visited by multitudes of strangers each year, and many get as far as the Western Isles. Few of them, however, are reminded of volcanic phenomena, though columnar basalts, such as those of Fingal's cave, may sometimes suggest the thought of lava. Yet for long periods of time in the far past this region has been covered with volcanoes like Hecla, and lava sheets like those of the Snake river. Japan is not more plagued with earthquakes than England has been, and the quiet little island has had its Krakotoas. It may have them again, but there is no immediate danger.

**Queen Victoria's Voice.**

Queen Victoria's voice is exceedingly winning when she chooses to be gracious, although it can be sharp and imperious in reproof. It entirely lacks that species of harsh guttural tone and accent which is so remarkable in the voice of the prince of Wales and of his brothers and sisters.

**Irish Guards.**

It is quite possible that her majesty's jubilee year will be still further marked by the creation of a regiment of Irish guards, consisting of two battalions, one of them to be always on duty in London, with Dublin for its headquarters.

**Honey in Butter.**

Parisian restaurant keepers mix a little honey with their butter. This gives it an agreeable taste and flavor and makes the inferior butter more palatable.

**A CHILD'S LONG JOURNEY.**

**Travels from Finland to Alaska Unable to Speak English.**

Traveling from Finland to Alaska without speaking a word that anyone understood, without a single traveling companion, or without meeting a person who knew him from one end of the journey to the other, is no small undertaking, but it has just been completed by an eight-year-old boy, says the Seattle Times. Magnus Nessler left a pleasant home in far-away Finland on June 3 to join his father and mother, who are working at Douglas City. He made his long journey across the great pond in the steerage of one of the big ocean steamers. Here he was not so lonely, as there were other Finlanders on the boat who talked the language he could understand. At New York there was no delay, owing to a carefully-written shipping card which had been sewed securely on the back of his coat before he started on the long journey. This did away with the necessity of talking as far as his getting through without delay was concerned. His ticket had been purchased to cover the entire distance, and the card directed him to Circle City hotel, at Juneau. He reached Seattle in time to make good connections with the Alaska boat, and was forwarded to Douglas by friends. His father and mother have not seen him since he was a baby, over seven years ago, when they left Finland to come to the United States.

Magnus is a well-built boy, with hair and eyes characteristic of his race. He is exceptionally bright, and has already picked up some English. He made friends with everybody on the steamer with whom he came in contact, although he could only talk to them by signs.

**IMPROVEMENTS IN GILDING.**

**Modern Methods Insure Better and Less Dangerous Work.**

In nothing has the superiority of modern over former methods been made more manifest than in the various processes employed for gilding, says the St. Louis Globe-Democrat. Now the greater portion of gilded articles are gold-covered by means of the electrical bath. Formerly gilding was done by laborious and troublesome processes, in certain stages very detrimental to the health of the workmen. The old-time glider used an amalgam of gold and mercury, causing it to adhere to the bronze article by means of nitrate of mercury, the nitrous and mercurial fumes being poisonous, always endangering the health of the workman, and sometimes inducing incurable disease. Now the article to be gilded is placed in an electric bath, the current is turned on, and in a short time the piece is ready for the burnisher. Gilding by means of gold leaf and gold powder is still practiced, the work being mostly done by hand, but its delicacy is such as to require long practice and great experience. An amateur gilder has no earthly chance of success—his work will always show the inexperience of the workman.