Italian Petroleum.

This valuable mineral product is abundant in Italy, and remarkably pure. The city of Genoa was long lighted with crude mineral oil. In the provinces of Modena and Parma, it issues from the mud volcanoes, or from parts adjacent. A Mr. Fairman, of Pisa, has obtained from the Government the exclusive right of search in the rich oil districts of Reggio and Modena, besides an increased duty on the importation. He is now offering privileges on liberal terms to English capitalists. The U. S. consul at Ancona (Mr. Charles Ribighini), has lately placed upon the English market a very fine oil found in Southern Italy, which he calls from the place of its nativity "Toccolina." It is described as perfectly limpid, of a bright yellow, without smell, and of a gravity of 80° to 85°.

Cheese as food.

On page 54 we published an article on this subject from the *Scientific American*, a later issue says:—We remarked not long since upon the superior nutritive qualities of this food, as evidenced by the experience of laborers in certain countries, where it forms the strongest staff of life. We have since observed certain researches of a French chemist, M. Charles Mene of Lille, from which we learn that certain cheeses, specified as Dutch, Gruyère and Roquefort, contain from 26 to 40 per cent of nitrogenized matters, which are considered the most highly nutritive constitutents of food. Consequently these cheeses are from twenty-five to a hundred per cent more nutritive than bread or meat, which is set down at 22 per cent of nitrogen. In the combustible or fatty elements for heating the body by respiration, cheese yields only to butter or other fats. Again, in point of mineral nutrition, cheese is found pre-eminent, containing 7 to 8 per cent of ashes, whereas meat and bread contain only one per cent. The very richness of this article, however, prejudices its utility in delicate stomachs, where it is often found indigestible. The strongest food suits only the strongest digestion. The attention now given to an improved, economised and increased manufacture of cheese, is justified, and will naturally be stimulated by these facts.

Oil Tanks.

The foundation and part of the bottom of the second Iron Tank at the station is now laid, and if any one wants to see buisness and hear a clatter, let them make a visit to those iron tanks, whose appearance and gigantic proprtions are now astonishing the natives. The first one is completed inside, and the oil is now being pumped into it at the rate of 500 barrels per day. The oil is conveyed in pipes from the receiving tank, a distance of 60 rods, and forced over the top of the tank. The tank will hold nearly 6,000 barrels when full.—*Ibid.*

Dangers of Burning American Oil.

A well informed correspondent of a New York paper supplies the following:—

Very little of the refined petroleum sold by the retail dealer is even of fair quality. All, or nearly all, the prime oils are sold for export. If a refiner or commission merchant has a lot of inferior oil, either in colour or fire test, which latter is the index of its safety for use, he sells it to the jobber, who in turn sells it to the retailer; and thus it goes into consumption. Very few of those who use petroleum ever get a prime article or anything near it. The standard fire test for export is now fixed at 110 degrees Fahrenheit, which means that the oils standing that test will not give off a vapor that will burn until they have reached that point of heat. But their is an explosive vapor or gas generated at about ten degrees below this, or at about 110 degrees Fahrenheit. Now, oils that will stand the requisite fire test for export are very seldom sold for home consumption, the principal reasons being that the inferior oils of less fire test do not cost so much to manufacture, and hence are sold for a less price. I think I am safe in saying (and I have had long experience in the trade) that nearly all the oil sold at retail is under one hundred degrees fire test, which makes the explosive point about 90 degrees, and consequently dangerous to use: for at that temperature the lamp will be filled above the oil and may contain a gas that explodes the instant it comes in contact with the flame. In summer, when the temperature of the atmosphere is often above 90 degrees, all receptacles containing these light oils are simply magazines of danger only awaiting some unwary or careless hand to apply the match to spread death and destruction around. Furthur than this, much, very much, of the oil that is sold and retailed out for use to unsuspecting people will not stand a fire test of over eighty degrees, and samples can be obtained from almost any dealer in the trade of oils ranging from that up to one hundred degrees. Of course the lighter the oil the greater the danger. Another fruitful source of disaster in this connection arises from the use of a new class of illuminators called (Heaven save the mark!) "non-explosive oil." These are nothing more nor less than naptha, which is said to be rendered non-explosive by the use of chemicals. This naptha is so volatile that if left in open vessels it very soon disappears entirely, passing off by evaporation. This vapour will so saturate or surcharge the atmosphere as to cause the most terrific explosion. A lighted match or lamp in an atmosphere so surcharged has often produced the most disastrous results, as witness the fires at our oil yards, at the wells and in many refineries that are burned. Nearly all these fires can be traced to the surcharged condition of the atmosphere at the time with these carbon gases. Good refined petroleum is as safe to burn in a lamp as whale oil. It generates no explosive gas, exeept at a heat that is never produced by any ordinary use, and it is deplorable that an article of such vast consumption, and so benificent in its influence in all the world, should have to bear the odium which inevitably attaches on account of the many terrible disasters arising from the cupidity and dishonesty of those who cheat the public with those inferior and dangerous compounds.—*Petrolia Sentinel*

Harden a steel bar to its maximum, and it will expand to a degree which may be represented by 84; the same piece of steel rendered as soft as possible will only expand to 62.