Agriculture.

Best Age to Plant Fruit Trees.

An agricultural editor says:—From a pretty long experience in planting fruit-trees we have come to the conclusion—and this is not the first time we have printed it in these columns—that two-year old fruit-trees are more certain to grow, to assume a good form, to become vigorous and longer-lived than trees twice as old. Indeed, we have seldom succeeded well with trees more than two years old.

Some years ago we sent to a nursery for some two dozens of pear and cherry trees, and in the hurry of writing the order, not being able to go after the trees personally, nothing was said about the *age* of the trees. We only said, "Send good trees, well-branched." We never saw a more perfect lot of trees, but they were at least four years old, and some of them nine feet high. They were planted carefully and cut back severely, but only moderately at first, to save them. The spring could not have been more favorable for transplanting, and when the dry weather set in they were frequently watered, which doubtless saved the majority. Five of the lot died. We do not remember losing a small tree.

We repeat our conviction, that one and two year old trees are better in the end than those older; and though we may have to wait sometimes (not always) longer to get fruit, the trees are far healthier and more productive and give more satisfaction.

We may add to this that several of the pear-trees were pruned within from six to ten inches of the main stock, resembling when done a half-closed upturned hand, and it not only saved them, but they are at this time in perfect health, growing finely. All fruit-trees, to afford the best satisfaction, should be of the age here indicated, and if properly planted and cared-for, will be more hardy, vigorous and longer-lived than trees of old stock. The desire some people have of getting fruit as quickly as possible is not always realized by planting older trees; and from the very fact that they may bear earlier it will be at the expense of the health and growth of the tree.

Whole Fodder for Cows.

A series of experiments have been instituted and carried out by a Mecklenburg agricultural society, with a view of determining whether it is better to give cows their fodder in its natural condition, as to length, or in short pieces, as when it has passed through a hay cutter. The general results arrived at are thus summarized: First—Whole fodder is to be preferred because of the saving it effects without detriment to the yield of milk, or weight or general health of the animal. Second—This saving is due to the whole fodder being better chewed and re-chewed and mixed with saliva, whereby it is turned to better account. A distinguished veterinary surgeon has shown that when cut up fine, a considerable proportion of the fodder passes at once into the second stomach and so is not re-chewed, and is, consequently, only partially utilized. Third—The decrease in the amount eaten at first, observed when whole fodder is used, is explained by the greater demands that this makes upon the masticatory apparatus. This is especially noticeable in the older cows. Learning, or the acquiring of new habits of any sort, becomes more difficult as years advance, and learning to chew is no exception to the rule. Hence it is advisable to begin feeding whole fodder while the cows are young. Fourth—The greater slimness of the belly when whole fodder is given is explained by the more complete disintegration such food undergoes: none of the stems pass intact, and consequently more or less hollow, into the stomach to distend it and put it on the stretch. Fifth—The increased desire to drink is due to the increased employment of the saliva. Sixth—The general improvement in health and condition under this form of feeding is due to its being more agreeable to nature.

Diarrhœa in Lambs.

The *Kansas Farmer* says:—Diarrhœa in lambs is a very common disease, and great numbers perish on account of it. The causes are mainly colds, but sometimes the food induces the disease. Dysentery is apt to take place in a few days after birth, if the milk of the ewe is too strong and copious. When attacked, the lamb becomes languid, stands with bent back, or lies down frequently. The excrement is thin, whitish, or greenish, and afterwards watery, and finally bloody. If no attention is given to the case the lamb dies, usually in from three to five days. The cure is not easy, and the majority of those attacked die of the disease; hence the attempt to prevent it as much as possible is of special importance. All injurious influences must be avoided, the sheep kept in warm, dry places, and given dry food, and drinks mixed with flour. When the disease makes its appearance in the food, it is a wise plan to change the food. The following remedies are recommended: Opium, ten to twenty grains; rhubarb, one-eighth ounce, mixed with flour and water, given in one dose, two or three times a day.

Carding Cattle.

Professor J. W. Sanborn of the State College Farm, Hanover, N. H., reports a series of experiments showing the unexpected result that when steers were carded daily in winter they actually gained less rapidly in weight than others fed precisely in the same manner and not carded; even when the lots were reversed and the steers first carded were left uncarded, and the scratching was applied to the lot first uncarded, the result was in favor of letting the animals alone. Only in April, when they were shedding their coats, was there something to show in return for all the labor, but not enough to pay for the trouble. In one of the experiments the gain in favor of not carding was 107 pounds in two months on four steers. We presume, although it is not so stated, that the carding was not done while the animals were eating their rations. We presume this because any one acquainted with cattle nature could not but know that an experiment performed in such a way would yield results of little value.—*Tribune:*

Agricultural Notes.

The *Maine Farmer* tells of a premium colt that was given six eggs per day as part of his food.

Bloated cattle can be quickly relieved by the insertion in the mouth of a straw rope of good size, tying it over the head.

Sheep will eat what no other stock eat, and thus save the labor required by the thrifty farmer to keep down noxious weeds.

A correspondent of the New York *Tribune* says a tea made of cayenne pepper, used twice a day, will kill cabbage worms.

In every State there should be a law prohibiting the use of any but thoroughbred or improved males, whether of horses, cattle, sheep or swine.

Charcoal should be given to pigs and poultry. Coal dust, either anthracite or bituminous, is also good for pigs. A pound a day to a hog will be of advantage; and if you have never fed it, try it and you will be surprised to see the avidity with which hogs will eat "stone coal." The coal yards will gladly give it to you to get rid of it.

The *New England Farmer* says: "It is estimated that the loss to agriculture from the growth of weeds instead of the useful grasses, in meadow and pasture lands, is not less than one hundred million dollars per year in the United States. Nothing will sooner or more cheaply bring about the desired change in this direction than a more general employment of sheep as scavengers on every farm where their introduction is indicated.

Mr. M. B. Batcham, of Painesville, Ohio, in an address before the American Dairymen's Association, advised the sowing of the following six kinds of Grass Seeds for pasture lands as known to be adapted to clayey soils: Timothy, Blue Grass, Red Top, Orchard Grass, Meadow Fiscue and English Rye Grass, adding White Clover if desired. If either kind is omitted it should be the Rye Grass, as it sometimes winter-kils on flat, clayey soils.

Professor E. W. Stewart, of Lake View, New York, says: "The day is certainly not far distant when all enterprising farmers will soil their stock to a great extent. The best way to soil is to begin raising grain. Make a calculation as to how much corn and other grain crops you will require, raise good crops and you will soon see the folly of using three to five acres to pasture a cow when she can be soiled on a half acre."

Domestic.

YOUNG WIVES.—An English lady who can cook, in a lively letter to the *Standard*, enlarges on one of the real grievances of the present day, to wit, the number of utterly useless and idle young wives, who, being incapable themselves, spoil their servants, and then wonder that the husband leaves the ill-cooked meal, perhaps ill-served also, to dine at his club. They say contemptuously they were not brought up to that kind of thing, and consider it beneath them. This lady replies that she was not brought up to it either, but she denies that it is beneath any gentlewoman to try and contribute to the comfort of those around her. If she need not absolutely work with her own hands, the mistress of a house should certainly have a sufficient knowledge to direct her subordinates, or they will soon discover her ignorance and become insubordinates. Nor need the absolute performance of these duties interfere with other pursuits. This lady confesses that, after pastry and cake-making in the morning, her hand is sometimes too tremulous for her favorite oil-painting or to help her husband in the preparation of objects for his microscope, but it is easy enough to find some other occupation when this is the case; and she has not lost her love for art, nor her appreciation of science, because she is happy enough to be a lady who can cook.

EXPULSION OF FLIES.—We copy the following from the London *Garden*. Have any of our readers witnessed similar results? The Rev. George Mears Drought, writing from Ireland to the *Times*, says: For three years I have lived in a town, and during that time my sitting-room has been free from flies, three or four only walking about my breakfast table, while all my neighbors' rooms were crowded. I often congratulated myself on my escape, but never knew the reason of it until two days ago. I then had occasion to move my goods to another house while I remained on for two days longer. Among other things moved were two boxes of geraniums and calceolaries, which stood in my window, the windows being always open to full extent, top and bottom. The boxes were not gone half an hour before my room was as full of flies as those around me. This, to me, is a new discovery, and perhaps it may serve to encourage others in that which is always a source of pleasure, and which now proves also to be a source of comfort, viz., window gardening.

Household Recipes.

RICH SMALL CAKES.—Beat together three teaspoonfuls of butter, three of sugar, three eggs, three cups of flour, one-half of a grated nutmeg. Roll out thin, and cut in small cakes.

EGG PUFFS.—Six eggs, one pint of milk, three spoonfuls of flour, four ounces of melted butter and a spoonful of yeast; mix, and half fill cups. Bake fifteen minutes. Wine sauce.

FAMILY CAKE.—Six cupfuls of flour, four of molasses, one and-a-half cupfuls of butter, two and one-third cupfuls of milk, two cupfuls of currants, four eggs, two nutmegs, one large spoonful saleratus, and a little cinnamon.

A PLAIN CAKE FOR CHILDREN.—One and a half pounds of flour, seven ounces brown sugar, four ounces dripping, four teaspoonsful of baking powder, half a pound of currants, one ounce of caraway-seeds, and half a pint of warm milk.

BOILED RICE PUDDING.—Take two cupfuls of rice and wash it in cold water; put it into a cloth, with a teaspoonful of salt and a cup of raisins; tie the cloth loosely, so as to give room for the rice to swell one-half. Boil two hours. Eat with sweet liquid sauce.

AMMONIA CAKE.—One pound of flour, one pound of currants, one quarter of a pound of butter, six ounces of sugar, half a pint of cream, a piece of ammonia, rather larger than a filbert, and three eggs, leaving out one white. The cake should not be cut for a fortnight, and it will keep fresh for any length of time.

ALL THE YEAR ROUND PUDDING.—Line a pie-dish with paste, spread on this three ounces of any kind of jam (raspberry is the best), then beat well in a basin the following: Three ounces of bread crumbs, the same of sugar and butter, the rind and juice of half a large lemon; add this to the pastry and jam, and bake half an hour.

SUET DUMPLINGS, WITH CURRANTS.—Scald a pint of new milk, and let it grow cold; then stir into that half a pound of chopped suet, two eggs, four ounces cleaned currants, a little nutmeg, salt, two teaspoonfuls powdered ginger, and flour sufficient to make the whole into a light batter-paste. Form it into dumplings; flour them well outside; throw them into your saucepan, being careful that the water is boiling, and that they do not stick to the bottom. Boil one hour.

GINGERBREAD LOAF.—Two and-a-half pounds of flour, half a pound of butter, one ounce of ginger, four eggs, half a pound of moist sugar, one dessert-spoonful of carbonate of soda, dissolved in a cup of water. Melt the butter on the molasses, then add the sugar, soda and eggs. Mix all together with the flour, and bake in a moderate oven two hours. Some think it a better plan to mix the soda first with the flour, and then when the molasses, etc., are added, a slight evolution of gas takes place, which makes the gingerbread light.

MACARONI, FARMER'S STYLE.—Boil half a pound of macaroni, and while you are draining it from the cold water, stir together over the fire one ounce each of butter and flour, and as soon as they bubble gradually pour into the sauce they make a pint of boiling water, beating it with a fork or egg-whip until it is smooth; season it with a level teaspoonful of salt and a level salt-spoonful of pepper, and put the macaroni in it to heat; then cut an onion in small shreds, and brown it over the fire in a very little fat; when both are done dish the macaroni, and pour the onion out of the frying-pan upon it. It is excellent, and ten cents will cover the cost of all of it.

Scientific.

Antiseptic Properties of Borax.—According to the *Lancet*, at a recent meeting of the Academy of Sciences of Lombardy, G. Polli reported the results of numerous experiments in which beer, meat, eggs, blood, and urine were treated with boracic acid and borax for thirty days during the summer time, and were found still to retain their freshness, and to present no traces of fermentation having taken place in them. In experiments, on the other hand, without the addition of the salt, but in some cases with the addition of sulphate of soda, the fluids passed into a state of complete decomposition in the course of fifteen days. The energetic disinfecting power possessed by boracic acid and borax, and the facility with which these substances can be absorbed into the economy, led Polli to recommend their use in disease in regard to the infectious nature of which no doubt exists, or in which septic conditions readily arise. He adduces several examples in which the febrile conditions of tuberculosis underwent diminution. No benefit was obtained by Professor Visconti from experiments made with these remedies in malaria, though other observers have arrived at a different conclusion. In chronic cystitis, the muco-purulent discharge quickly diminished, and even altogether disappeared in the course of a few days, and rapid improvement occurred in cases of bad suppurating wounds when they were applied externally. The dose recommended by Polli is 75 grains of boracic acid and 150 grains of borax per diem.

Phosphor Bronze.—The superior durability of phosphor bronze over other material for bearings, slide valves, and various other purposes where hardness and toughness are requisite is strikingly illustrated in an exhibit at the Paris Exposition, wherein are shown many bearings, etc., of the bronze side by side with those of other metals with which they had been used in competitive tests. Bronze bearings used for finishing rolls in a rail mill show very slight wear for eight months of constant work, while gun metal bearings on same rolls wore out in three weeks.

Bronze bearings were used on one side and gun metal on the other of crushing rolls, making 120 revolutions a minute, with a pressure upon them of 2½ tons; the first showed scarcely a sign of wear, while the latter were completely worn out.

But the most remarkable instance is that of locomotive slide valves, which, though in use for twenty-two months, have required no attention in the repair shop and have worn but 1-32 of an inch, while the life of ordinary gun metal slides averages but eight months; and the cylinder faces on which the valves slide were not worn in the least. At this rate of wear the life of the bronze valves would be from seven to eight years.

It is evident that in the phosphor bronze we have an agent for very materially reducing the "repair account" on our railroads and in our manufactories—a most welcome matter in these times.

A New American Buzzard.—Mr. George B. Sennet, of Erie, Penna., and Dr. James C. Merrill, U. S. A., have just discovered in Texas specimens of a new American buzzard, which the Smithsonian authorities have identified as *Buteo albocaudatus*, a large and handsome hawk, very different from any hitherto known to occur in the United States. Both the above gentlemen are zealous and successful ornithologists, and Dr. Elliott Coues, who sends particulars of their recent discoveries to *The Country*, adds that the importance of the contributions made by them may be inferred from the fact that their respective collections together represent an addition of about twenty species and several genera to the list of United States birds.

Iron and Steel Tools.—It is difficult, says a Belgian journal, to distinguish between iron and steel tools. They have the same polish and workmanship; use will commonly alone show the difference. To make the distinction quickly, place the tool upon a stone, and drop upon it some dilute nitric acid (four parts of water to one of acid). If the tool remains clean it is of iron, if of steel it will show a black spot where touched by the acid. These spots can be easily rubbed off.

The Polymicroscope is Germany's latest contribution to microscopical science. It is a contrivance which enables the observer, without change of slide or re-adjustment of object glass, to study sixty preparations under his microscope, in immediate succession. The principle of the revolving stereoscope has been applied in the construction of this novel apparatus, by Herr von Lenhossek.

The Lord Rosse telescope is, as compared with the human eye, as 130,000 to 1; it has a penetrating power of 500, and can render visible stars whose light would require 60,000 years to reach our earth.

Humorous.

—Old joke but timely: "Don't eat cucumbers. They W up.

—Love is like a cigar—the longer it burns the less it becomes.

—The most remarkable exhibition of cur-age on record is that of an Oriskany dog thirty-eight years old.—*Utica Observer.*

—It has been discovered that the man who took a look at the "lay of the land," inspected a basket of eggs.—*Fulton Times.*

—She was plump and beautiful, and he was wildly fond of her; she hated him, but womanlike, she strove to catch him. He was a flea.

—Baltimore belles take Newfoundland dogs in bathing with them at Atlantic City. Meantime their usual puppies are mere tarriers on the beach.

—The difference between ladies and ducks—if there is any difference—is that ladies are often dressed to kill, while ducks are killed to dress.—*Graphic.*

—"Fine nainsook, embroidered, makes lovely slips for children," says a fashion writer. Orange peel on a sidewalk continues to be good enough for men.—*Picayune.*

—Go west, young man. It is a charming place. Those who don't freeze to death in winter, get sunstruck in summer. The others get killed by a tornado.—*Norristown Herald.*

—A subscriber asks us, What is good for warts on horses? We don't know; we never owned but one pair of horses—a wood horse and a clothes-horse; and they were never troubled with warts.

—"When the swallow homeward flies" is usually when a good marksman lodges a blacking brush on the starboard quarter of the high tenor of the *Felis* troupe in the back yard.—*Philadelphia Bulletin.*

—A new well in North Carolina has been dug over twice, and has buried a man each time. As Byron said:

"Fear the well, and if forever,
Still forever fear the well."

—*Graphic.*

—"When," writes a High School graduate, "do you begin to call a girl an old maid?" Oh, almost any time you get mad at her. Generally after you have been undying and eternal friends about three months.—*Hawkeye.*

—One of the most prominent physicians of Hartford, Conn., the other evening ordered his hired man to "harness up Bucephalus," his favorite horse. Soon after the doctor and his friend were greatly amused to hear the announcement at the office door that "Erysipelas is hitched outside."—*Boston Daily Advertiser.* Not such a bad mistake after all. Erysipelas is a certain thing to 'itch outside.—*Philadelphia Bulletin.*

Oh, for some cool umbrageous spot,
Where it isn't so dog-goned awfully hot;
Where the—where the—where the—where the—
Where the—if I could—where the—where—

Oh, for some cool umbrageous spot
Where it isn't so everlasting hot;
Some place where the—the—where the—
Where the—some place where the—some—

Oh, for some cool umbrageous spot
Where it isn't so dreadfully, horribly hot;
Where the breeze—where the whispering breezes—
Breezes—where the whispering breezes—where the—
Oh, for some—

But somehow or other this doesn't seem to be our day for poetry.—*Hawkeye.*

—The next war will be for three-cent beer.—*Phila. N. American.* Oh, come, now; think twice before you plunge the country into a civil and bloody war for such a trifling matter. If you can't afford to pay five cents for your beer, go to some saloon where you are not known and tell them to put it on the slate. We'd rather pay for all the beer you drink than to have another cruel war. We don't suppose that it would amount to more than six or seven dollars a day, anyhow.—*Norristown Herald.*

—When staying at the Palmer House, in Chicago, last Spring, we took a bath about an hour before we left. While watching the beautiful sunset at the Cliff House yesterday, and musing over the half-tender, half-sad recollections of the pregnant past, it came upon us like a flash that we had left the right spigot running on the occasion referred to. If this should meet the eye of the proprietor, he will see the importance of giving immediate attention to the matter.—*San Francisco News Letter.*

—Norwalk has really the best of us in being down by the sea. The wooden hills, the quiet valleys, the murmuring brooks are all very, very beautiful, but there is a grandeur and majesty in the ocean peculiar alone to it, and that fills the mind with awe. Then there is the tide, the wonderful tide, ever going and ever coming, in its ceaseless march. How inspiring! How mysterious! Grand and majestic it sweeps out to the sea. Grand and majestic it sweeps in to the land. There were eleven dead dogs on its crest last week. Going and coming, coming and going. In July, too. Beautiful! Grand! Mysterious!—*Danbury News.*

—As a "summer resort," Norristown stands at the head of the list. When the thermometer marked 100 degrees in Philadelphia, and 85 degrees at Atlantic City and Cape May, our merchants were selling many blankets and overcoats, and our druggists disposing of ointment for frosted feet; two drowning cases occurred by boys breaking through thin ice, and the plumbers did a good business repairing burst water-pipes; several sets of false teeth were found on the sidewalk—owners having chattered them out of their mouths, and all travel on the shady side of the street was suspended. (This is a lie; but we notice it is the fashion for all summer resorts to lie about the state of the thermometer.)—*Norristown Herald.*

WORTH READING TWICE.

Says a young husband, whose business speculations were unsuccessful:—"My wife's silver tea-set, the bridal gift of a rich uncle, doomed me to financial ruin. It involved a hundred unexpected expenses, which, trying to meet, made me the bankrupt that I am." His is the experience of many others less wise, who do not know what is the goblin in the house working destruction. A sagacious father, of great wealth, exceedingly mortified his daughter by ordering to be printed on her wedding cards:—"No presents except those adapted to an income of $1,000." Said he: "You must not expect to begin life in the style I am able by many years of labor to indulge; and I know of nothing that will tempt you more than the well intended but pernicious gifts of rich friends."

DIAMONDS.

HOW DIAMONDS WERE FOUND IN SOUTH AFRICA—THE COST OF DIGGING—A SOUTH AFRICAN DIAMOND MINE.

Dr. Morton contributes an interesting article on diamonds to the August *Scribner*, from which we make the following extracts:

The modern discovery of diamonds came about in this wise. In 1867 a certain John O'Reilly, trader and hunter, on his way from the interior, reached the junction of the rivers and stopped for the night at the farm of a Dutch farmer named Van Niekerk. The children were playing on the earth floor with some pretty pebbles they had found long before in the river. One of these pebbles attracted O'Reilly's attention. He said, picking it up, "that might be a diamond." Niekerk laughed and said he could have it: it was no diamond; if it was, there were plenty around there. However, O'Reilly was not to be laughed out of his idea, and said that if Niekerk didn't object he would take it down with him to Cape Town and see what it was, and if it proved to be of value he would give him half the proceeds. On the way down, a long journey, he stopped at Colesburg, at the hotel, and showed the pebble, scratching with it a pane of glass. His friends laughingly scratched glass with a gun-flint and threw the pebble out of the window, telling O'Reilly not to make a fool of himself. However, O'Reilly persevered, got it to Dr. Atherstone, near the coast, who announced that it was in truth a diamond of 22½ karats. It was sold for $3,000. I am glad to say that O'Reilly divided fairly with Niekerk. The latter remembered that he had seen an immense stone in the hands of a Kaffir witch doctor, who used it in his incantations. He found the fetish-man, gave him 500 sheep, horses, and nearly all he possessed, and sold it the same day to an experienced diamond-buyer for $56,000. This was the famous "Star of South Africa." It weighed 83½ karats in the rough, and was found to be a gem quite the rival of any Indian stone in purity and brilliance. After it had been cut it was bought by the Earl of Dudley, and it is now known as the "Dudley" diamond. The natives crawled over the ground and found many more, and the excitement grew and became intense. By 1869 parties in ox-wagons had worked their way over the weary plains to the Vaal river. From all parts of the colony and from foreign lands people swarmed, and soon, like the creation of a dream, a tented city of twelve thousand and more grew at Pniel and Klipdrift, the opposite banks of the stream, where diamonds were found plentifully and of excellent quality by sorting over the bowlder drift. Soon hundreds of cradles like those used by the Australian gold-diggers, were rocking on the edge of the stream, supplied with the precious gravel by a large force of diggers, sievers, and carriers. People were thunderstruck at their success. Poor men with a turn of the hand became rich. Hotels, bakeries, breweries, drinking saloons and shops were erected and reaped rewards quite as large as did the diggers. It was a marvelous scene at night when the opposite camps were lit up with the warm glow of lights shining through the tent cloth buildings, and the brilliant camp-fires of their twelve thousand inhabitants glinted across the water, from bank to bank. Far into the night were kept up the shouts and laughter, and singing and music, and the crossing and re-crossing of the boats. The excited crowds shifted their quarters up and down the river, making new discoveries during 1870 and 1871, over an area of from forty to fifty miles of the stream, and forming many camps such as Gong Gong, Union Kopje, Colesberg Kopje, Delport's Hope, Blue Jacket, Forlorn Hope, Waldeks' Plant, Larkin's Flat and Niekerk's Hope.

COST OF DIAMOND DIGGING.

Diamond digging is expensive. We will take, for example, the average digger, who owns a quarter of a claim and works his own ground. He can take his choice, according to locality, of paying from $1,000 to $10,000 for his quarter claim—i. e., 7½ feet by 31 feet. It pays best to buy high-priced ground. His outfit of digging tools, washing machine, etc., will cost say $1,000. His gang of twenty Kaffirs will cost him five dollars each per week, or $100. One overseer besides himself, twenty-five dollars per week. Meat and tobacco for Kaffirs, five dollars per week extra. Then expenses of carting and taxes will make his total outlay at least $200 per week, or over $10,000 a year, exclusive of his own expenses of living. If one cannot spend $800 per month, I believe it is of no use to go to Kimberley to dig for diamonds. To offset this expense is, of course, good luck in "finding," and from the very beginning of operations the digger often not only clears expenses, but makes a handsome profit. There is no doubt that diamond digging pays two-thirds of those who engage in it well. The fortunes made, as a rule, are small and numerous. Rarely has any one cleared $50,000 from any one claim. Success seems to be very evenly distributed, and chiefly obtainable by those who can begin with say from $3,000 to $5,000.

The amount of money paid for Kaffir labor alone is enormous. For instance, there are a thousand wheels; allowing five Kaffirs to each, we have 5,000 laborers daily at the mine. These, at $5 each per week, are paid $25,000, or $100,000 per month, or $1,200,000 per year, and this for 5,000 Kaffirs only. The assessment of the Kimberley mine for the year 1877, simply for the purpose of distribution of rates or taxes, was $5,151,500, or about $7,000,000, if we add a third to bring the first amount up to selling prices. It apparently never occurs to the digger to inquire into the unstable nature of the whole Kimberley fabric. Immense sums of money are invested in and around the mine, and owners of town lots, of houses, of public buildings, and of claims, have settled into the calmest feeling of security. But no fear disturbs the digger of Kimberley. His belief in the immortality of the mine is supreme. But there are influences at work which are crowding the small capitalist from the fields. The increasing depth, crumbling reef, inflowing water are fast multiplying the expenses of working. The great bugbear of the digger is the word "company," but even now small proprietorships are becoming merged in large aggregations of claims, and the next phase of mining operations must undoubtedly be that of several large and competing companies, or perhaps a single one controlling the whole mine. Then the individual romance of diamond-hunting will be over. But there is no danger that the diamond will ever become common. Nature has placed it in lands difficult of access, and it is likely to remain a royal gem, surrounded with the seclusion of royalty.

From whatever direction one comes from the surrounding plain, the most prominent sight is the lofty range of sand mounds, rising up from out the centre of the town, and overtopping everything. These are composed of earth from the original thirteen surface acres of the Kimberley mine, and thrown up around the edge of the gradually deepening pit, just as the ant on a smaller scale piles up a circular ridge around its hole. By diamond "mine" in Africa is meant a pipe of several acres superficial area and unknown depth, running straight down through stratified layers of shale. Each pipe, and there are only four, is filled in to the level of the general surface of the plain with sand tufa and a diamond-bearing breccia or soft rock. The Kimberley pipe or mine has now been excavated to a depth of about two hundred and fifty feet. Most of the streets of the town converge to it. We walk to the edge of rock which surrounds it, called the "reef," and before and beneath us extends an abyss—a huge oval-shaped caldron—open full to the skies. Over its edge lies a sheer descent of two hundred and fifty feet; across it, from side to side, a stretch of a thousand feet, or a fifth of a mile. Coming even as one does from the life and stir of the town, the first look into the mine is a fascinating and bewildering one.

Little by little the facts unfold and steal upon the attention. One talks to his neighbor as to a deaf man, for a steady hum or roar fills the air, chiefly made up of human voices and the whir of buckets ascending and descending on their ropes. Ten thousand men are working below and around us, in the pit and around its edge. All is in plain sight, for there is no burrowing under ground. Far below, little black pigmy men—so they seem in the distance—are moving about, but not singly or at random, for closer observation shows that they are working in groups, each group upon a certain well-defined square patch of solid earth, at which it is picking and delving, or walking to and fro over it, carrying little buckets of loosened soil. In their midst sits or stands a white overseer or the master himself.

Spreading over the whole excavation or pit, caldron, pot or basin, whichever conveys the clearest idea, like a spider's web on a dewy morning, run innumerable little white threads, so they seem as they glisten in the sun. Follow one such thread to our feet, and it will be found to be a shining wire rope, worn white with constant use. And here on the edge or brim, called, as we know, the "reef," we find a scene of life and labor even more animated than below.

All around, but chiefly on two opposite sides, is erected a strong framework of timber called the "staging," estimated to have cost $250,000. It is built in three tiers, like a three-story house, and each tier is floored to afford standing-room for laborers. Firmly set all along each tier of this staging are hundreds of wooden wheels, about four feet in diameter, with a crank on each side, to be turned by four Kaffirs. The iron ropes run from every part of the circumference, but differ greatly in length—some extending vertically down the reef, some far out into the centre of the mine, and others to varying intermediate distances, but each to its own claim. Such a rope is stretched from the bearings of each wheel on the staging to its corresponding claim below, where it is made fast to a post sunk firmly in the ground. Thus, a wheel, a wire rope and a "claim," be it only a sixteenth, are inseparable, and equal in number. On these wire ropes the "blue stuff" is hauled in buckets by aid of the windlass, up out of the mine.

A CALIFORNIA MINING STORY.

The San Francisco *Bulletin* says: "Not many miles from Shasta City is the gulch of which the following mining story is told. "It is a pretty deep ravine, with rocks showing all the way up the sides. Gold in paying quantities had been found along the stream, but it seemed to disappear a few feet from the channel. One day, while a gang of busy men were toilling in the stream, a stranger, evidently green at mining, came along and leaned on ragged elbows to watch, with protruding eyes, the results of their toil. The miner nearest him took out a $5 nugget, and anxiety overcame the greenhorn. 'S-a-a-y,' he asked, 'where can I go to diggin' to find it like that?' The hardy miner stopped his work, and giving the wink to all the boys, so that the joke should not be lost, pointed up on the barren rocks where no gold had ever been found: 'Ye see thet rough lookin' place?' 'Yes, yes, said the new hand. 'Well, thar it is rich. Jes yes take out a claim and go ter work, and when we finish here we'll come up, too.' Then the new hand thanked the honest miner and the boys all grinned appreciation of the joke. That afternoon there was a solitary figure picking away on the slope, and every time the miners looked up they roared with laughter. But about the next day the greenhorn struck a pocket, and took out something like $30,000 in a few minutes. Then, innocent to the last, he treated all around, and thanked the miner who sent him up there and took his money and went down into the valley and bought him a farm. Then the unhappy miners arose, leaving their old claim, and dotted that hill-side for days. But there were no more pockets anywhere. The whole thing reads like the traditional fairy story. But then I have seen the gulch. Much more unbelievable things have happened in the mines."

NONE PERFECT.

One day you will be pleased with a friend and the next day be disappointed in him. It will be so to the end, and you must make your mind up to it and not quarrel, unless for very grave causes. Your friend, you have found out, is not perfect. Nor are you, and you cannot expect to get much more than you give. You must look for weakness, foolishness, and vanity in human nature; it is unhappy if you are too sharp in seeing them.

MORAL COURAGE.

He has the true courage of his opinion who, in these days, dares quietly but manfully, to express his own sentiments; to differ even from his own partisans; to respect respectable men wherever he recognizes them; to frown upon this prevalent habit of personal abuse of rulers; to urge his own opinions with honest pertinacity, but to accord to other men the possibility of differing from him in judgment without necessarily being dishonest.

REGISTER'S LINIMENT is unequalled for man or animals.—See advertisement in another column.

HOW CAN THEY HELP IT?

There is a sort of "goodness" which is brought out by the sunshine of prosperity. People who are satisfied with their surroundings and themselves, are apt to be good-humored and gracious to their companions. Good fortune makes them cheerful and contented, so they advocate cheerfulness and contentment as chief duties. The pleasures and luxuries of life await them on every side, and they wonder vaguely what makes some people so unthankful or so gloomy! They enjoy their own charities and generosities, forgetting that neither have cost them an effort. They are bright and happy and amiable often from sheer force of circumstances.

Brain and Nerve Food.

Rev. W. L. Bostwick, D. D., 166 Clark Street, Hartford, writes: "I feel that your VITALIZED PHOSPHATES are curing my nervous prostration. In particular, I notice that they tend to keep the liver active by promoting a better digestion. My head does not ache and feel so irritable as it did. My nervous system is stronger and in better regulation. My brain is much more active, mentally and physically. I can work better."

To F. Crosby, No. 666 Sixth Avenue, New York.

VITALIZED PHOSPHATES for sale by all Druggists.

Advertisements.

In writing to parties Advertising in these Columns please mention this paper.

POPHAM'S ASTHMA SPECIFIC Best in the World. Trial Pack'ge free. T. POPHAM & Co. 19 S. 9th st. Philadel'a.

REGISTER'S LINIMENT FOR MAN OR BEAST IT NEVER FAILS.
It cures Rheumatism, Neuralgia, Headache, Cuts, Burns, Pains, Sores, Swellings, Injuries, Lameness, etc. Try it. Sold by Druggists and General Merchants everywhere. 25 and 50 cents a bottle. Laboratory No. 324 South 5th Street, Philadelphia.
Agents wanted. Write for Circular and Terms.

THERMALINE
A Safe and Reliable Substitute for Quinine
The only 25 cent
ACUE REMEDY
IN THE WORLD
CURES
CHILLS & FEVER
and all MALARIAL DISEASES.
Sold by all Druggists. Mailed FREE on receipt of price. Write to DUNDAS DICK & CO., 35 Wooster street, New York, for their ten cent book, mailed to the readers of this paper FREE on application.

THE PATENT
Self-Acting Cow Milker
MANUFACTURING CO.

Patented May 13th, 1878.

Every one who owns a cow should have one of our wonderful MILKERS. A child can use them. Sent free to any part of the United States on receipt of $2. Send for our illustrated Pamphlet on the Cow, containing sectional views of a cow's teats and bag dissected and scientifically explained, by Drs. White and Wilson of this city. Sent free to any address.

GEO. E KING, PRESIDENT.
Office, 575 Broadway, New York.

TO CANDIDATES:
ALL hand clipping dispensed with by using ARNOLD'S Patent Ready-cut Election Stickers. ASK your printer for a sample, or address JAS. ARNOLD, Manufacturer, Phila., Pa.

A SAMPLE BOX of Dr. Beecher's Pearl Pellets for Beautifying the Teeth will be mailed to any address, upon receipt of 25c. (in postage stamps.) Active Agents Wanted, to whom we will pay good salaries. Particulars free. Address,
DR. BEECHER, Dentist,
46 Third Avenue,
NEW YORK.

M. HAMBURGER,
Importer, Publisher and Manufacturer of
SCRAP BOOK PICTURES,
BORDERS, CARDS, IMPORTED AND DOMESTIC SHEETS, AND PICTURES IN MATS.
No. 306 Broadway, New York.
P. O. Box 451. Send for Catalogue.

MME. CRISWOLD'S PATENT
Skirt-Supporting Corsets
Sold exclusively by lady agents. A permanent business, and money in it. Address,
21 E. 16th Street, N. Y.
Branch Office, 44 Winter St., Boston.

SHOEMAKER'S AROMATIC FLUID EXTRACT OF GRINDELIA ROBUSTA.
For the CURE OF Asthma and Hay Fever.
Manufactured by R. SHOEMAKER & CO.
Fourth and Race Sts. PHILAD'A.

COMPOUND OXYGEN The new cure for Consumption, Asthma, Catarrh, Bronchitis, Headache, Dyspepsia, and all Chronic Diseases, by a revitalizing process, has been made, which are attracting the widest attention.
REMARKABLE CURES
STRONGLY ENDORSED by the Hon. JUDGE KELLEY, T. B. ARTHUR, Hon. MONTGOMERY BLAIR, and others who have used this Treatment.
SENT FREE! Brochure [20 pp.] with many testimonials to most remarkable cures. Drs. STARKEY & PALEN, 1109 Girard St., Phila.

FRED'K V. RUSHTON'S
New Remedy for Neuralgia,
HEADACHES AND NERVOUSNESS.
The ingredients of this elixir have long been known to the medical profession. The manufacturer has combined them so as to form a pleasant remedy that can be taken with perfect safety, and with a certainty of effecting a cure in the diseases indicated.
This preparation possesses complete control over the nervous system. It will promptly cure all forms of Neuralgia; Nervous, Bilious and Sick Headaches; Nervous Irritability; Excitement and Prostration; Tooth Ache, and Ear Ache.
The effects of the remedy manifest themselves in from 20 to 30 minutes after taking the first dose.
Office, 33 Union Square, New York.
For sale by Druggists.

SMITH & McNELL'S
HOTEL,
ON THE EUROPEAN PLAN,
Cor. Fulton & Washington Streets,
193 to 199 Washington and 198 Greenwich Sts.
NEW YORK.
300 well heated, ventilated and furnished rooms 50c. and upward per night. Restaurant supplies 5000 meals daily. Open day and night.

CHILLS AND FEVER.
Dr. HENRY'S
FEVER AND AGUE PILLS
Contain no quinine or any noxious compounds that injure the constitution. Most other remedies leave the system in permanent disorder, and a prey to disease and premature death.
This medicine has been used during a period of nineteen years in a regular practice of medicine in the treatment of
CHILLS, REMITTING FEVERS, AND DUMB AGUE
With permanent success.
A single box of the pills have frequently cured the most obstinate and chronic case of Fever and Ague.
One box by mail, 60 cents; two, $1.00.
W. A. LECKLER,
Wholesale Agent,
48 VESEY STREET, N. Y.

©Maryland State Archives msa_sc3326_scm8204-0597