Floyd's Wonderful Fire.

Paste When Once Ignited Nothing Can Put Out.

A Boon for the Housekeeper in Regions Where Gas is Not Obtainable.

Cincinnati Enquirer.

There is a fire that never dies, and it is here, and in this world, too. This strange fire is of the consistency of paste, and it is harmless while in a quiet state. The friction caused by rubbing it against a hard surface will, however, set it aglow, and nothing will extinguish the flames, which will burn with a blue light and an intense heat until the compound is completely destroyed by combustion. Water has no effect upon it; it can be made into balls and thrown anywhere, and it will burn with a slow but fierce combustion, which makes it unlike any known fire.

Dynamite and gunpowder require a spark to ignite them, and powder produces an explosion, not a regular fire. To ignite this compound there is just the slightest friction of rubbing it against some ordinary substance. There is no explosion or rapid spreading of flames, but a strange, pasty substance composed of living fire, which cannot be stamped out or killed in any known way.

John Floyd, the discoverer, has been for several years delving in all sorts of chemicals, as his numerous inventions required constant study. One day he wished to make a certain substance with which to experiment, and for that purpose placed in a liquid some waste substances which he thought would, when dissolved, produce the wished-for compound. But he found the material he wanted before the liquid was dissolved, so he left the jar containing the solution on the shelf for several weeks, thinking no more about it.

Finally he thought of using the jar, and, when lifting it down from the shelf, some of the liquid spilled on the floor. Mr. Floyd thought nothing about the matter till he noticed a sensation of heat about his foot, and on looking down found that the soft paste which had fallen out of the bottle had become a mass of soft, flickering flames, emitting an intense heat. He put his foot on the spot, stamping it out, as he thought, and turned to his work.

When he turned around again he saw that instead of going out, the fire paste was steadily burning, that his rubbing it had only smeared it over the floor, and it was eating into the wood every moment. He then threw several buckets of water on the stuff, but the water had no effect other than to be converted into puffs of steam, and the fire burned steadily on, cutting its way through the soft pine flooring. As the experiments were being conducted in the back of a drug store, which was filled with dangerous chemicals, he knew that something must be done to put a stop to its ravages, or the whole place would be blown to atoms.

After many fruitless attempts to put it out, he procured a hatchet, and it was only but cutting out the entire square of wood on which the paste rested that he succeeded in stopping the fire, which burned for at least an hour.

Afraid of the uses to which this discovery might be put, Mr. Floyd has never made the secret of the ingredients public; but he says that the cost of making it is so small that it can easily be used instead of the cheapest waste materials. And for that reason he will not let the formula become known, for incendiaries would take advantage of it, and no place would be safe from burning. Those who use oil or dynamite can be easily traced, as some preparation is necessary, but with this liquid fire a criminal who knew its composition could burn his way noiselessly through any door or set any home on fire by throwing against it a noiseless ball of the composition.

The cost of making this liquid fire is so small that it can be easily used instead of coal in heating a furnace. But the most valuable properties are those which it possesses which are absolutely foreign to those of fire as known to us. All forms of heat, except that of electricity, must be generated in some kind of a furnace and be constantly supplied with fuel, but this fire is both flame and fuel itself. About a cupful can be set on fire and it will burn with a steady glow for an hour.

This wonderful fire can be utilized in the kitchen, and stoves can be dispensed with altogether as entirely useless. In order to fry anything it is only necessary to hang the pan from a wire and smear over the bottom with a spoonful of the liquid. In an instant there will be a hot fire which will burn for over an hour. So that the cook of the future can take her fire out into the country; it can be used in cooking in camping; there will be no coal bills, but the work of heating furnaces, of burning fires in grates, or running motors can be done by a harmless little spoonful of paste, which can be taken around in the vest pocket.

Of its practical uses there is no end, for the subject is yet in its infancy, the inventor, thinking but of the harm that might come, having stopped his experiments. He, however, says he intends to resume them and find out more about this explosionless, noiseless, unquenchable paste, which is fire pure and simple.

HOW TO KEEP WRINKLES AWAY.

A simple preventive against the appearance of wrinkles is this: Saturate a soft towel in very hot water, wring it and apply it to the face, keeping it there for at least twenty minutes. Then dry the face very gently. This must be done just before going to bed. When traveling, if the skin is very sensitive, do not bathe the face except at night, and in the morning, and then throw a few drops of tincture of benzoin into the water, so that it may be made soft and agreeable to the skin.

MIGHTY MILITARY POWER.

Russia's Army Is the strongest and Best Equipped in the World.

As the military forces of Russia on a war footing contain upward of 3,000,000 combatants, it would appear that something more than "coercion that does not of itself mean war" would be required to enable any nation of Western Europe to settle the Eastern question without first consulting the Czar. This vast army is raised throughout the Russian Empire, liability to serve being almost universal, says the Pall Mall Gazette. As a rule, service with the colors last for five years, and in the event of a mobilization of the forces the field troops would be brought up to war strength by calling in reservists who had served five years in the ranks. The field troops and field reserve troops, together numbering 2,000,000 men, would be formed into field armies, which would each comprise a number of army corps, rifle brigades and reserve divisions. The remainder of the forces consist of fortress and depot troops and imperial militia.

The "three-line rifle, pattern 1891," has been introduced in place of the single-loading Berdan rifle. The new rifle carries five pounds in the magazine, is of small caliber (.3-inch), and has a smokeless ammunition. On service the bayonet scabbards are left at home and the quadrangular bayonet is carried fixed. The barrel of the rifle is uncased and screwed into the body, an arrangement which helps to lessen the weight, and, in fact, the rifle, with bayonet fixed, weighs only about nine an one-half pounds, or about one pound less than the Lee-Metford rifle and bayonet used in the British service. The regulations recognize four kinds of infantry fire, viz., volley fire, which may be used at all ranges; individual fire, which is employed up to 500 to 600 paces; individual concentrated fire (the fire of all the men, or a section or squad at a common object), used to 1,200 paces; a mass fire, at greater distances than 1,200 paces. When within 200 or 300 paces of the enemy, fire attains its maximum intensity by the employment of magazine fire. After a successful bayonet charge the shooting line must continue its advance to the far side of the captured division and press the enemy by a rapid fire. A frontage attack must be supported by one on the flank. When acting on the defensive, infantry must put forth every effort to shake the enemy by fire and then attack him with the bayonet.

Throughout the Russian cavalry the men are armed with a curved sword, 34 1-2 inches long, and rifle and bayonet. In the Cossacks the front rank carry a lance. In artillery the Russians are particularly strong, and their armament and projectiles are of the latest and most approved patterns. The active army and field reserve troops alone contain upward of 500 batteries, manning over 4,000 guns. General staff officers form a close corps and are recruited from those who pass the general staff academy. The duties of the general staff, broadly speaking, include the movements and operations of the army, intelligence of the enemy and reconnoissance of the theater of war.

It is laid down that on marches, when at a distance from the enemy, it is of the first importance to study the comfort and convenience of the troops by separating arms and sending on billeting parties and bakers to provide for the wants of the troops beforehand. When near the enemy, however, and on a march that may lead to an encounter, the troops advance closed up as much as possible in columns and aim mainly at swiftness and secrecy.

MANGELS IN HILLS.

John Pyke, York county, in Farmers' Advocate: My mangels were grown this year in hills, as one would grow corn. I manured the land in the fall, and as soon as it was dry in the spring a gang-plowed it. Then I worked it up as fine as I could and rolled it with a heavy roller. Then I marked my whole ten acres of mangel ground, both ways, 30 inches apart. The planting was done with a corn planter, which I gauged to plant about four or five seeds at each hill or square. When the plants were large enough to thin I scuffled them one way, and as soon as I had them thinned I scuffled them both ways. I left, as a rule, two mangels in each square, but in a few places I left only one plant, and when I pulled them each of the two mangels grown side by side were just as large as those grown singly. I am well pleased with the way my crop turned out. They were of a large, even size. I am sure I had one-third more mangels to the acre by planting them this way than if I had planted them in drills.

TONS OF GOLD IN THE SEA.

Every Cubic Yard Contains at Least Two Cents Worth—Whole Amount Is Perhaps $75,000,000,000,000,000.

It has remained for an eminent chemist in the University of Sydney, Australia, Prof. Liversidge, to offer, not only conclusive proofs of the presence of gold in the ocean, but also to determine with some degree of precision the amount.

This Australian professor has demonstrated that all sea water contains more than half a grain per ton, and that much of it contains more than a full grain.

At from half to one grain per ton, a cubic mile of sea water contains between 130 and 260 tons of solid gold. At $20 an ounce—the actual value is somewhat in excess of this—a ton of gold is worth a little short of $500,000. In other words, a cubic mile of sea water contains gold to the value of between $65,000,000 and $130,000,000.

At half a grain per ton, the total amount of gold in the sea would be above 35 million billions. At one grain per ton it would be just twice this—in figures, $75,000,000,000,000,000.

The total amount of gold in all the world at the present time is calculated at something like $5,000,000,000 of $6,000,000,000. The computed wealth of the United States, and this is the richest nation on earth, is something like $60,000,000 or $70,000,000,000. The gold wealth of the ocean is a million times this.

But in the practical American mind the question remains, Can the gold in the sea water ever be extracted at a profit?

Prof. Crocker, of Columbia, one of the foremost electricians of this country, suggests the possibility of success by electrical action between plates suspended in sea water.

"If there is sufficient gold in the sea water a current of low voltage passed through the water will cause a deposition of the gold. This is equally true as regards silver. The current will attack gold and silver before any other substances. It remains to be determined whether so small a quantity as a grain or a half grain could be precipitated.

"I am very far from saying that the thing is possible, but at the same time there are no flat impossibilities on the face of the matter. What I mean is, just as I said at the first, that if there is a sufficient quantity of gold in solution it can be precipitated electrically, and the only further matter to be determined is whether this can be done at a sufficiently low cost to make it profitable.

"A grain of gold is worth about a nickel, and half a grain 2 1-2 cents. A ton of sea water is roughly about a cubic metre—a little more than a cubic yard. Reduced to its simplest terms, the problem is: How much of it will cost you to get it? These are purely matters for experiment and I do not doubt that some one will make the practical test."

It is indeed possible that these tests will be made in the Columbia School of Mines, under Prof. Crocker's direction.

The ocean is not only a stupendous gold mine, and silver mine as well, but it contains enormous stores of rare and valuable chemicals, such as iodine and bromide besides. Some chemical genius may some day find a way to obtain these latter chemicals from the sea water cheaply, and then it may be that the gold and silver of the sea will be saved as a bye-product of this process.

MYTHS ABOUT MONKEY TALK EXPLODED.

Mr. R. L. Garner, whose professorship in simian tongues used to be talked about a good deal, is having a rough time with his new book. Mr. Labouchere, the editor of Truth, has paid considerable attention to this gentleman in the past two years, with the result that the critics were primed with facts which they use mercilessly in ridiculing his work. When Garner passed through London on his way to Africa I saw something of him and tried to help him, but while he was absent officials just home from the Gold Coast told me that he was a fraud.

When Garner returned his yarns quite confirmed this view. Finally he said that he had a lot of photographic negatives which he had taken of gorillas and other apes by an ingenious invention of his own, consisting of wires which caused the advance of the animal itself to make the exposure. The only trouble with these negatives was that the London photographers were not able to make good prints from them. I offered to make the prints myself, and we fixed an appointment for the next day, when Garner should bring the plates to me, but he did not turn up, and I have never heard a word from him since.

ONE ON THE MISSIONARY.

Rev. Dr. J. F. Masters, a missionary in China, says the Chinese work for heavenly is "teen," with an aspirate on the vowels. The missionary left out the aspirate, with the result that the word meant "crazy." After Dr. Masters had studied Cantonese a few months he endeavored to preach a sermon. He wrote it out carefully, but made so many blunders in tone, vowel quantities and aspirates that some of the Chinese remarked how much the English language resembled the Chinese. They supposed he had been preaching in English! On another occasion he meant to order a roast chicken, and told his cook to go out and set fire to the street.