

Patent dated May 8 1855: I claim, in combination with the hinged frames or hinge-joint, the locating of the conductor's or driver's seat in rear of the supporting axle, so that as he moves forward or back on his seat, the rear frame may act as a lever for lowering or raising the seating part of the machine, and thus throw it into or out of the ground as circumstances may require in turning around or passing over any obstruction substantially as set forth.

DESIGN.

BAROMETER CASES.—T. R. Timby, of Medina, N. Y.

A Batch of Information.

MESSEES. EDITORS:—A Polish gentleman once told me that a liquid salt (perhaps fluid borate of soda) was sold in Poland, which could be used with a brush and was employed over the whole of the inside of rooms, and rendered them completely fire-proof, in place of alum water, or solution of iron or tin.

There appears to be, a want of some article to fasten manuscripts in place of vulcanized india-rubber, which I have found to perish soon. Could not a strap of Chamois leather be easily contrived, say half an inch wide, attached to one side, and passed through an eye, similar to the elastic or French gloves?

Your article, "Steam Power versus Wind," reminded me of a conversation I had with a person in Tarrytown, who remarked, he had a freighting vessel there which made its passage almost equal to steamboats. On enquiring about her construction, I found she was built somewhat of a scow shape, drawing little water, in fact like the ice boat, working upon the surface and not displacing much water, and kept to the wind by an ingenious center board, which the helmsman can raise or depress at pleasure.

I think you are mistaken about an artificial ultramarine being produced from cobalt. The cost of the cobalt blues is more than ten times that of the average of artificial ultramarine, so much so that great pains have been taken to rid the same of the purplish hue which it has, so as to make it resemble cobalt, which, when pure, is the only pure blue color known among artists, and is much more costly for glass and porcelain pigments than any other, as I know, selling them both to consumers.

If marble is simply a carbonate of lime, why cannot it be imitated somewhat like the plaster of Paris or sulphate of lime, and in place of tedious sculpturing, why cannot cuts be made, like those of bronze? S. N. DODGE.

[Our correspondent's letter is full of varied information; therefore, we have pleasure in adding to it a few remarks of our own. The liquid glass sold in Poland is soluble silicate of soda; it is much used on the continent of Europe, and might with advantage be employed here. There is a variety of ultramarine made from cobalt combined with alumina, but the best is manufactured from alumina, silica and soda, with a little sulphur, in fact it is the artificial production of the mineral lapis lazuli.

The reason why marble cannot be very successfully imitated, is that its beauty depends upon the slowness with which it has been deposited and the pressure to which it has been subjected; we must attain some mechanical equivalents for these forces, or we shall never be able to compete with the rocks of Mother Nature, and, as yet, we do not possess them.

Effect of Saleratus on the Teeth.

Dr. S. Baker, of Portsmouth, N. H., has sent us three human teeth, one of which is perfect, another has been steeped in a solution of cream of tartar and it is slightly corroded, while the third, that has been immersed in saleratus, is completely eaten into holes. We do not, however, think this is a fair test, as we perfectly well know that in baking, it would be decomposed, and the alkali which it contains would form some less virulent compound with one of the constituents of the bread, most likely an acetate of potash, in which case the teeth would not be much injured.

Carbonate of potash or saleratus cannot be itself so very injurious; for in Britain, where teeth are proverbially good, there is a great quantity of baking powder used, one of whose chief constituents is this same salt.

The dentists are evidently on the wrong track in trying to discover the cause of decay

in American teeth, and we have an idea that were they to turn their attention to the climate and general habits of life among us, they would be nearer the mark. Let them try.

Important Patent Case.

UNITED STATES CIRCUIT COURT—SOUTHERN DISTRICT OF NEW YORK.

Before Hon. Charles A. Ingersoll, Justice.

Nov. 11.—*Alfred T. Serrell vs. Denmark P. Collins and Abijah Pell.*—This was a suit for the infringement of Letters Patent, granted by the United States to the plaintiff, Alfred T. Serrell, for a machine for making wood mouldings, in which he claims as his invention, the combination of moulding cutters with an adjustable feed ring or rings, in such relation to each other that the ring or rings shall travel in a line with the deepest cutting member of the moulding cutter and be capable of maintaining that relation under the varying circumstances of a change of form or size of moulding.

The original patent of Mr. Serrell was issued on the 16th day of May, 1848. His claim in the original patent was limited to a combination of three things: that is, the feeding device, rotating cutters, a stationary plane. He soon found that persons infringed by using only two of the three parts, that is, the feeding device and cutters, omitting the stationary plane, which was not essential to the use of the other two parts; he therefore brought suit against such alleged infringers and was defeated upon the ground that he had claimed only a combination of three things, while the alleged infringers had used only two of those things in combination, and therefore had not infringed the claim, although he was equally the first inventor of the two things alone in combination.

Mr. Serrell, in view of this defect in his patent, thereafter surrendered it and obtained a re-issue on an amended specification; and the present suit was brought upon the re-issue against the defendants for using the two parts in combination: that is, the feeding device and revolving cutters in combination.

The defendants set up in defence the Woodworth Patent and a machine stated to have been made by Horace V. Seigler and one Howe, in which a feeding roller with sharp spikes in it had been used as a feeding device in combination with cutters, before the invention of Serrell, and also, that Serrell's invention was not patentable; but the defendants failed in their attempt to maintain any of their defence, and after a severely litigated trial of six days, the jury rendered a verdict in favor of the plaintiff and his patent, and found \$2,000 damages against the defendants for what they had used the invention during the time between the reissue of the patent and the commencement of the suit—leaving them still liable for what they have used it since the commencement of the suit, and also are to be restrained by injunction from further use of it. This verdict also establishes the validity of the patent.

For the plaintiff, George Gifford. For the defendants, Charles M. Keller and Peter Van Antwerp.

MI or Cinnabar.

The first of these is the ancient and the last the modern name for the same substance, which is a mineral of beautiful shining red color, and is an ore of mercury or quicksilver. Artificially prepared cinnabar is much preferred to the native, as a pigment, because of its freedom from earthy impurities, and it has long been an object of chemical manufacture, and is generally known as vermilion. It is a compound of sulphur, with mercury, each in equivalent proportions. To manufacture it, about five or six parts of mercury are added to one of melted sulphur, and when thoroughly combined and constantly stirred, heat and light are evolved, and a violent cracking and spitting indicate the termination of this part of the process. The result is a dirty, blackish red mass; this crude product, after being pounded, is mixed with a small quantity of sulphur, this is placed in a glass flask until it

is about half full, when it is closed with a charcoal stopper. The flask is then placed on a bed of hot sand (kept hot by a slow drawing furnace), and is left to remain thus red-hot for some hours, at the end of which time the cinnabar is found sublimed in the flask.

In Amsterdam, where it was first made, they still pursue a similar method to the one they have always done, but the one we have given is the essence of them all. Of all kinds of vermilion now made, the Chinese is the best, being sold for about six times the price of home made; it has a rich, almost inclining to carmine color, and no foreign substance can be detected in it, except a little glue.

At the present time we apply the term minium to red lead, which is made by roasting lead in a slow reverberatory furnace having a broad hearth so that a great surface can be exposed to the action of the heated air. It is kept continually worked up and down until the whole mass changes to the well-known color of red lead. Minium is often used to adulterate vermilion, and it is a fair supposition that the reason why our ancestors called them both by the same name was that they did not know which was which.

Supposed Meteorite.

On the 17th of June last, there fell, about ten miles southwest of Ottawa, Ill., a quantity of cinders. The weather had been showery, but there was no thunder or lightning. There appeared to be a small black cloud hanging over the spot where they fell; the larger ones were imbedded in the earth, while the smaller ones were only half buried. On the 17th of September, this year, a mass of lava "the size of a barrel," says the *Sunny South*, of Aberdeen, Miss., fell about ten miles from that place, and at the time it excited a great deal of attention for miles around. The former of these, we have every reason to believe, and we think that the appearance of the cinders point to a terrestrial rather than a celestial origin; but, we think, that the editor of the *Sunny South* has drawn upon his imagination a little and colored the facts of our first instance. We should much like to know how large the piece of lava was that fell at Aberdeen; for a piece the "size of a barrel" is very indefinite and unsatisfactory.

Sewers.

When from a little village, there arises in a few years, a large city, one of the first and most important considerations ought to be the sewerage of the place, as on this depends the well-being in mind and body of its inhabitants. No city ought to be built where there is not a sufficient fall for its sewerage, and it will be found in the plans of all ancient cities that the builders knew of this advantage, although often their waste ran through the open streets. Yet, in the history of the past, there is nothing the subject of so much praise and elegant description as a "city set on a hill," and one of its chief advantages was its facilities for getting rid of the sewerage material. In all places drains are an important consideration wherever any number of persons are congregated together, and as health is our dearest blessing, it should be first attended to. One of the most valuable means of doing so is to take care that near our dwellings, or in the places where we meet, there are no heaps of decaying animal or vegetable substances which can impair our health, or render us unfit for the discharge of our duties, as most assuredly they do.

American Breech-loading Guns.

Mr. Eastman's six breech-loading cannon, recently imported from America, were tried on the Arsenal Wharf, Woolwich, under the supervision of Lieutenant-colonel Wilmot, superintendent of government gun factories at Woolwich, and having been twice fired with a double charge of blank cartridge—namely, 20 lbs. of powder—they were examined, and found to have stood the test satisfactorily. From their enormous weight (17 tons) they did not evince the slightest recoil.—*London paper.*

Nail Machine.

This machine punches the nails from a rod, which has been previously rolled to a peculiar shape, to produce a number of partly-formed nail blanks, of which several are arranged side by side, with their length parallel to the width of the rod. The peculiar form to which it is rolled gives it in certain parts of its longitudinal section the appearance of a ratchet, and the invention consists in employing the nail rod itself as part of the ratchet motion which feeds the machine. The invention also consists in giving the punches a series of movements back and forth to the nail rod, and a similar intermitting motion along the rod, so that a greater number of nails than the number of the punches may be cut from the width of the rod. John Wootton, of Boonton, N. J., is the inventor of this machine.

Bombs.

An improvement in these projectiles was patented this week by Henry Bates, of New London, Conn., which consists in attaching to the butt end of a bomb, or other projectile of similar character, a spiral spring or coil of wire, which, when the projectile is placed in the gun from which it is to be discharged, is compressed together, and lays close to the projectile, but when it is discharged is caused, either by reason of its own elasticity, or by the resistance of the atmosphere, to extend itself, in the form of a tail, some distance in the rear, where, by the resistance it meets with, it serves to direct and steady the course of the bomb. He has also so improved the fuse tubes that they cannot be blown into the bomb on the discharge of the gun, and so set fire to the bomb before it has accomplished its flight.

Elevator.

This invention is intended to raise bricks, stone, mortar, and other materials, to an elevation, without the use of ladders, baskets and pulleys, and the like. It consists in a hollow vertical tube the height required, and in the bottom of this the articles to be raised are fed; one man or more may turn the handle of the crank, and by suitable and simple mechanism the contents will be raised. It is continuous in its action, and is the invention of J. Crawshaw, of Rochester, N. Y.

Feeding Paper.

Richard M. Hoe, of this city, the inventor of the celebrated printing press, has this week patented an improvement in the feeding device of cylinder presses, by giving the drop roller, or the one that pulls the paper to the type, a positive instead of an intermitting motion, depending on contact with the printing cylinder, such as it formerly had. He gives it a positive motion, independent of any other part.

Grinding Mill.

This invention employs a grinding burr or stone in combination with adjustable rests, whereby articles or substances may be ground very rapidly, and by very simple means. It is mainly applicable for grinding food for stock, although it can be applied to other useful purposes. It is the invention of Chas. Tripp, of Ann Arbor, Mich.

COMMISSIONER HOLT'S decision, as published in our last number, is attracting general attention already. We have received letters strongly in praise of its ability and liberality. It encourages inventors to set themselves to work under the conviction that their rights will be properly cared for at the Patent Office.

REMOVAL.—We regret to state that Capt. Herbert has been removed from the position of Chief Examiner in the Patent Office. He was a useful and much esteemed officer, and we sincerely hope that the causes which have led to his removal may be set aside, and he be restored again to his former position.

The highest speed ever made on the ocean was by the clipper ship *Flying-Scud*, 460 miles in twenty-four hours.