Notes on Ancient and Curious Inventions.—No. 7.

Removing Head Dandruff—On the 6th of April, 1842, James McKay, residing in New York City, obtained a patent for a lotion made of the following materials for removing dandruff from the head. Boil a pound of carrots until they are soft, in a quart of water, then squeeze them in this liquor to press out the juice, and add a pint of rum, a gill of sweet oil and about 50 drops of the oil of bergamot, to scent it. This is the patent lotion for removing dandruff. It has the appearance of being a very good hair wash, as we should judge from the nature of the ingredients. A solution of borax will remove dandruff, but it has a tendency to make the hair fall out.

Coloring the Hair—Augustus Grandjean of New York, obtained a patent on Feb. 28th, 1841, for a very peculiar composition for dyeing the hair of the head and the whiskers, and giving to a red moustache a splendid black appearance, equal to that on the upper lip of a Persian or Turk, we suppose. The ingredients consist of well slacked lime sifted, 4 parts (by weight) ; oxychlorate of bismuth, 8 parts, and venetian red, 1 part; these three are first well mixed together, and to them are added, gradually, eight parts of fused yellow protoxyd of lead and soft water, containing some gum arabic in solution. When these are all mixed together, by stirring for 4 hours, to the consistency of a paste; they are then allowed to rest in a suitable vessel for three or four days, after which some pulverized brick is to be added and mixed, and the whole molded into cakes, called "Grandjean's American Brick." These notorious bricks were to be applied to the hair before going to bed, and no doubt this is the reason why they have not yet become notorious for building purposes. We would not like to carry such a brick in the inside of our hat. Litharge and powder of lime mixed together and formed into a paste, will color the hair black, but it is an abominable application, and we caution our readers against its use.

Catching Ducks—In January, 1830, a patent was granted to Wm. Coffield, of Norfolk, Va., for catching ducks by the use of nets with meshes about six inches square. The nets were to be set on the surface of the water, and as the ducks arose from feeding on aquatic plants below, they were to be noosed in the meshes; or these nets were to be sunk in the water, and when the ducks dived down they run their necks into the meshes. The difficulty in [illegible]ng out this method of catching duck[illegible]isted in the fact that a duck could run [illegible]ad back or out of the mesh of a net as e[illegible] as he ran it into it.

Ink—In September, 1835, a patent was obtained by John D. Myers, of New York, for making ink into cakes. Common writing ink was deprived of its moisture by evaporation and when reduced to a proper consistency was molded into cakes, then dried. By the application of hot water to dissolve these cakes, they were made into writing fluid. They were easier carried to a distance than inks in bottles, but they never came into use.

On December 5th, 1842, Peter Ferris, of Greenwich, Conn., was granted a patent for writing ink made as follows: Boil 12 lbs. of logwood in 12 gallons of soft water for three hours, then strain through a sieve, and to the clear liquor add 10 lbs. of nut galls, 3 lbs. of copperas, 6 oz. of blue vitriol, 4 lbs. of gum arabic, 1 lb. of Prussian blue, and 1 lb. of indigo, and 1 lb. of sugar.

All these ingredients are then boiled for 5 hours, and left to stand 10 days, stirring it daily, then the clear liquor poured off, and if there be less than nine gallons of it, water is added to make it up to this quantity, and a gallon of alcohol likewise. It is stirred regularly for ten days, then bottled up for use. This is a good permanent writing and copying ink, but it is somewhat expensive to manufacture.

Gun Powder Engine—Explosive Engines are not of recent date; they have been "jack-o'-the-lanterns" to many inventors, and perhaps may be so again, but hereafter let it be known to all such inventors that no patent can be granted for inventing such an engine, as one was obtained in June 29th, 1843, by Henry Rogers, of New York, in which he not only claimed gunpowder, but any other explosive compound, especially for propelling locomotive engines to run on common roads. This engine, we suppose, never ran on a common road. Common-road locomotives have proven rather unfortunate projects.

Adhesive India Rubber Plaster—On March 26th, 1845, a patent was obtained by H. H. Day and Wm. H. Shecut, of New York, for a strengthening or adhesive plaster, for rheumatism, sprains, pains, &c. It was made by taking 5 lbs. of india rubber reduced to shreds and steeped for some time in soft water; then it was put into a vessel containing as much spirits of turpentine as would cover and dissolve it. After this it was pressed through a fine sieve. Four ounces of cayenne pepper were heated in a quart of turpentine, and a portion of it was ground with a pound of litharge; to the remnant of the pepper tincture 6 ounces of the balsam of Peru was added; a pound of pine tree gum was then melted in a pint of turpentine, and the whole of these ingredients were then mixed together. This plaster appears to be capable of putting to rout the most incorrigible rheumatism, if put upon the right spot, at the right time. The materials described are spread upon some suitable substance, which was perforated with holes and applied in the usual way.

Toothache Remedies—We cannot do better than finish up this article (No. 7) with a few powerful patented assaults against that arch enemy of peace and comfort—the toothache. Three patents have been granted for toothache remedies; the first, in 1815, to L. Merritt and L. Rodgers, of New York, for driving off the ache with steam—high pressure, we suppose. The second was granted to Thomas White of Ohio, in 1829, and the third at the same time, to Prof. Pennington, of the same State, the famous projector of carrying the mail, passengers, &c., by steam balloons. The remedy of White consisted of camphorated brandy, laudanum, oil of peppermint, camphor nitric acid, opodeldoc, venice turpentine, and tar. all mixed together and applied to the teeth. No person would be benefitted by knowing the proportions of this ridiculous toothache remedy. Prof, Pennington's specific consisted of French brandy and spirits of turpentine, in which Indian turnip was soaked. This was applied to the diseased tooth on a piece of cotton, and if it did not cure the aching of it, the tooth might be extracted in the ordinary way, we suppose, although the patentee omits this claim in his recipe.

[For the Scientific American.]

The Sperm Whale and its Food.

The full-grown male Sperm Whale is from sixty to seventy feet long, and not far from 30 feet in circumference in the largest part. The head in front is nearly square, or has the corners rounded off, and is much thinner next the lower jaw, becoming thicker towards the back, where it is almost as broad as the back, increasing a little in size up to the eyes, which are located about one-third of the whole length of the fish from the extreme end of the nose. The eyes are about twice as large as those of an ox, and have lids to shut over the ball. From this fact we may suppose it sometimes sleeps, although I never caught one so: the lid may serve to protect the eye from injury. Be this as it may, none but this species of whale, or such as breathe the atmosphere, have eyes with lids that can be shut.

From the eye, the body enlarges a little, until we come to the middle of the fish, and from here it tapers down to the tail or flukes, as whalemen call them The flukes are about ten feet across, and lie horizontal when in natural position.

There is a large hump on the lower part of the back, and several small ones near the tail. There are two small fins, one on each side, just behind and below the eye; these fins are about three feet long, and one and a half wide. I think their only use is to steer with. The upper jaw is about ifteen feet long from the socket to the extreme end or point; the lower jaw is armed with large teeth, which stand apart separately; there are from twenty to twenty-five on each side. There are no teeth on the upper jaw; instead of them, cavities are provided, into which the lower teeth fit. The tongue is small, about two and a half feet long by one wide. The throat is small, and the fish could not swallow a man: therefore it was not a sperm whale that swallowed Jonah.

When feeding and not disturbed, the fish will stay down under water from one hour to one and a quarter. It then has to come up to the surface to breathe or spout, and it will stay up from ten to fifteen minutes. In this time it will spout or breathe from fifty to sixty times. It throws out no water when it spouts, as has been represented by some. At the end of this time it "turns flukes," or pitches and dives down.

This whale feeds entirely on the "squid," or cuttle-fish, as I believe they are sometimes called. The "squid," I think, lives by suction; it has no bones in its body, strictly so called; it has a kind of bill, short and thick in form,—something like horn or turtle shell in texture and color. It has two thin ieces of skin on each side, one at each end, or nearly so, and when small can fly a short distance, on the same principle as the flying-fish or squirrel, by impetus, always rising against the wind. It has long arms or fibers that extend forward from the fore part of the body, with which it embraces and holds whatever is intended as food. They grow to a very large size, and so strong as to drown a man by embracing him. This I was told did actually happen to a native of the Sandwich Islands while I was there. I have frequently seen large pieces of squid floating on the water, perhaps killed by the sperm whale. I saw a piece once, while sailing, which I judged to be ten feet in diameter. I have taken them from the whale's stomach, whole, from two to three feet in length.

The squid is active, and when pursued by an enemy, can eject an inky fluid that will cover the water for some distance round, and thus escape sometimes from his enemy.

I have said that I supposed the squid lived by suction; this I shall prove by analogy. As before stated, the squid has no teeth, and of course cannot chew; its bill is to hold fast with. On good whale ground, if we take a piece of smooth pearl shell, it will shine brightly; let it be three or four inches long and one inch wide; to this lash three fish hooks at the lower end of the shell, back to back, so as to have the points outward; have a long line attached to the upper end of the shell, with a small sinker. On some still night lower the hooks by the line into the ocean, and as it lowers, jerk it up and down, and continue to lower it until you feel something on the hooks; thus you may at almost any time hook up squid. Seeing something bright or shiny, they immediately dart to it, and embrace it, and so will be hauled up.

Now comes the question, how does the whale catch the squid, who is nimble and on the look-out? I think it is done as follows:—The whale goes down to such depths, taught him by a law of nature, where lives the squid which was created for his subsistence. The jaw of the whale, when not disturbed, hangs down, I suppose from its great weight, and so his mouth is open. Displaying those large white glistening teeth, and sides of the jaw also white and shining, the squid no sooner sees them than he darts on to the jaw and teeth and so becomes an easy prey. If this were not so, how could the whale, large and clumsy as he is, ever find his prey? With his eye where I have described it, he would be likely to go by it and round it, or see it and lose sight of it. Does any one suppose the squid would lie still, hoping that the next time the whale came round he would be so lucky as to take and devour him? I believe not.

The female whale is much smaller than the male; when full grown she is from twenty to twenty-five feet long, and resembles the male in general appearance. She has never more than two young ones at a time, and seldom more than one. She lies on her side to suckle them, and has only two teats, situated near the lower part of the belly, a little on each side, in slits or creases that cover them. The calf puts his nose into one of those slits to suck, and so the water is excluded. The whale is warm blooded.

CHARLES F. BROWN.

Warren, R. I.

[The writer of the foregoing article is a well known sea captain, and moreover, an inventor of much ingenuity. He relates his account of the sperm whale from his own observation while among them in the Pacific Ocean. His statement, therefore, may be looked upon as correct, besides being of much interest to the reader.—ED.]

California.—Wonders of the Golden Land.

Northerly Winds.—Northerly winds are a peculiar feature of the spring and summer seasons of California, and at times have a highly injurious effect on the growing vegetation. They lower the temperature rapidly, bringing in heavy fogs on the land from the sea. From the rapid reduction which they cause in the temperature, in the course of half an hour the thermometer will often fall ten or fifteen degrees. These winds dry up the moisture of the ground with wonderful rapidity. They attenuate the air to such a degree that frosts are easily induced late into the summer months. When the traveler is caught on any one of the great plains of the country while this wind is blowing, it renders the skin very dry; the eyes, the nose, and the ears are unpleasantly affected, and in the whole system is produced a most unpleasant feeling.

A Great Artesian Well—A new Artesian well has recently been opened near San Jose, Cal. The pipe is two feet in circumference, and the water flows up through it to eight feet above the surface. It rushes up with great force, and with a noise that is heard at a mile distant on a calm evening. It sends forth a thousand gallons per minute. Artesian wells are designed to be the great fertilizers of California.

The Gold Mud Filling up the Navigable Rivers—The San Francisco *Chronicle* says:—"By rough estimate forty thousand tuns of earth are washed away from the mines every week by the rivers. It is filling up the rivers, not only by their banks, but also their main channels. It is not far ahead in the future that the steamboats which traverse the Sacramento river must of necessity be very shallow. The river is not navigable now, at low tide, by the steamers now on the line, and every year it is growing worse.

Every year the canals are increasing, drawing off more and more of the water of the rivers and carrying it through the dry diggings, where it is absorbed or evaporated without ever again reaching the rivers. Thus the strength of the currents in the rivers is lessened, and consequently the dirt swept down from the mining localities along the rivers is more readily deposited in their channels. Not only are the rivers filling up, but the harbor of Benicia is also filling up. So is our own harbor. Since the completion of Clay street wharf—some three years ago—the water at its end has shallowed eleven feet, being now but twenty-one,—then it was thirty-two feet."

Curious Lake.—The Placerville *American* (Cal.) gives an account of a peculiar lake on the east side of Bear River Valley. It is an immense pool or spring, rather than a lake, a little over one hundred yards in length along the base of the mountain, and nearly the same in width, but extending in one place under a shelving rock that nearly touches the surface of the water for many yards. That it is an immense spring issuing from the mountain, is apparent from the fact that any floating substance thrown under the shelving rock, is immediately brought outward to the opposite bank. There is no visible outlet to the waters except that the margin is little else than rock with innumerable fissures traversing it in every direction, and through which, though with no apparent current at the surface, the water undoubtedly escapes.

The surface of the rocks at the edge of the water, and for several inches above and below, is coated thick with a substance closely resembling sulphur, but without its properties, being uninflammable. Not a living fish is to be seen in its waters, but digging into and breaking up a kind of soft scoria or volcanic mud nearly hardened into stone, that makes a portion of the bank, great numbers of fish, from two to six inches in length are found embedded therein, and perfectly petrified.