

\$2 PER ANNUM.

Original Poetry.

For the Democratic Era.

SPRING.

BY J. K. G.

The deep blue eyes of gentle Spring.

And with each beauty fills the air.

From heavenly dreams of bliss and love.

And breathing on us from above.

She comes like an angel down.

And with her wings of white and blue.

She sings to us of love and bliss.

And with her voice we hear the bliss.

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Our Olio.

Among the great number of special industries created by cotton is the manufacture of oil from the seed.

And although this product does not compare in value with shooting, shirting, yarn, thread, and the remarkable variety of other cotton goods, yet the oil has even a closer connection with our bodies than the shirts on our backs.

But not to begin with the oil, it is better to describe its manufacture before stating its destination.

Probably there ought not to be a cotton seed oil mill in the country, for the seed is valuable as manure and as food.

It is a strong fertilizer when crushed and composted, or when rotted alone; or even when plowed under while it is a material return to the soil.

The dried plant itself has little strength, but it helps to loosen stiff soils, and therefore is plowed under or allowed to rot on the surface when the field is prepared for a new planting.

The seed, when prepared as a fertilizer by crushing, rotting, or by grinding the dried oil cakes, is used in gardens, in hills of corn, in drills of other grains, or spread broadcast on the soil.

Another profitable use of the seed on a farm is to boil it with corn meal and give it to cattle.

It is excellent feed for milch cows in this form, or as meal made from the pressed oil cake.

The farmers who will sell their cotton seed at 87 per cent, delivered at the railroad, are few in Alabama, happily for the improvement of the country.

In Louisiana and Mississippi, where the soil is rich and stock is scarce, the mills get enough seed to be profitable factories.

There are about 10 in those States. Here there are but two, and they cannot get sufficient seed for continuous work.

Georgia, which is said to use now more fertilizers than any other State in the Union, has no oil mill, and its seed is counted a great addition to her thrift, if the bull can be pardoned.

The cotton seed as it comes from the gin has still some cotton lint. It looks like a white cocoon, about one-third of an inch long and half as thick.

In a mass the seeds adhere slightly together and look like a lot of dingy cotton waste.

Some of the seeds are shoveled into a hopper, in which a screw revolving in a trough, empties them into small bundles and carries them into elevating cups on a belt.

This elevator empties them into a revolving screen with meshes smaller than the seeds. Here the sand, dust, and other small particles of extraneous matter are sifted out and the seed passed into a second revolving screen.

This has meshes large enough to pass the seeds, but too small to pass the cotton husks, bolts, stones, jack-knives, and horsehoes, that often come with the seed.

From the seed passes into a gin, made expressly for the purpose, to remove the short lint left on it by the first gin.

An elevator takes it to a huller for removing, or rather breaking, the shell. The huller is a heavy cylinder, provided with knives, that pass over the seeds, together with the seed, to break the shell.

The cotton ginned in this manner, is taken to a carding machine, and is there carded for use. It is available for butts, and other materials not requiring long fiber.

It is used with success in the manufacture of cotton blankets, which, it is highly recommended in this country.

The cracked seeds pass from the huller to a revolving sieve, or separator, that allows the meats to fall into a trough, but retains the shells. These shells are passed by a chute to the engine room for fuel.

The meats go from the separator to a reciprocating sieve, which passes the pure lint through it, but retains the few shells that may be mixed with it.

The meats pass back to the separator for a second sifting. The meats pass through two heavy iron rollers of great force, and are pressed into thin flakes, making a meal of yellowish-green color. This meal is placed in the heaters, which are iron tanks about 4 feet in diameter and 15 inches deep.

These are double, the inner vessel being surrounded by steam at a pressure of 35 lbs. to the inch. The steam is stirred and heated, being dry, for five minutes. This dry heat forces the oil from its envelope. The meal is then scooped into strong sacks about 2 feet long and 10 inches wide, and placed between boards hinged together as the covers of a book.

Several of these sacks are then piled and squeezed for five or six feet, and are then passed to a second and heavier press for the same length of time, and then to a third press. The oil runs from the presses to a tank and settles during 12 or 24 hours. It is then barreled for shipment. The cake of cotton seed meal is taken out of the sack and stood on its edge in a rack to dry during three or four days. The cakes are then packed in strong sacks or are broken up and ground into meal for use as cattle food and as a fertilizer.

Some of it is sold in this country as a fertilizer at \$20 to \$22 per ton. A ton of seed produces about 20 gallons of oil, worth from 30 to 35 cents per gallon.

The trade oil thus made is sent to the cities of New York, Cincinnati, and New York. It has yellow color and a sweet taste of nut. It is used, crude, for painting, and mixed with lard oil for lubricating. It is also mixed with some lighter oil or spirit for miners' lamps, for which its non-explosive quality makes it valuable.

When refined it is difficult to tell it from the best olive oil. It is mixed with many other oils and passes for them. Here in the South it is much used for cooking in place of lard; and many a bottle bearing an assuring French or Italian label for olive oil is filled with this product of the cotton plant.—Letter from Alabama in New York Times.

What Next.

It is stated that the Pennsylvania railroad company have constructed a new mechanical contrivance with the pendulum of the clock in the great observatory at Pittsburgh which transmits the beats in all directions as far as New York, Philadelphia, Washington, &c.

This is truly a wonderful arrangement, but the marvelous performances of the telegraph have gone too far already to leave room for surprise at anything.

The invention of the "Duplex" system, by which two messages were sent at the same time in opposite directions over one wire, had scarcely ceased to be a "nine day's wonder," until the invention of the "Quadruplex" was announced, which doubled the capacity of a wire over that of the "Duplex," and now comes the "Telephone," by the use of which conversation, music, &c., is transmitted between parties hundreds of miles apart.

To remove paint splashed upon window panes, use a hot solution of soda and a soft flannel.

Taking Everybody's Advice.

In the chronicles of Esop is recorded the experience of a worthy peasant who had a donkey to sell.

With the purpose of disposing of the animal he set forth for the market town, accompanied by his little son.

As a considerate father would, he placed beside him the best and truest of his own kind, and trusted along himself by his side in the most fatherly and self-approving manner.

"Ho!" cried the first man they met, "this is a capital son, to be sure, who rides while his old father walks!"

Anxious for public approval, the father and son changed places, and then the barter of the father was censured, because he rode and allowed the son to walk.

The father, however, dismounted, and the three walked along together. The next comment was: "Well, it's quite time you sold your beast if you have not sense enough to use him while you have him."

The father then remounted and took the son up behind him. The next comment was to break the creature's back with such a load before they took him to market.

In despair, the puzzled couple finally hung the donkey by his four heels on a pole and then marched to market—literally making the beast a burthen. So they reached that climax of absurdity to which anybody may attain who strives to please everybody.

Poor advice is very cheap, and is liberally given, and especially to those who have nothing in the way of common sense, or responsibility, but who may gain largely, if it is followed, at the expense of him who follows it.

Criticism, and especially ignorant criticism, is just as cheap. To the fair and impartial expression of opinion, however, upon public men and matters, there can be no objection, on the contrary honest comment is a freedom of the press.

It is difficult to give the exact length of the snake, as he is not to be measured with such facility as a parallel of rope. He is now lying in three parallel folds in his bath; we know the length of the bath, and we calculate his length to be between eighteen and twenty feet—a tremendous fellow!

It was impossible to get a tape measure to him, but having measured his diameter at its thickest part, we conclude that he is over two feet round the body.

At present he is in, and his skin fits him very loosely. It is hoped that he will soon begin to feed. Mr. Bartlett, with his usual ingenuity, has found out how to make Mr. Anaconda feed. He covers his bath over at night, and puts therein with the snake a duck. The duck is always fed the morning, and the snake appears fatter.

Mr. Anaconda is decidedly unnatural and aquatic in his habits. Like our own British snake, it is found in marshy, damp places, and he feeds upon animals which come down to drink at night. Mr. Bartlett has ascertained that the last meal of this snake had consisted of a young peccary, the horny part of the hoofs having been discovered in the stomach at the bottom of the cage; there are also the hairs of another animal, which he has diagnosed by microscopic inspection. This tropical American snake is also called the anaconda. The provincial name is *el traya venado*, or the deer swallower. He never interferes with men, although of course he will take his own part if attacked.

It is greatly to be hoped that this magnificent snake will in time get an appetite and recover from his travel-worn appearance. His color may be described as buff with very dark markings on the upper parts. His companion in the cage is a magnificent reticulated python (*shar suwa*), caught at Penang. He has been at the gardens since August, 1876, and has not eaten anything since he arrived. He sheds his skin recently, and is now most lovely to behold.

It would be impossible to describe the tint of the new skin, but the lining of bronze, blue, gold, and black) excites by saying that they are quite as gorgeous as a peacock's plumage.

"I have had some snake skins tanned, a lady having promised to wear a dress ornamented with them. Ewe dressed in snake skins is too good a point to be overlooked."

How to Explode a Lamp.

The Scientific American gives some of the circumstances which lead to the explosion of a gas lamp.

The explosion of a gas lamp is caused by the passage of all of the gas into the flame, which accumulates in the upper portion of the lamp. This vapor is not an explosive as the term is ordinarily understood, but when it is confined so that the gases resulting from its combustion cannot escape freely into the open air the vessel containing it will be shattered.

This ignition of the gas may be brought about as follows: 1. A lamp may be extinguished by the open window or door may cause an explosion.

2. A lamp may be taken up quickly from a table or mantle and instantly exploded.

3. A lamp is taken out into the entry where there is a draft, or out of doors, and an explosion ensues.

4. A lighted lamp is taken up a flight of stairs, or is raised quickly to place it on the mantle, resulting in an explosion. In these cases the mischief is done by the air movement—either by suddenly checking the draft, or forcing air down the chimney against the flame.

5. Blowing down the chimney to extinguish the light is a frequent cause of explosion.

6. Lamp explosions have been caused by using a chimney broken off at the top, or one that has a piece broken out whereby the draft is variable and the flame unsteady.

7. Sometimes a thoughtless person puts a small piece of a large burner, thus leaving a considerable space between the edge of the burner and the mantle, which is not drifted off, which, if left, will cause the flame to be blown away, and sometimes causes an explosion, and the final result is an explosion.

The decrease of water in European rivers and sources during the present century has excited considerable interest among scientific men. The results of observations in the Rhine show a constant decrease of the river's flow, and an increase of the sea. They state that the levels of the German rivers in their early years with at least one meal a day of good oatmeal porridge. Speaking of oatmeal, an exchange remarks that a very good drink is made putting about two spoonfuls of the meal into a tumbler of water. The Western hunters and trappers consider it the best of drinks, as it is not only nourishing, insulating and satisfying.

Trials have been made in Rome of a solution of chloride of calcium as a substitute for water in laying dust in streets, and the results are said to have been highly satisfactory. The dampness communicated to the road remains for a whole week, and the road remains damp without being muddy, presenting a hard surface, on which neither the wind nor the passing of pedestrians or horses has any effect.

A Large Snake at the Zoo.

This enthusiastic naturalist and writer, Frank Buckland, describes (in *Lead and Water*) the recent arrival in London of an anaconda from South America. He says: "This immense snake is now safely housed in the snake house in the Zoological Gardens, under the parental care of Holland, who has for many years so ably managed the snakes, poisonous and non-poisonous. Our visitor arrived at Liverpool in a large box. Intelligence was given to Mr. Bartlett, who proceeded to Liverpool to inspect him, a matter of considerable difficulty. It will not do to buy an expensive snake of this kind without a warranty. Snakes are very liable to canker in the mouth. The gums get swollen and flabby, and completely conceal the teeth, so that the beast cannot feed. Again, if snakes are injured in the capture, they frequently die in consequence. It was necessary to examine the snake as to these two points. Having been shut up for several months without food, and in the dark, the anaconda was not in a good temper. When the lid was opened Mr. Bartlett caught him tight around the neck with both hands; it was not necessary to open the mouth, as the savage snake did that soon enough of himself, in true anger. A moment's inspection showed he had no disease of the gums. It was with some difficulty that Mr. Bartlett got his head back into the box, without letting out more than a foot or two of his body. The anaconda has no poisonous teeth, but has great and dangerous powers of crushing. The box with the snake weighed over 2 cwt. It was with much dodging that Anaconda was conducted by two keepers to his new quarters, where he at once retreated into a bath of warm water, from which he has only emerged once or twice. It is difficult to give the exact length of the snake, as he is not to be measured with such facility as a parallel of rope. He is now lying in three parallel folds in his bath; we know the length of the bath, and we calculate his length to be between eighteen and twenty feet—a tremendous fellow!

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Artificial Butter.

If we have to eat artificial butter it is gratifying to know that it can now be made equal in flavor, texture and odor to the best butter made from cream.

There are several manufacturers in this city and Brooklyn which turn out many tons of this product weekly, and a well-known chemist of this city recently declared that, while he had no doubt that more than half the butter consumed in New York was artificially made, he conscientiously believed that it was quite as good as butter made in the dairy, and often much better. The imitation is made of stearin, after being thoroughly washed, is reduced to oil at a low temperature; to each 100 pounds of oil some twenty pounds of sour milk are added and the two substances are churned, half an ounce of bicarbonate of soda and two or three tablespoonfuls of solution of anatto being thrown into the mixture. The product of this churning is allowed to come in contact with ice, and is again churned with more sour milk. After fifteen minutes agitation the solidified oil takes up a certain percentage of the milk, as well as its flavor and odor, and the butter is ready for the market. An analytical chemist of this city, who has prepared and published a pamphlet on the manufacture of artificial butter, furnishes a number of analyses, including those of artificial and genuine butter. Of the fats, including oleine, palmitine, stearine, butyric, &c., artificial butter contains 82 per cent, cream butter 86 per cent. The most perceptible difference in the constituents of the two products is in the matter of salt, of which artificial butter contains 5.225 per cent, and the genuine article 1.51 per cent. Of coloring matter there is a trace in the artificially prepared compound. The percentage of salt, it is said, may be augmented or reduced to suit the taste and requirements of the public. It is claimed for counterfeit butter that it does not become rancid so quickly as dairy butter, and that it can be made much more cheaply. It is a fact that more than nine-tenths of the liquors sold here are artificially made, thanks to chemistry, which is now able to reproduce the exact constituents of the various kinds of ardent spirits. Let us have before long chemists will be able to so combine the requisite amounts of carbon, hydrogen, nitrogen or phosphorus, as to give artificial quinine and the other alkaloids at prices considerably less than they sell for at present.—New York World.

The history of the remainder of Lapland is well known, and from that history we learn how useful our own species may yet be made. As is well known, the Laplanders have large herds of these animals, and use them for beasts of burden and for draught, their milk and flesh for food, their skins for clothing and for covering their sledges. The reindeer is a very hardy animal, and draws the sledge of its owner with great speed. In one of the palaces in Sweden there is a picture of one of these animals, which is preserved with great care, from the fact that the animal was the first to be tamed. It was the son of an officer, who pointed out the distance of eight hundred miles in forty-eight hours.

A COLOSSAL ORGAN.—We recently explained Mr. Montan's new pyrophone, which consists of tubes of copper in which inaudible pieces of charcoal inclosed in wire gauze are introduced, to create an upward current of air, and so to cause the tubes to sound. It is now proposed to construct an instrument of this principle on an enormous scale for the French Exposition of 1878, the tubes being large enough to receive small charcoal furnaces. The inventor points out that his device may be used as a fire signal, as it produces a loud noise and requires scarcely any machinery to operate it.—Scientific American.

A LAUNDRY SECRET.—The following recipe for doing up shirts will be found of use to many housewives.—Take two ounces of fine white gum arabic powder; put it into a pitcher and pour on it a pint or so of water; and then, having covered it up, let it stand all night. In the morning pour it carefully from the dregs into a clean bottle, and cork it and keep it for use. A tablespoonful of gum water stirred into a pint of starch, made in the usual manner, will give it the appearance of either white or printed, a look of newness, when nothing else can restore them, after they have been washed.

Another item of American manufacture is causing considerable excitement abroad. The article in question is none other than soap, which is sent abroad in large quantities, and which obtains preference to all others. It is said that American toilet soaps are replacing the French toilet soaps in their own markets. Partly on this account, as well as from other causes, there was thirty-five thousand persons employed there in that industry, and some of them are thrown out of work by the enforced idleness of the factories.

The Stockton, (Cal.) Independent says: "Three monstrous sea-horses, for some time past