Senator from Virginia.

MAKES FUEL OF ASHES

REMARKABLE DISCOVERY OF A POOR PENNSYLVANIA COBBLER.

Mysterious Solution Revivifies Waste Product of Coal—Pennsylvania Road Said to Fear the Secret.

Altoona, Pa.—John Ellmore, the inventive shoemaker, whose worldly possessions in his cobbler's shop and his home would not bring $200 on the block, has within his grasp millions of dollars and possesses the power, if exerted by men shrewder than himself, to restrict the coal output of the United States and so decrease its value. Although the Pennsylvania railroad professes indifference, it is understood that a secret uneasiness prevails, for if Ellmore's discovery comes into use the present price of bituminous coal cannot be maintained.

Without any knowledge of chemistry and so illiterate that he is compelled to seek assistance in writing to drug houses for his ingredients, Ellmore has succeeded in producing a compound which revivifies or recreates the combustible element in common coal ashes, at the same time creating a heat of greater intensity than that evolved from the highest grade of soft coal when fanned by a forced draft. A correspondent saw this demonstrated in an ordinary cellar furnace, when six parts of coal ashes and one part of coal, all saturated with the cobbler's mysterious solution, produced a white hot fire, whose caloric heat was more intense after it had been burned two hours than it was at the end of the first hour.

Two teaspoonfuls of Ellmore's compound, costing 25 cents, and dissolved in three gallons of water, is sufficient to treat three-quarters of a ton of ashes mixed with one-quarter of a ton of coal, and will bring out more heat and evolve it for a longer period than one ton of pure coal, bituminous or anthracite. The high freight moguls on the Pennsylvania road use a ton an hour running on the level and six tons an hour running up grade. This could be cut down from 60 to 75 per cent. and the steam generating power increased from 20 to 25 per cent. by the shoemaker's discovery.

So convinced is Dr. Hoy, one of the leading practitioners of Altoona, that Ellmore's secret will revolutionize the output and use of coal as a fuel, and that the discovery is one of the most remarkable of the age, that he has agreed to back the manufacture of the compound, and to enlist capital to produce it on a large scale. When first approached by the shoemaker eight months ago, Dr. Hoy refused to consider the fuel saving plan at all, but finally was persuaded to make a test of it in his own house furnace.

Ellmore did not have money enough to pay for a patent or employ an attorney. His income from his bench is between $10 and $12 a week. He is 57 years old, and with a wife and family and house rent of $15 a month to pay, every penny he could earn was expended, and he ran into debt. Dr. Hoy made his first test on January 30, and successive tests followed for 20 days. He timed the period of combustion of coal and the amount consumed, and then timed the mixed ashes and coal saturated with the compound. Not only did he obtain a fiercer heat, but the mixture of ashes and coal and after treatment burned from one-third to one-half an hour longer.

After satisfying himself thoroughly he entered into an agreement with Ellmore for a half interest and immediately made application for letters patent at Washington and from the Dominion government in Canada. Similar application will be made in England, and in all the countries of Europe, where patents are granted.

Living Too High; Clerks Act.

Washington.—The increased cost of living has led to the formation in this city of the Government Clerks' Cooperative guild, which proposes to establish a general department store, to be patronized exclusively by government clerks in the District of Columbia.

HAD STEEL BAR IN HIS BODY.

Surgeons Remove Splinter from Sailor Who Served in Battle of Manila.

New York.—After unconsciously carrying a piece of steel weighing two ounces in his body for eight years, Lee Herlin, 25 years old, has left Bellevue hospital with the foreign body removed.

He had been operated on in all eight times for various complaints, the physicians not being able to tell what the trouble was. He went to Bellevue last December and fell under the care of Dr. Mabey, who used the X-ray and after a delicate operation removed the piece of steel.

Herlin entered the United States navy when a young man. During the trouble with Spain he was sent to San Francisco and as a sailor went on the cruiser Baltimore. On June 11, 1899, Herlin was standing near a small rapid fire gun when it exploded. He was wounded by the fragments and treated on the hospital ship of the fleet. His wound healed and it was not known that there was a piece of the exploded gun still in his body.

After that the sailor's health failed. When the war was over he went to the Brooklyn Naval hospital, where it was decided that he was suffering from an abscess of the liver. He was operated on without success. Later physicians in another hospital decided that Herlin's appendix was causing the trouble and they promptly cut it out. Last December Herlin suffered so much that he decided to take another chance.

He went to Bellevue when Dr. Mabey of the surgical division treated him. The physician noticed a peculiar hard lump on the man's back and decided to use the X-ray. The first application of the piercing light revealed the true state of affairs. When the X-ray picture was developed it showed plainly the piece of steel.

LURES LOVERS WITH CASH.

Idaho Man Offers $1,000 Each to Men Who Wed His Eight Daughters.

Pocatello, Idaho.—Edward Slack, a middle-aged widower living near Elba, southwest of here, who has made a considerable fortune in mining operations in Idaho and Montana, offers to give $1,000 each to the men who marry his eight daughters, none of whom has ever had a husband.

Slack makes his unique offer upon conditions, however, that bar the great majority of marriageable men from aspiring to lead his daughters to the marriage altar. No man will be eligible to marry one of the daughters who was not born west of the Missouri river and who was not living in Idaho or Montana at the time of his proposal of marriage. Nor will any man be eligible who is not between 21 and 40 years of age, who can not furnish a certificate of good character from the pastor of the church to which he belongs and who can not satisfy Mr. Slack beyond all reasonable doubt that he does not smoke, chew, drink, swear or gamble.

Slack says he has laid by $8,000 to be given his sons-in-law and that each of them will be given $1,000 on his wedding day. The daughters are western bred girls and the oldest is 37 years of age. They are regarded as ordinarily attractive.

Plans Honeymoon in Airship.

Syracuse, N. Y.—J. Albert Plant of this city, who has just been married to Miss Amelia Welter, startled his friends by announcing that they would go on their honeymoon in an airship, upon which he has been working two years. Mr. Plant has done his work in the barn. The machine is run by fans and a 20-horse-power motor, and in a 30-mile wind can speed 40 miles an hour, says the inventor. It will be equipped with fuel enough to last two days. Mr. Plant will go to France next year to fly in the $50,000 races, and in the meantime will take several journeys around Syracuse.

Build a Nine-Man Balloon.

Philadelphia.—The largest balloon in America is now being built for the Philadelphia Aero club, of which A. N. Chandler is president. The balloon, which will hold 92,000 cubic feet of gas, will be christened the Ben Franklin. The basket will be capable of holding nine persons.

MAKE QUARTZ GLASS

WASHINGTON SCIENTISTS DISCOVER NEW PROCESS.

Feat Achieved by Carnegie Laboratory Workers After Many Fruitless Experiments—Value of the New Product.

Washington.—One of the most important commercial developments from the work of the Carnegie geophysical laboratory in Washington is the possibility of manufacturing quartz glass.

Dr. Arthur L. Day and E. S. Shepherd are the two men who have achieved the feat. They do not take any interest in the commercial possibilities of the matter. Dr. Day, for instance, says that they have shown that the thing can be done, and now if a commercial company wants to take it up it can do so, all of the facts having been made public in the scientific press and before learned societies, so that there is no possibility of anyone getting a patent on it.

The value of quartz glass over ordinary glass is that it can be heated to a temperature of about 1,000 degrees Centigrade without softening, and its expansion under any ordinary heat is so trifling as to be almost a negligible quantity. It also can be heated almost red hot and plunged into cold water without cracking and has the peculiar property of allowing the passage of the ultra violet light rays, making it remarkably valuable in photography.

The value of quartz glass had been recognized for a long time, and owing to the cheapness of German labor it had been manufactured in a way for laboratory use in the form of tubes by heating small clear quartz crystals and sticking them together. The tubes and other vessels thus built up were rough, patchwork-looking affairs, but served a number of useful purposes. However, there was no way of manufacturing the substance into glass sheets of any size because random masses of broken quartz could not be fused together without having the resultant glass full of air bubbles.

The workers of the Carnegie laboratory tried all sorts of methods. If the quartz was intensely heated, free silicon was deposited on the inside of the air bubbles, and the glass was spoiled in two ways, instead of one, which was a-plenty. The final solution of the problem was found in heating the quartz to the melting point, about 4,000 degrees Fahrenheit, and then subjecting it to an air pressure of between 400 and 500 pounds. After this it was allowed to gradually cool. The air pressure squeezed out the air bubbles, and the result was a solid and clear mass of quartz glass. The plates that have so far been made are only about three by five by half an inch in size. The bubbles are few, not over one-half a millimeter in diameter, and are not frequent enough to interfere with the use of the glass for lenses, mirrors and other optical work. The experimenters think that a little more skill and experience would enable them to make the glass entirely free from flaws.

The value of the glass in photographic work is due, as has been said, to its property of allowing the passage of the ultra-violet rays, which are the rays that do the actual work in photography. In this connection the glass will be peculiarly valuable for the Cooper-Hewitt incandescent light tubes, such as are now in use in the post office building. These tubes are very valuable now for photographic work, but with the quartz glass tubes they will be immensely more so.

The glass, when it is once made, can be blown or pressed or cut like ordinary glass. It takes a much higher degree of heat to handle it, the oxyhydrogen blow-pipe having to be used, while the material has to be worked much more quickly than ordinary glass.

As to the cost of the process, Dr. Day would attempt no estimate, merely saying that they had spent a great deal of money in doing as much as they had done, but that probably if the thing were done on a commercial scale and a larger unit of production adopted the cost would be considerably reduced.

The cylinder where the glass is made is a powerful iron "bomb," lined with graphite, and one of the problems in working on a larger scale would be to secure larger sheets of graphite for this lining. These sheets could be supplied only by one of the big companies now operating at Niagara.

WOMAN SINGS SELF TO DEATH.

Ranchman's Wife Has Hysterics Until She Is Exhausted.

McPherson, Neb.—Mrs. Amanda Hill, wife of Morris Hill, a ranchman living in this county, literally talked and sang herself to death.

She had been an acute sufferer from a nervous affection for a number of years, and her malady did not yield to medical treatment.

At times she became hysterical, but her hysteria was of the usual kind until a few days before she died. Four days before her death she began to talk and sing, and she talked and sang almost constantly from that time until, completely exhausted, her heart ceased to beat.

Her talking and singing were evidently of a hysterical nature, and she was unable to cease either. She was requested and commanded to keep silence, but could not do so.

NEED FLEET OF AIRSHIPS.

British Officer Calls It a Necessity for the Country.

Col. J. E. Capper, who is in command of the balloon section at Aldershot, England, is quoted as saying that "the British government for many months past has been making experiments with a view to a possible aerial war, and arrangements are already in progress for the formation of a home and attacking fleet of airships. Between 400 and 500 men are being trained for service in Britian's future aerial fleet. This aerial force will consist of balloons, kites and aeroplanes."

He adds: "An aerial section to our army is not the mere hobby of ambitious inventors, but is an absolute necessity if we are to continue to hold the same position in the world which we do now. If once the British people really wake up and take an intelligent and business-like interest in flying machines we shall make great strides toward solving the aerial problem and toward the construction of an aerial branch to our flying forces.

"I do not wish to prophesy, but in the future—perhaps some 20 years hence—airships will be so common that there will be legislation for them in the same way as there is now for motor cars and other road traffic."

IRISH AND SCOTCH HUMOR.

Dissertation by Great Writer on the Two Schools.

Life is grave. But it is a good thing to laugh. In Ireland the humor is of a kind that is not found beyond the soil of the emerald isle, writes Ian MacLaren. The Irish act as if every one of them had been stood on his head so that his thoughts would be unusual, and perhaps this same is best illustrative of Irish humor. It is unusual. The essential character of Irish wit is drollery. But that of Scotch wit is its irony, somberness, its searching character. To put your finger on Scotch humor and define it is like catching the fragrance of a flower in the hand. English intelligence hardly ever grasps it. An Englishman merely suspects it. It is thorough and irresistible—not fun, drollery or wit. To illustrate: An Englishman is always "comme il faut" at a wedding, in dress, speech, etc., while the Scotchman takes the lead at funerals. A Scotchman never knows how to blend, as it were. He can't express his thoughts. Black is his congenial color. His face accords—but it is not black in color. It is the atmosphere of the awfulness of life in him. He creates the atmosphere desired for a funeral.

The Manners of American Women.

"I have often wondered, say, if the address of so many of the persons of either sex serving in so many of the shops had originally come after or come before the address of so many of their customers of both sexes. I had held my breath on certain occasions to hear these parties all imperturbably stand and bark at each other (since that affected me, inveterately, as the nearest image for their intercourse); and would have given worlds to be able to make out, in the spirit of the historian, which, in the bright morning of our national life, could possibly have begun it. One of them must, the hearer could but helplessly suppose; a consensus, a coincidence more precipitate and instinctive was too difficult to imagine. No, one of them had to be responsible for the other, since what social order with any self-respect would consent to be responsible for both? There were times when I inclined, on certain showings, to lay the burden on the shop people; but then, again, as sundry accents from the other side of the counter smote my ear, who would be so bold?"—Mr. Henry James, in Harper's Bazar.

"Drunk" in French.

The French have some interesting similes of their own corresponding to our "drunk as a lord" or "drunk as a wheelbarrow." The most generally recognized one in the case of "ivre," the less extreme and less vulgar word for "drunk," is "ivre comme une soupe"—"soupe" meaning the piece of bread eaten with soup as well as the soup itself, and a "bouillon" soaked piece of bread offering a natural simile for saturation. When the less delicate "soul" is used instead of "ivre," the Frenchman may speak of being as drunk as an ass, a cow, a Swiss, or a thrush. The allusion in the last case is to the fondness of thrushes for grapes, which are said at vintage time to make them unsteady in their flight.

Daring Woman Explorer.

Mrs. Theodore Bent, whose appearance suggests rather the drawing-room than trackless deserts, has outstripped many a male explorer in her daring and her defiance of fatigue and danger. Not long ago when she was traveling with her husband in South Africa, she had many a narrow escape from cowardly bullets, and once she was ordered to dismount "in order that her throat might be cut." Mrs. Bent, it may be interesting to add, travels in "a tweed coat and skirt coming well over the knee breeches, gaiters and shoes." She wears a pith hat and always sleeps in a hammock.

Awkward Politeness.

Caller—So sorry to hear of your motor accident.

Enthusiastic Motorist—Oh, thanks; it's nothing. Expect to live through many more.

Caller—Oh, but I trust not.

CAUSE OF LEAVES TURNING.

It Is Not Frost, Although It Is an Opinion Extremely Common.

The common idea regarding autumn coloring is that frost causes the brilliant color of the leaves. This popular fallacy is without any foundation in fact, for frost has absolutely nothing whatever to do with tinting the leaves, except that it hastens their fall.

Let those who do not believe this statement go out in the swamps two weeks or even a month before frost, and they will find occasional maples as scarlet as they ever are seen in September or October.

It is a curious fact that young trees are the first to turn red. Autumn coloring is actually due to oxidization, which is caused by the action of light and heat, somewhat similar to the rust on iron. With leaves it is due to the fact that in fulfilling their mission they become choked by their own exertions and the acids thus formed are acted on by the oxygen.

In extremely moist atmosphere the colors are not usually very bright, as in England, for example. And in very dry climates the leaves dry up suddenly and their skin, which is very thick to prevent the escape of moisture, is not sufficiently transparent to allow the color being seen beneath. In the regions where the autumn foliage is most vivid an average season produces the finest colors. Neither a very dry nor very wet summer and early autumn will result in much brilliancy.

The extraordinary range of colors in trees of a single species is noticeable, particularly so with the sugar maples, and it is remarkable that an individual tree will continue the same color year after year; not only that, but the same branch will show the first tinge of color year after year.

NICKELS ALWAYS IN DEMAND.

How Baby's Advent Creates Demand for Special Coin.

"Pardon me, conductor," said a mild looking man on the rear of a Gates avenue car, "but I gave you the last nickel I had. Would you mind changing this quarter for me?"

"Sure," responded the conductor, with a broad grin, as he handed out five nickels. "Baby, eh?"

"That's it," responded the passenger, as he passed inside.

"Say!" inquired another platform passenger, "what's the connection between babies and nickels?"

"That's easy," answered the conductor. "That fellow's got a nickel-in-the-slot telephone. When he asked me for nickels I made a guess at the baby proposition, for when there's a baby in the house the father figures he may have to dig up a doctor during the night, and the people who use the slot telephone know that the telephone girls are mighty reluctant in accepting any there-isn't-a-nickel-in-the-house story. I catch a lot of those fellows on the car."—Brooklyn Eagle.

White and Black Diamonds.

The young girl extended her black satin shoe and the buckle of brilliants flashed and glittered.

"We all wear diamonds on our shoes," said her companion, a chemist. "My shoes are covered with diamonds, but I am not proud of it—I don't put my foot out."

Drawing in her foot, the young girl said:

"What do you mean, silly?"

"I mean what I said," he replied. "Diamonds are crystallized carbon, aren't they? And what is blacking? Blacking is carbon, too—carbon in the shape of lampblack—and when we smear it on a shoe and rub the friction gives us crystallized carbon, and we have a brilliant coating of black diamonds. Look at my boot now. Don't the little black diamonds glisten on it?"

What a Man Is.

A man is not what he seems to his enemies; they will magnify his failings and hide his virtues until he will seem to be a devil incarnate. A man is not what he seems to his friends, they will laud his goodness and decorate his weaknesses and gild his follies, till he almost feels the wings begin to spread. A man is not what he would have his fellows think him; he would have all men think well of him, and so fashions his life that they may be fascinated with that which is pleasant. A man is what he is in his innerchamber when he sits alone with himself.—Rev. James N. Kaipe.

New Occupation for Women.

Quite the newest thing in the way of an occupation for women is putting cane seats in chairs. A Boston woman has chosen this unique way of earning money, and is making a decided success of it. She has secured a clientele among well-known families, and every patron she serves brings several others, so that her "chair hospital," as she calls her workshop, is seldom without a large number of patients. She averages 60 or 70 cents on each chair, and can cane five or six a day.

Sarcasm.

"Shorry I'm sho late, m'dear," began Dingle, apologetically, "but shome fresh jokers stopped me an' wouldn't lemme go—"

"Indeed?" interrupted his wife. "Why didn't you take the brick out of your hat and hit them with it?"—The Catholic Standard and Times.

PEARLS FROM SULU SEA.

Most Beautiful of This Particular Gem Is Found There.

Many and beautiful pearls are found in the Sulu sea and the possibilities of that body of water seem unlimited. The greatest pearl ever claimed from the sea in the Sulu archipelago was recently marketed in Singapore for 60,000 pesos, nearly $30,000. It is the size of a small marble, perfectly round and of perfect color. The gem was found by a poor Moro fisherman and was promptly seized by the sultan of Sulu. Then Gov. Steever interfered and took the part of the poor fisherman. Under the old Moro law, in force when the American troops first took charge of Jolo, all pearls of unusual size must be sent to the sultan, who in return made the finder a "present." The only alternative the finder of a large pearl had was to sell his treasure privately to the pearl traders.

But to do so placed the finder's life in jeopardy, for if the trader could not buy the gem at his own price he could report the matter to the sultan, who had the power to seize the finder and execute him. Under American rule, however, this law has been abolished. The finder of this $30,000 pearl, knowing this fact when his find was seized by the sultan, speedily made a trip to Jolo and reported the matter to Gov. Steever. The matter was taken to court, and the sultan forced to give up the pearl. The governor commissioned the Jolo Trading company to sell the pearl for the finder, the company receiving 20 per cent. for so doing.

So far as known this pearl is the largest ever taken from the Sulu sea, though owing to the secrecy practiced in selling the gems before American rule in Sulu there may have been greater finds. Three years ago a pearl found somewhere to the south of Jolo was carried to Batavia and there sold to a European buyer for $18,000. During the recent fair at Jolo, given by the government for the purpose of bringing the Moros together, Capt. Trana of the Jolo Trading company exhibited a magnificent black pearl valued at $7,000, a rare gem of unusual size and beauty.

WEASEL A SMALL HORROR.

Animal Is Sure Death to a Rabbit It Has Cornered.

The weasel is one small horror. Astonishingly strong, apparently fearless and as persevering as an ant, when once he has settled to the track of a rabbit, that particular bunny is indeed in grave peril, says Edwyn Sandys in Outing. The rabbit seems to know, too, and the knowledge seems to half paralyze him, for he seldom attempts the one saving chance—a straightaway, long-sustained run at top speed. And the end of the patient, if-we-do-but-wait-the-hour sort of pursuit? 'Tis indeed bloody murder. The fiend in angel garb finally toils within deadly distance. There is a snake-like stroke, most likely aimed at the big vein near the butt of the rabbit's ear. Once there, the brute sticks leech-like to the blood-sucking, while the trembling, wailing rabbit totters aimlessly about till its drained body falls limply to pay its tax to mother earth.

Why His Horse Was Shoeless.

"You had better take that critter to a blacksmith and have some shoes put on his feet," said a humane officer to an old darkey who wore a long-tailed coat and a clerical look, as he was driving an unshod, wind-broken horse along the slippery street on one of those recent sleety days.

"Oh, I dunno 'bout dat," the darky replied as if questioning the officer's right of interference.

"You'll have that horse shod or I will arrest you," the officer said, sternly.

"Now look heah, Mistah Man," was the rejoinder, "don' yo' know dat de Lawd made dat horse widout no shoes, an' if de Lawd sends de rain an' de sleet so dat hoss slip an' slide, dat's His business. Dis heah darky ain't gwine to question de way of Providence."

And he drove on.—Kansas City Star.

Oddities in Language.

Mrs. Hwfa Williams, the best dressed woman, according to the king, in London, was talking at a dinner party about the odd name Hwfa.

"Hwfa," said she, "is a very old and honorable Welsh name, like your name of Stuyvesant or Biddley. You pronounce it Hoo-fa. You know in Welsh w takes the place of u. Odd, isn't it? No odder than the English language, though. A Frenchman and an Englishman were discussing a young lady.

"'But, ees she fair?' said the Frenchman.

"'She is pretty fair,' the other answered.

"'I mean, ees she pretty?'

"'Fairly pretty.'"

Continual Scheming.

They were calling on the garret bard.

"And I suppose it is essential that you poets should have wonderful imaginations?" ventured the pretty girl.

"Well, I should say so," replied the poet, as he dashed off another spring sonnet, "If we didn't have wonderful imaginations we could never create the yarns we tell our creditors when they come around looking for money."

The Sympathizer.

"Croaker seems to feel a great sympathy for any one who is ill."

"Huh! his idea of sympathy is to get some poor invalid in a corner and tell him how miserable he's looking."