

Scientific Museum.

Scientific Memoranda.

The telegraph wire, which was laid down so successfully between England and France, and which was described in the Scientific American of last week, has been broken on the French coast, about 200 yards from the shore. The lead tube was found to be too soft for the rolling of the surge. This evil will no doubt be obviated—we live and learn.

Dr. Darling, of New York, is still astonishing the Glasgowians, as we learn by the Daily Mail of the 6th September; he makes more noise there than he did here. His Biological experiments with some of the people of that city, have excited great surprise. He made one lady do just what he liked—such as sitting, sleeping, walking, talking, snuffing and sneezing.

Mr. Lassell, of Stanfield, near Liverpool, has discovered a second satellite of the planet Neptune. The discovery was made with a telescope of twenty feet focal length, which was made by himself, and is said to be the most powerful instrument in Great Britain.

A most interesting discovery is reported to have been made in Russia, between Dorpat and Norva, of a combustible as carboniferous and calcareous as coal. It is of a yellowish brown color, with white spots, and is the subject of much speculation, being said to be of a much earlier geological period than any known coal field. If this discovery is true, it will dispel some poetry of the Geologists. It is our opinion that some valuable discoveries will yet be made of a new fuel in the northern parts of this continent. It cannot be that nature has left that cold region destitute of fuel.

A huge bed-plate for the steamship Humbolt was cast last week at the Novelty Works of Messrs. Stillman, Allen & Co., this city. Forty tons of metal were used.

Part of the Turkish Mediterranean squadron are about to sail for England, and part for the United States—the latter being the longest cruise on record of ships belonging to the Sultan.

An experimental trip was recently made on the Grand Canal, Dublin, to illustrate the advantages of the application of steam as a propelling power, by the agency of the screw, to boats and vessels engaged in inland navigation, and the result of which seemed highly satisfactory to numerous scientific persons and others who attended to witness it. Almost all the coasting vessels in Britain are arming themselves with the auxiliary screw.

Dr. Dick, of Scotland, at the Peace Congress in Germany, paid a high compliment to the liberality of a publishing house in Philadelphia. He thanked America for her kindness to him.

That immense apron of rock, being a flat sheet about thirty feet wide by one hundred and fifty feet long, over which the water of the falls of St. Anthony lately poured, next to the western shore, fell down not long since under the weight of the flood.

Idiocy—Opium.

Dr. Enos Stevens Examining Agent for the Massachusetts Commissioners for the prevention and cure of idiocy has a manuscript work wherein occurs the following;—

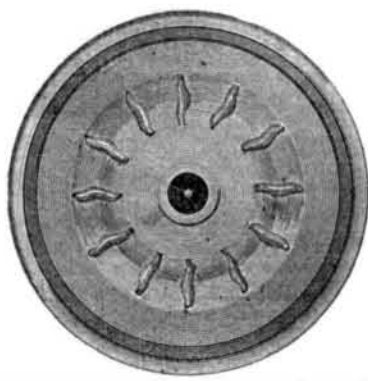
"At Cambridge Poor House, there are three well formed and strong brothers, whose names are Joseph Cox, 23 years old, George Cox, 20, and William Cox, 18. These are all the children their mother had. Their father was a respectable mechanic, and has a very intelligent child by a second wife. The mother of these idiotic boys was a most devotedly benevolent woman, who often took narcotic drugs, and went out whole days and nights to visit and assist the sick among her neighbors; leaving her own children all put asleep by laudanum, (which is wine and opium.) Every day when they cried, and every time she wished to go out, she put them all asleep with laudanum. At length, their whole organization assimilated to such a state of body and mind, and they have grown up to the size of manhood, with

the avenues of their brains practically closed by drugs; so that they have merely infantile powers of mind, and strength of bodies."

* * "Among the 240 idiots described by the Commissioners to the Legislature of Massachusetts, seven seem to have been made so by their mothers trying to procure abortion by using very powerful drugs. Although these unborn children were not thus quite killed, yet they were irrecoverably stupified and mal-formed to the lowest degrees of both mental and animal idiocy and weakness. Indeed, these children remain glaring, crawling and howling, personifications of crime, misery and long contorted corruption and death. In some of these cases, the health of the women was ruined for the remainder of their lives, and they ever after continued to bring forth idiots, mal-formations and invalids.

No woman can be devotedly benevolent who gives her children laudanum to keep them quiet."

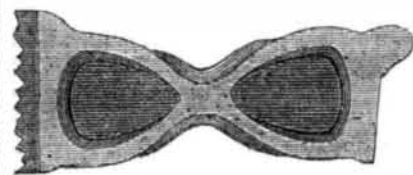
Van Kuran's Patent Railroad Car Wheel.
Fig. 1.



This wheel is the invention of Isaac Van Kuran, Esq., engineer, formerly Superintendent of the Railroad Machine Shop of the Auburn and Rochester Railroad, at Rochester, but who is now residing in Boston. It was patented on the first day of May, 1849, and since that time its success has been proverbial, and its adoption by various railroad companies is eminently gratifying, both as a matter of endorsement to the goodness of the wheel, and the profitableness of its manufacture.

Figure 1 is a front side view of the wheel, and figure 2 is a vertical transverse section through the centre of the same. These engravings will show, to all those engaged in the use and construction of car-wheels, the form and principle of this one. The nature of the improvement is in casting the wheel with a rim of the form of a semi-ellipsis, and of an oblate spheroidal form at the hub part, with braces on either side, in such a manner as to strengthen the same, and remove all danger of breakage from cooling, and cause the

Fig. 2.



pressure and strain exerted on the hub to be more equally divided over the several parts of the wheel, than in the ordinary form of the car wheels now in use. The hub is cast solid with the other parts of the wheel; from the hub the leaves are oblate spheroidal formed shells, with openings on the side, to take out the core. The rim of the wheel is chilled, and resembles, in cross section, the form of a semi-ellipsis, and has a solid body of metal between the edge and the hollow part. The wheel is held to be light and strong, owing to its peculiar form and braces. The following is Mr. Van Kuran's claim:—

"I claim, as my invention, casting railroad car wheels with a rim of the form of a semi-ellipsis, and of an oblate spheroidal near the centre, the hub being cast solid with the same, with braces of the form of cima-reversa and cima-rectas formed in the valley between the rim and oblate spheroidal shell surrounding the hub, arranged in contrary directions on either side, in the manner and for the purpose herein set forth."

These wheels are now manufactured at the

Boston Locomotive Works, 380 Harrison Avenue, Boston, superior to any cast wheels now in use, and can be furnished in any quantity.

More information may be obtained by letter addressed to Mr Van Kuran, or to David F. Childs, Prest.

How to Lengthen a Leg.

A recent number of the Medical Gazette gives the details of a case of great interest, an un-united fracture of the tibia of twenty-four years' standing successfully treated by Mr. Tamplin, the surgeon of the Orthopedic Hospital. At the age of fourteen months a young lady received an injury to one of her legs, by slipping between the bars of a garden seat. The full extent of the injury was not discovered till some time after, when most painful symptoms disclosed themselves. Surgeons of eminence were consulted, but no effectual relief was obtained; amputation was recommended; and when Mr. Tamplin was first consulted, in 1849, the leg was two inches and a half shorter than the other. The system of extension, which had been so successfully applied at the Orthopedic Hospital to other cases, was applied by Mr. Tamplin in this case, and it became necessary to divide the tendo-achillis. A steady continued pressure was kept up on the tibia above the point of fracture, and counter-pressure at the back of the leg just above the ankle joint. The results of this treatment were most satisfactory. The leg became gradually elongated and the patient was, in April last, in the presence of Mr. Travers and Mr. Lawrence, enabled to stand and walk without aid, and without a sign of motion at the point of the fracture.

Trees of the South.

Texas produces the pecan; Louisiana the cypress, which is the tree of the State; Mississippi the magnolia; Florida the live oak; Georgia and North Carolina the yellow pine; South Carolina the palmetto, though we fear the structure of this beautiful tree would be impracticable for useful purposes. This is the finest specimen of the palm family indigenous to the United States.

This palm possesses a great and, to this country, an increasing value. It is the only tree produced in our forests which is not attacked by the *toretonavalis*, or ship worm, and as it is incorruptible in salt water, its value for submarine construction is almost incalculable.

Its leaves can be employed in the manufacture of hats, baskets, mats and many other purposes of domestic economy; the "cabbage," composed of the unexpanded embryonic leaves, may be classed among the most delicious vegetables produced on our tables. It is, however, a wasteful luxury, as the tree always perishes when deprived of this part of its foliage.

Grows along the sea coast of Carolina and Georgia, confined to the neighborhood of salt water; preferring damp, rich soils. Flowers in June—July.

An Insect Scourge.

Galigiani's Messenger says:—One of the finest valleys of Savoy has just fallen under a devastating scourge. A host of insects, which are confounded by the people with the locusts, alighted lately in the valley of the Isere, near Saint Pierre d'Albigni. These herbivorous insects are a thousand times more destructive than the locust; they are crickets (*acidium*.) Their presence has been already marked by deplorable ravages in the crops of maize, which were at first remarkably promising. They increase and multiply in a most frightful manner; each of the females deposits in little holes in the ground several thousand eggs, which are soon hatched. When they have cleared one spot of every vestige of herbage, they proceed to another, and, unless efficacious measures are adopted, the whole of Savoy will be devastated. These insects are as much to be dreaded when dead as when living: for, if killed by a cold rain, their bodies exhale an infectious miasma, which caused epidemical diseases.

Caving in of Mines.

The roof of the coal mines at Pictou, Nova Scotia, have fallen in, to the extent of some fourteen acres.

Kanawha, Va., Salines.

There are about 150 wells bored for salt water at the above place; they vary from 4 to 4 inches at the upper section, of from one to 200 feet; and then from 5 to 8 inches in diameter, from 500 to 1800 feet deep. There are several gas wells, one of which furnishes water for about 250 bushels of salt per day; it stands at 7° by the salt-ometer, graduated at 24, and it gives out gas enough to boil twice that amount into salt; and it has force enough, as it issues from the well, to spout the water from 40 to 100 feet high.

We are indebted to Hons. J. M. Berrien, Lewis Cass, W. H. Seward, A. Venable and C. H. Peaslee, for Congressional favors.

NEW PROSPECTUS (OF THE)

SCIENTIFIC AMERICAN.

TO MECHANICS, INVENTORS, AND MANUFACTURERS.

The Publishers of the SCIENTIFIC AMERICAN respectfully give notice that the SIXTH VOLUME of this valuable journal, commenced on the 21st of September, offering a favorable opportunity for all to subscribe who take an interest in the progress and development of the Mechanics' Arts and Manufactures of our country. The character of the SCIENTIFIC AMERICAN is too well known throughout the country to require a detailed account of the various subjects discussed through its columns.

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