

NEW ALLEGED DISCOVERIES IN PETROLEUM.

The *Oil and Drug Reporter* has been shown specimens of what were claimed to be saponified petroleum. These specimens were shown in different forms—as emulsion, paste and cake. "Upon a close inspection," says the *Reporter*, "they appeared to be perfect specimens of saponification, and we were assured that no oleaginous matter, except petroleum oil, was introduced in their composition. These seemed to be a practical contradiction of the theory that petroleum oil cannot be saponified in the very nature of things. Such has been our impression, not from actual experiment, but based upon the statement of experts, who insist that petroleum can be rendered miscible only, and we know that it has been tested by various parties with great care and persistence. We confess our incredulity in the matter, but it is not safe in these days of discovery to doubt the solution of any scientific problem, and we can only say that we hope the enthusiastic author of this long-sought consummation is not deceiving himself. They are claimed to be applicable to the purposes of scouring and finishing in textile manufactures; to domestic and toilet articles, and by reason of their antiseptic and healing properties, to medicinal preparations. But this is not all. We are assured by the same gentleman that he had eliminated an aniline black from petroleum, which was at once dense, brilliant and permanent; air and exposure to light serving to intensify and make it more firm. This, too, if it shall be assured, will prove another great achievement in industrial art."

In connection with the above, Maj. Henry Howell, of Sarnia, Canada, claims to have discovered a new process of refining petroleum without the agency of heat. A sample manufactured from American petroleum of 45 gravity is stated to be a very brilliant and white oil of 48 gravity and 122 fire test. The yield from the crude was 93%. But the most extraordinary claim for this process is not merely that the means used are entirely mechanical, but also that there is no production of gasoline or benzene, and the entire product is standard white illuminating oil, superior to the oil refined under old methods. This new process, if what is claimed for it be true, is just precisely what the producers have been looking for. But how the lighter parts of crude petroleum can, by a mere mechanical process, be retained so as to stand a fire test of 122°, is something truly wonderful, and is simply equivalent to a mechanical decomposition of a chemical compound.

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N. B.—A copy of Marshall's magnificent steel plate engraving, "The Farmer's Pride," is delivered free to every subscriber of the *American Agriculturist* who sends 20 cents extra to cover cost of packing and postage.

ANCIENT LETTERS IN MODERN TATTOOING.

At a recent meeting of the British Anthropological Institute Mr. Park Harrison read a paper on some characters which are still in use as tattoo marks by the Motu, a people located in the southeastern peninsula of New Guinea, and described by the Rev. Dr. Turner as a race superior to the Papuans, from whom they differ both in color and customs. About half of the more

distinctive forms tattooed on a Motu girl, carefully copied by Dr. Turner, correspond with letters in the Asoka inscriptions in India, which are believed to be allied to Phœnician, while several others resemble letters admittedly derived from the same stock, but independently acquired. The marks are mostly arranged in groups of three; on the right arm, however, nine or ten are apparently connected by a line running above them all. The characters are twenty-three in number, and are formed of straight lines in the following combinations, viz.: five of 2 lines, nine of 3 lines, five of 4 lines, and three of 5 lines, much in the same proportion as in the Rejang and Lampong alphabets of Sumatra, the letters of the former of which have been shown to be identical with Phœnician characters reversed. Archaic forms of letters have also been met with in several islands of the Indian Archipelago and Melanesia, but are now without meaning. The Motu characters are used simply for ornament or as charms. As an example of the use of letters for tattoo marks, the case of the Austrian subject was cited, who, having been taken prisoner in Burmah, a few years ago, was there tattooed with letters and other patterns. Besides the characters on the Motu girl, there were various pictures, or hieroglyphics, consisting of eyes and eyebrows, a lunar crescent, and other forms.

BRAIN WORK AND SKULL GROWTH.

The *London Medical Record* sums up as follows the results of some very interesting measurements of heads by two French physicians, Messrs. Lacassagne and Cliquet:

Having the patients, doctors, attendants, and officers of the Val de Grace at their disposal, they measured the heads of 120 doctors of medicine, 133 soldiers who had received an elementary instruction, 90 soldiers who could neither read nor write, and 91 soldiers who were prisoners. The instrument used was the same which hatters employ in measuring the heads of their customers; it is called the conformator, and gives a very correct idea of the proportions and dimensions of the heads in question. The results were in favor of the doctors; the frontal diameter was also much more considerable than that of the soldiers, etc. Nor are both halves of the head symmetrically developed: in students, the left frontal region is more developed than the right; in illiterate individuals, the right occipital region is larger than the left. The authors have derived the following conclusions from their experiments: 1. The heads of students who have worked much with their brains are much more developed than those of illiterate individuals, or such as have allowed their brains to remain inactive. 2. In students the frontal region is more developed than the occipital region, or, if there should be any difference in favor of the latter, it is very small; while in illiterate people the latter region is the largest.

WOMEN INVENTORS.

The question is often asked us: Do the inventions of women ever amount to anything? From our long experience with inventors of both sexes, we conclude that a larger proportion of inventions patented by women prove useful and profitable than those of the sterner sex. We see by the *New York Sun* that the Metropolitan Elevated Railway Company has selected a device, from the many that have been under consideration, for lessening the noise of the trains, and that it is the invention of a Mrs. Walton, of this city. The plan consists of boxing the rails in a mixture of sand, tar, and cotton, and has been under test for two months on several blocks of the road in Sixth avenue. The ringing of the wheels on the rails, which makes a large part of the objectionable sound, is considerably deadened. She gets, according to the *Sun*, \$10,000 for the use of the invention on the Metropolitan line, and the company is to control its adoption on other roads, paying her a royalty.

TOBACCO SMOKE.—The authorities of several German cities, says *Chambers' Journal*, have been seriously considering the evils resulting from smoking, now so generally practiced by boys. In certain towns, the police have been ordered to forbid all boys under 16 to smoke in the streets, and a punishment by fine or imprisonment is meted to offenders. It has been the testimony of several eminent physicians that the too general and excessive use of tobacco is the main cause of color blindness, now occasioning such great anxiety from its influence upon railway and other accidents, and also upon military efficiency.