

MISCELLANEOUS SUMMARY.

LARGE LOCOMOTIVE.—The largest locomotive in the United States, if not in the world, has just been built for the Philadelphia and Reading Railroad Company. It has twelve driving wheels 43 inches in diameter. The cylinder is 20 inches in diameter, and the stroke of piston 26 inches. The fire boxes 10 feet 8 inches long, and 43½ inches wide; inside diameter 48 inches. The weight of the locomotive when in running order is 106,320 pounds. This locomotive is intended for a pushing one, to force the heavy coal trains up the grades of the road. It was designed by Mr. James Millholland, formerly of Baltimore, and its construction superintended by him.—*Pittsburgh Chronicle*.

[That's a curious fire-box.—Eds.]

NOTHING LIKE LEATHER.—Trimming for ladies' dresses and cloaks, made of leather, is now offered. It is of all widths, cut into patterns from the prepared calf-skin, in its natural color. It is novel and durable. Leather belts, dyed in all colors, ornamented with steel in the similitude of screw heads, &c., with bright steel buckles and mounting, are much in vogue. They are not durable, and unless in the natural russet soon lose their bloom. Bonnets of leather will be shown at the next milliners' opening. The material is precisely like that used for binding books.

[The ladies then are, in bookbinders' phrase, to be "half calf."]

A BIG STICK OF TIMBER.—A few days since a splendid stick of white oak timber was landed at the Globe Works, Boston. It was one of the largest ever brought into Boston. It measured sixty-six feet in length, and was hewn up square, on the average, twenty-eight by twenty-nine inches. It contained three hundred and seventy cubic feet, equal to four thousand four hundred and forty feet, broad measure, or nine and a quarter tons. Its actual weight would not be less than twelve tons. It was brought from the State of New York.

READING WHILST TRAVELING.—The attention of medical men, both in England and France, has of late been drawn to the ill effects resulting from the habit of reading while traveling by rail. Dr. Legendre de Saulle remarks that reading thus is extremely fatiguing to the eyes, and that this fatigue induces headache, and often pains round the eyes, with a slight congestion of the retina, which, when the habit has become inveterate and the subject is advanced in age, may in the end determine a real congestion of the brain.

SUBSTITUTE FOR PORT WINE.—In consequence of the impossibility of procuring pure port wine of the trade formerly issued to the army, an article of Tarragona wine has been adopted for issue instead. This wine is light, dry, and astringent, and is the pure juice of the grape; it is purchased by the Medical Department in bond, and bottled at medical purveying establishments.

HARD UP.—The town of Selma, Ala., had but one male in the place who was competent to act as engineer of their gas works. He was conscripted by the rebel government, and the people of Selma are consequently without light. The people have sent a petition to Richmond for the release of the conscript.

PHOTOGRAPHS OF THE MOON.—Dr. Henry Draper, of this city, has taken a photograph of the moon nearly three feet in diameter, made under a power of three hundred and twenty in the telescope. It is the largest that has ever been taken.

CHEAP COAL GAS.—In the city of Liverpool the price of gas has been reduced to about 86 cents per 1,000 cubic feet. It is also stated that this price pays a fair profit to the stockholders.

The milk-condensing works in Winsted are now ready to commence operations. They bought six tons of crushed sugar, to begin with, at only sixteen cents a pound.

The marriage ring of Martin Luther has come into the possession of a Berlin artisan. The Royal Museum will buy it. There appears to be no doubt of the relic being genuine.

An exchange says that a church in Prussia, holding one thousand persons, has been constructed entirely of statues and all—of *papier mache*.

PERPETUAL MOTION.—The Kingston *British American* says Mr. C. Carruthers, a mechanic of the Grand Trunk Railway, has, after ten years of thought and labor, discovered the principle of perpetual motion. The model is constructed of eight levers, and each of these levers has a weight attached to it. Seven of these weights are descending while one is ascending. It stands to reason that if we have a weight to lift one hundred pounds, with a lever six feet long, and if you place the fulcrum two feet from the end of the lever, we have four feet of leverage, and a weight fifty pounds will balance the lever.

[Just so! that exactly balances the whole machine, so that it won't run at all for any length of time. Mr. Carruthers has lost ten years of his life in prosecuting a useless idea. A perpetual motion machine as we have repeatedly shown in this journal is the Will-o'-the-Wisp of invention.—Eds.]

THE PHOTOGRAPHIC FIXING AGENT.—To fix photographic pictures, a solution of the hyposulphite of soda has been the common agent employed. In this the picture is treated, and is thus prevented from changing. The *Photographic News* asserts that the days of this agent in photography are numbered, and that sulphocyanide of ammonium will take its place as a superior agent, by the use of which a faded positive picture will be unknown. The original source of the cyanide of ammonium is the thick tarry liquid remaining after the separation of the free ammonia from gas liquor: this has long been known to contain large quantities of sulphocyanide of ammonium, but hitherto all attempts to separate it from the impurities which accompany it have failed.

IN THE DARK.—We have received a communication signed E. W., purporting to express the views of the mechanics and civil engineers of Buffalo on "this subject." We have read the document very carefully, but cannot find out what "this subject" means, as the writer goes into so many different ones in his communication that he is like a man asking twenty questions in one breath. We should be very happy to answer the mechanics of Buffalo, or those of other places, any reasonable questions they may propound; but before we give any reply to their queries it is somewhat essential for us to know what they desire to be informed upon.

A NEW KIND OF MACHINERY.—An exchange says that a new machine has been invented for converting parsnips into horse-radish. The inventor is on his way to Washington to procure a patent.

[If some one would go to work and build a machine to convert some of the parsnips and turnips out of horseradish prepared for market they would do a good thing. Verily wonders will never cease.—Eds.]

The press used for printing the *New Haven Register* is driven by water power, from Lake Whitney, instead of steam, as formerly. An inch pipe and a turbine wheel is sufficient for the purpose.

The cup (made out of a cocoa nut) and chest of Alexander Selkirk (Robinson Crusoe) are being exhibited in London.

Account of a Great Balloon.

M. Nadar, the distinguished French artist and photographer, lately made an ascent from the Champs de Mars, Paris, in the largest balloon that ever went upon an aerial voyage. Over 22,000 yards of silk were employed in its manufacture, at a cost of 160,000 francs for the fabric. When the balloon was inflated its height was only fourteen yards lower than the tower of Notre Dame. After one or two unsuccessful attempts, and a consequent delay of an hour and a half, the balloon finally rose slowly, and floated majestically into the air in a northeasterly direction from Paris. Preparations had been made for a journey of four days, but in the course of two hours from the time of starting some disarrangement of the valves, or breakage of the cords, necessitated a descent, which, after some moving incidents, was effected in the environs of Meaux, with no greater material injuries to its crew than a few cuts and bruises. Among the aeronauts, whose number amounted to fourteen, were two ladies, the wife of the proprietor and the Princess de la Tour d'Auvergne, wife of the present Ambassador of France to Rome.

Gas Meters.

At a recent meeting of the Scottish Association of Gas Managers, held in Edinburgh, Mr. Robb, of Haddington, gave a summary of his experience in the use of them during the last eight or ten years. He said he was rather partial to the dry meter, and anxious that it should succeed in becoming the meter; but he must say that, in its present and previous working, he had found great variation in the registration. Those kept constantly at work he found to give the most satisfactory results; and, contrary to general belief, they were liable to derangement by frost. During the severe winter of 1860-1, one meter (amongst others which were stopped) he examined, and found to contain a considerable quantity of hoar-frost, resulting from the frozen moisture in the gas, and to be otherwise so acted upon as to affect its working.

Mr. Whimster, of Perth, bore a similar testimony. He accounted for dry meters—which were used in shops, offices, warehouses, &c., and standing idle during part of the summer—not working so well as those kept constantly in use, from the fact that dirt and tarry matters deposited on the rubbing surfaces of the valve, from the want of gas passing, and thereby keeping it moist, get hardened; and, on the meter being again set to work, the valve was consequently prevented from fitting so closely to its seat as was required for correct measurement—a thin sheet of gas being allowed to pass without being measured. He also found that the material of which the measuring chambers were made, got hard, and on starting did not distend so freely as when they left the maker, and consequently registered quick. He had tested several dry meters which had been at work for some time, and found them to vary from 25 to 30 per cent slow, and as much fast, which he believed to result from the explanation given.

How the "Leviathan" was Captured.

Sometimes a man shows his smartness by being remarkably stupid; the following case of the engineer of the tug boat *Leviathan* is one in point:—The rebels near New Orleans recently boarded the tug boat *Leviathan* and carried her out to sea, to make her a privateer. She was captured by the blockader *De Soto*, and the wonder was how a boat as the former could be overtaken by the latter, but this is explained by recent information. The engineer of the *Leviathan* was kept by the rebels in charge of the engines, and, though threatened with death if he failed in his work, he managed to render the machinery comparatively worthless, first, by flooding the boilers with water, then bursting an important pipe, and then turning the surplus water into the hold of the vessel, his idea being to sink the hull so that the fires would be put out. It was these ingenious attempts to circumvent the privateers that enabled the *De Soto* to come up; but for this, the *Leviathan* would probably have escaped to have become the scourge of the Gulf.

The Petroleum Trade.

The *Oil City Register* states that in the month of October, one year ago, the estimated amount of oil on hand there was from 75,000 to 80,000 barrels. Upon Oil Creek the amount of oil in tanks was variously estimated at from 100,000 to 150,000 barrels. At the present time the total amount on hand at that point is about 25,000 barrels; in tanks on the Creek, 40,000 barrels. At about the same time last year the amount of crude oil in tanks at Pittsburgh was estimated at from 75,000 to 100,000 barrels. The estimated amount on hand there at the present time is from 15,000 to 20,000 barrels. In New York city, last October, the amount of oil on hand was estimated at from 75,000 to 100,000 barrels. The estimated amount on hand at the present time is estimated at from 140,000 to 151,000 barrels. The difference between the amount on hand at the present time and at the same time last year is from 120,000 to 150,000 barrels. The daily product of the wells on Oil Creek now is about the same as that of last year, viz: about 6,000 barrels; and the price is \$6 25, and \$6 50 per barrel in Oil City.

ANTIMONY has been found at South Ham, near Quebec. The discovery is considered of great value and importance.