THE WEST SHORE,

A Sixteen Page Monthly Illustrated Paper, published a PORTLAND, OREGON, by

L. SAMUEL, 5 Washington St.

TERMS OF SUBSCRIPTION,

(Including Postage to any part of the United States):

One copy, one year.....$1.50

Single Number.....20 cents

Postage to foreign countries, 25 cents additional

☞ Subscription must be paid in advance, and all papers will positively be stopped at the end of the time they are paid for.

Remittances can be made by registered letter, or by order on any of the Portland business houses.

OBTAINING COLORING MATTER FROM COAL.

During the past few years the coal-tar colors have been in much favor, and various chemists have given great attention to their production. Dr. Meusel, of Breslau, says the London *Mining Journal*, has now invented a process according to which fossil coal, cannel, anthracite, or bog-head coal are treated advantageously in fine powder with oxidizing chemical compounds by ordinary or higher temperatures in suitable vessels. The most advantageous method of carrying out these improvements is to heat the different coals, finely powdered with nitric acid or with potassic or sodic nitrate, and sulphuric acid. Also potassic chlorate or potassic chromate, or hypochloride of lime, or compounds of manganese, may be used for the reaction, with or without an acid. By the action of nitric acid, or nitrates with acids, compounds of nitrogen with oxygen are developed, which are to be used in the manufacture of sulphuric acid or salts, containing nitrogen bound to oxygen.

Coals treated in this manner undergo a great change; a great part of the coal can now be extracted by caustic alkalies, and by ammonia, or by the carbonates of soda, or potassium, advantageously. By heating the solution of alkalies with the product of the above treatment, a deep brown-colored solution and a black residue is obtained. The black residue is a deep black covering color, which may be used for lime color (glue color) or oil color, or with bone black, or, instead of bone black, soot or graphite. It may also be applied for the black for printing, or for blacking, and washing, painting, besprinkling, or other like purposes. The brown solution of the alkali salts may be used directly for coloring, for instance, by fluids, by soap, or otherwise. The solutions give, by evaporating the alkali salts, and by decomposition with metallic salts, new salts of metals, which are to be used as colors.

By the method of decomposition the salts of strontian, of barium, of magnesia, of aluminium, of manganese, of iron, of cobalt, of nickel, of zinc, of cadmium, of lead, of tin, of copper, and chromic oxide are obtained. All these bodies are black, black brown or brown colors, which may be mixed with other coloring matters. They can be used for painting, printing and coloring. These colors are obtained as precipitates and can be purified by water. The alkali solution can also be decomposed by the soluble metallic salts above (cotton or wool), and may so be used by the dyer. The alkali solution can also be decomposed by acids; a black brown precipitate is obtained, which may be washed in water, and which may also be used as a coloring matter. This black precipitate is the acid in which the coals are partly converted by the treatment with oxidizing compounds. By these means fossil coal is oxidised, and the black residue obtained by the decomposition of the oxidized fossil coal may be applied as a coloring matter to various useful purposes. The product of the oxidation of fossil coals is soluble in alkalies, and the compounds of this product of oxidation may be applied as a coloring matter to various useful purposes.

INSTITUTION OF NAVAL ARCHITECTS.—This institution is a favorable instance of the rapid growth of societies with a clearly-defined object. Since it was launched, in 1860, it has increased greatly in importance, and has done excellent service in directing the attention of naval architects to the scientific side of their profession. There is ample evidence that good ships were built in the olden time by rule of thumb, as people spoke intelligibly before grammar was invented; but there can be no doubt that the reduction or elevation of any kind of human effort to scientific rule is invariably a gain. Now that shipbuilding, especially as applied to warlike purposes, is passing through a period of transition, the deliberations of scientific marine architects are peculiarly valuable, inasmuch as, until a great sea-fight actually occurs, scientific theories must regulate the construction of our fleet. It was a happy idea to inaugurate a series of autumnal meetings by a visit to Glasgow, the great stronghold of the iron shipbuilding trade since that branch of industry has been driven from the Thames. The figures quoted by Lord Hampton show, indeed, a serious falling off in the building trade of the Clyde; but while 174,000 tons of shipping per annum are turned out there is no need for despondency. We must confess that we do not follow Lord Hampton in what appears to us his inordinate admiration for sailing vessels. More particularly calling for remark is his observation that "in our men-of-war he would rather see auxiliary screws than solely screws." We thought we had enough of sailing ironclads when the *Captain* went down.—*Iron.*

PURIFICATION OF WOOL.—The process, patented some time ago, for the removal of straw, burrs, etc., from wool, by treatment to sulphuric acid, has been modified by Lisc, as follows: The stuff is worked for one or two hours in a bath consisting of about 26 gallons of sulphuric acid, of three to six degrees, one pound alum, half pound salt and 750 grains borax. It is then treated in a centrifugal machine, and afterwards subjected to a temperature of 212° to 248°. For removal of the acid it is first washed with pure water for an hour and a half, then treated for two hours with fuller's earth, soda and lime, and finally washed for two hours with fresh water. As sulphuric acid can only be employed with uncolored cloths, or such as have been dyed with indigo, chloride of zinc and chloride of manganese diluted to six degrees are substituted with fabrics otherwise dyed.

LETTERS TO BOYS AND GIRLS.

DEAR CHILDREN:—I believe I must tell you, little ones, what I can see as I sit in the sitting room of a farm-house and look out among the bowers on the veranda. It is something that looks like a small camel with a lady on its back, but when one looks closely they discover that it is a crook-necked squash, with four sticks stuck in for legs, and a rusty nail for a tail. A part of the hump on its back is taken out, so that a little doll dressed in pink silk can have a seat there and take a ride. There the little lady sits, bolt upright, while the long neck of her beast rises before her; and he really has quite a resemblance to that "ship of the desert," a camel. This animal was manufactured by little Miss Winnie, and she is a sister of the boy who washed dishes so nicely for his mamma, whom I told you about some time ago.

Now, Winnie wants me to go up in the chamber over the woodshed, and see her play-house. I have to be sure to ring the bell. This is done by pulling a string which is hanging down by the stairs. A "really, truly" door-bell is tied to a stick, which is stuck into a crack at the head of the stairs. To that stick is tied the string which every one who goes there must pull. In this chamber there are various things, such as benches, stoves, dried beans, peas, corn, etc., but one is not expected to see them at all. The place where they are is supposed to be the door-yard. I enter Winnie's kitchen, where there is, of course, a stove. If it is a little parlor stove instead of a cook-stove it makes no difference, for one can play cook just as well, you know. The corner of a wool-press answers for atable, even for a dining-table; except when company comes; then they can eat in the parlor. The parlor table is made of boards laid upon blocks, and when it has a good large table-cloth upon it no one would know that the top was rough boards and the legs only blocks. The floor is carpeted with a piece of zinc. The walls (a door on one side makes a good wall, as it has been put up here until it is wanted below, and boards are used for partitions) are highly ornamented with pictures which have been thrown aside by the "big folks." A looking-glass in a burr frame hangs so high that Winnie can just see whether her very curly hair is "all right" before she receives her visitors. The dollie's bed stands in one corner. This is carefully covered with mosquito bar, so that none of the doll family need be troubled with flies. What if there are holes in the netting, the dollies never mind it, so I must not. Winnie's rocking chair stands near the bed, and that or some old stools do for seats for company.

Now, I have had an object in view while telling you about Winnie's playthings. I know that some children take as naturally to amusing themselves as "ducks to the mud," while others are sighing from one week's end to another for "something to do," or "something to play with." Bless you, my children, there are quantities of plaything lying around if you only knew how to fix them up a little, so that they will be real nice to play with. Perhaps you have no summer squashes to make into camels, but, if you can do no better, you can take a little block of wood and have four nails for legs, and a fifth for a tail, and two tacks for horns. I have seen whole droves of cattle gotten up in that style. If there is no shed chamber in which you can have a play-house, and no room inside the house or shed, why, the world is wide, and there is almost always room out of doors. Perhaps I will tell you in my next letter of the playthings I used to have, and how I made them.—*J. E. J., in Rural Press.*

A GRIEVOUS CATTLE DISEASE IN OHIO.—A dispatch from Cleveland, Ohio, says: A terrible cattle plague has broken out in the suburbs and the country surrounding this city. The veterinary surgeons of the vicinity have carefully investigated it, and pronounce it a species of Texas fever. It originated probably by the importation of Texas cattle. This year these animals are covered with ticks of two varieties, whose bite is a deadly poison. The blood impregnated with the virus of these ticks flows to the liver, where it destroys the delicate secretionary membrane, and from there to the kidneys, whence it is passed to the bladder. The disease was at first thought to be red water. Cattle are dying daily. The milk and beef are impregnated, and the animals are often so far gone before they are known to be ailing that no help remains for them. Several cases of children being poisoned in the city from partaking of the milk have already come to notice, and the people are thoroughly alarmed. The *Leader* will publish, to-morrow, a long statement from a surgeon who has treated more than 40 cases, and made a careful post-mortem examination of the bodies. He says that it can be cured if taken in time. His plan is to wash the animal with a lotion, which acts as a disinfectant for the ticks and an antidote for the poison. The affected beef is quite readily detected by a skilled eye. The fatty portion is brownish yellow and the lean quite red. When exposed to the air for a short period, this meat becomes putrid and of a dark brown color. The disease is very infectious. Cattle become infected by contact with the virus deposited upon the grass by diseased cattle while feeding, and by drinking from a stream which has flowed through a pasture containing diseased cattle. The plague will prove very disastrous in this dairy section if it is not immediately checked. The symptoms are a heavy falling off in milk, and bloody urine. Death follows in a few hours.

TROTTING STALLION "ADMINISTRATOR."

A FAMOUS TROTTING STALLION.

The accompaning engraving shows a thoroughbred trotting horse, which is a type of a race of animals largely used for the improvement of the common horses of the country. This is the interest we have in trotting animals. Speed is a very valuable characteristic in the horses which are bred for general purposes, and from the thoroughbred trotting stallions this element of speed must come. The nobilities of the horse are not bedimmed by the abuses of the race track. The horse is "Administrator," and is owned by Col. Stevens, of Poughkeepsie, one of the leading New York horse breeders. We have never seen the animal, but the likeness is pronounced faithful and life-like. "Administrator" was sired by Ryadyk's "Hambeltonian," his first dam, a fast trotting mare, by "Mambrino Chief," his second dam by "Arabian Tartar," third dam by "Durco Messenger," and, in addition, nothing more need be said of his breeding as an impressive trotting sire than to refer to the fact that he is the nearest possible combination of the blood of the two great trotting families of Ryadyk's "Hambeltonian" and "Mambrino Chief," that have produced themselves, and through their sons and daughters, over 125 performers that have made a record of 2.30 or better.

THE PEARL SUPPLY.

The results of the Ceylon pearl fishing carried on during the months of March and April of the present year, says the *British Trade Journal*, are reported to have been very satisfactory, the yield of oysters having been larger than in any season since 1855. The banks known as the South-East and East Cheval Paars and the Modregam Paar were selected, after examination, as being in the best condition for fishing, and nearly 7,000,000 oysters were brought up in the 30 days on which diving was carried on. Active operations were interrupted by bad weather on two days only, and, although the government had given notice of only 15 days' fishing, the oysters were found to be so plentiful that the diving was continued for twice that length of time. Over 1,500 boats were engaged in the fishery, of which, however, only 130 were "diving" boats, and of these 100 were selected for the fishing, and sent out in two divisions of 50 each on alternate days. The anticipations of a poor season had restricted the attendance of divers, and as only about 50 of these appeared, they had to work every day, instead of, as usual, on alternate days. Only one-fourth of the oysters brought up go to the divers' share, the remaining three-fourths going to the government, and being sold day by day to the dealers and traders who attend the auctions from all parts of India, and even from China and other countries. The average rate realized was 36 rupees, or £3 12s per 1,000 oysters, and the total produce of the government share was about 100,000 rupees, or £10,000, or nearly double the estimated yield. The result of the fishery in 1874 was only 1,700,000 oysters. Silavatural is the headquarters of the fishery, and 4,000 or 5,000 persons were brought to the village in connection with the fishery. The produce of pearls was very good, many large and valuable specimens having been found. The method adopted for obtaining the pearls is to place the oysters in a large vessel called a ballam, and allow them to remain there till the fish becomes putrid, when the shells are easily separated, and, the mass being washed in water, the pearls fall out and are picked up. The excellent results of the late season's fishing are attributed to the measures adopted by the Ceylon government for periodically inspecting the beds or banks of oysters, and arranging for the fishing of those only which are found to be in a "ripe" state for fishing. A pearl bank may be either too young or too old to produce good pearls, and it is only by careful examination of the ground and a periodical selection of samples that the proper time for fishing can be ascertained. At present it is the custom for a bed to be fished only once in three years, and the Cheval Paar and Modregam Paar, the scene of this year's operations, will certainly not be fished again till 1880.

SOLILOQUY by General Howard: "Yes, the noble Indian is fast fading away. Step by step he has been driven toward the setting sun. I find it extremely difficult to find him even now. Soon the last survivor will stand high upon the western horizon and, pausing to wipe a tear from his bronze cheek—Hark! Methinks I hear Chief Joseph at work stealing horses again."

CONNECTICUT don't like to be behind and don't want to brag on nutmegs and hams, so she egs on Willimantic to brag about pigweed seven feet high. Our alfalfa roots are 20 feet high, down in, and we once saw an oat root six feet long.