

Scientific American.

NEW YORK, MAY 6, 1854.

Scientific Imaginings.

Man is a speculative being. Like the ever-throbbing ocean, his mind "is all unrest." Pleased with his own imaginings, he becomes devotional towards them, though they may be as attenuated as the web of the gossamer, or baseless and incongruous as the dream of the idiot. The best and wisest of men have their day-dreams, for all mankind are subject to vanity. This is the reason why so many strange and shadowless theories have been propagated by the learned and the unlearned, in every age of the world's history, and why the present age is still prolific with fanciful hypotheses in literature and philosophy. Indeed, the present age is perhaps more speculative than any which has preceded it. Whenever a new phenomenon is observed, barrels of ink are consumed by crowds of philosophers rushing forward to explain it, each positive that he is right and all the others wrong. No sooner was the pendulum experiment of Foucault published to the world than numbers dashed forward to use it in explanation of other phenomena than the rotation of the earth on its axis, such as the cause of the Gulf Stream, the tides, &c. As there are various kinds of moving bodies in the universe—suns, planets, satellites, comets, and meteors, so there are various kinds of philosophers in the world; some are as steady, true, and bright as our sun, while others are as eccentric in their speculations as comets in their orbits. Like these latter in their course towards the sun, they gallop forward towards some great subject, with a vehemence that is truly alarming, when lo! all at once, they whisk round, "leaving truth untouched," and disappear perhaps forever.

The phenomena of light has engaged the attention of the greatest philosophers in every age, and it is still a subject involved in mystery. Even as late as Wednesday last week Dr. Hare, one of the oldest and most scientific men in our country, at the meeting of the American Association for the Advancement of Science, declared that a reform was needed in the whole doctrine of the undulatory theory. It was an ancient belief of the Chaldeans, that space was filled with a pure ethereal fluid; and Descartes applying this to explain the phenomena of light, devised the undulatory theory, which is comprised in the following short sentence:—"Light is the effect of the undulations of a subtle ether pervading space." It has not yet been fully proven that such an ether does exist, nevertheless there are philosophers who, to their own satisfaction, have from this very ether, demonstrated the cause of the sun's luminosity, and all the storms that take place on our planet. A book is now before us recently published by D. Appleton & Co., this city, the author of which is T. Bassnet, which sets forth a new theory of storms, founded on the supposition that space is pervaded with a subtle ether, which he asserts possesses inertia, but not gravity—an imponderable. According to his theory, this matter not having the quality of gravity or attraction—although his book is a considerable volume of 245 pages, and very well written—we have not been able to learn from it how such effects can be produced by such a material. A pamphlet by Daniel Vaughan, of Cincinnati, being an epitome of three lectures which he delivered in that city, and entitled, "Destiny of the Solar System," attempts to account for the luminosity of the sun, &c., by this same subtle ether. But while Bassnet divests his ether of gravity, calls this "the pivot on which his theory turns," and says, (page 22) "this medium is not affected by gravity," D. Vaughan, on the other hand, accounts for solar and stellar light by this self-same fluid possessing gravity. On page 4 he says, "In obedience to the law of gravity, this luciferous fluid accumulates about the earth and the celestial bodies, but it is only on the largest spheres that it receives a sufficient degree of compression to call forth its luminous properties." Thus it is that "Doctors do differ." We confess however, that we are somewhat

pleased with this theory of solar light, as conveyed by its author in the following language: "While the sun's attraction collects this medium from space, and calls forth his effulgence, his rotation causes its continual influx to his poles, while it escapes at his equatorial regions, thus bringing fresh material to his surface. In this manner we may account for the perpetual brilliancy of the sun, and which, in contradiction to every known principle of chemistry, is capable of furnishing an unlimited amount of light without suffering any waste or any loss of its illuminating power." That is, solar light is produced by the powerful compression of a subtle ether, and no decomposition or change in its nature takes place in the production of the light. The reasoning of this philosopher, however, is not *a priori*, for as the sun's rays have calorific, chemical, and luminous qualities, he has no basis for asserting that by the simple compression of any matter whatever, all these phenomena can be produced without a change in the nature of that matter, and if a change occur then it upsets his whole theory. Mr. Vaughan has presented many very ingenious views on different subjects, but he is a very careless writer, as we see by an article of his in the "Great West," of the 22nd ult., (a paper published at Cincinnati.) It is on the composition of the rings of Saturn; it contains a number of incorrect statements, and is altogether unreliable. In that article he asserts that the "Scientific American" had put forth a theory of the tides, designed to supercede that of Newton—a statement as ridiculous and as far from the truth as some of his scientific speculations. Some may regret that ingenious-minded men so often mistake rhapsodies—imaginings—for correct scientific theories, but we do not. With Bacon, we believe that a false theory is better than no theory, for then it is open to examination, and sooner or later truth will be separated from error.

The "Ericsson" Sunk.

The Hot Air Ship "Ericsson," while making a short trip down the Bay on Thursday last, was struck by a squall, careened over and sunk, when moving opposite to the Glass House Dock, Jersey City. The day had been very calm and beautiful, and well suited for a favorable display. She must have drawn very little water, or she would not have been so easily laid upon her side while the water rushed through her starboard port, in such quantities as to sink her,—a vessel of 2200 tons burden—in 48 feet of water at a distance of 300 feet from the shore. All that were on board escaped, among which were a number of invited guests—ladies and gentlemen. We greatly regret this accident, for as that had been heretofore said by us respecting this vessel, had been fully verified, and we were waiting with no small amount of impatience for the testing of her new hot-air engines, which we have also stated, in opposition to the views of many professedly scientific men would prove as great failures as the old ones, because the element—hot-air—is in its very nature so far inferior to steam, as a propelling agent. We sincerely hope, however, that this ship will be raised soon, (the damage cannot be much) and the "Ericsson," as has been so often promised for her, be permitted to make a voyage across the Atlantic. Some of our daily papers no doubt are greatly pleased at this accident, as it will leave them some room for saving their credit; it is different with us. We always wished success to Capt. Ericsson and the owners of this vessel, and could have sincerely prayed for the achievement sought, were we not convinced that this was impossible. What we have said about it was dictated by duty to ourselves and the community.

Means for Saving Life in Shipwrecks.

The late terrific shipwrecks on the Jersey shores, by which so many lost their lives, affords a severe commentary on the miserly means provided by our government for such exigencies. The ship "Powhattan," by which two hundred and fifty human beings perished, was so near the shore, in broad daylight, that the Captain could converse through his speaking trumpet with those on shore, and that before a single life was lost, but there was not a life-

boat nor means of saving life at hand, nor within six miles of the wreck. This was disgraceful to our government. Much money is talked away in Congress every year, and a great deal more is voted away for useless purposes.—It would be more to the credit of the members of Congress from New York, if they attended more to the interests of their country, than to partisan squabbles. Commerce rules the world; a nation without Commerce, is a nation without strength and influence. The reason why the United States is looked upon now as being such a powerful Empire, is because she is a great Commercial nation. All that pertains to the safety of ships and their crews, tends to foster and encourage Commerce. In view of this fact, it is the bounden duty of our government to provide better means for the safety of life in cases of shipwreck, all along our coasts, especially around New York, which has now become the great shipping mart of the world.

Patent Clothes Pin.



This engraving is a perspective view of the clothes pin—with its jaws closed—for which a patent was granted to E. S. Haskins, of Boston, on the 14th of last March (1854). The common clothes pin in general use consists of two legs, united at the top to a short body, and is from its construction liable to fall from the clothes line to the ground, leaving the clothes to be blown down and soiled.

To remedy this inconvenience a pin was contrived, consisting of two pieces united together in the middle by a wire hinge. Between two contiguous ends of these pieces was placed a wire spring which forced them apart, and at the same time closed the opposite ends upon each other, which served as jaws to embrace the line. This formed a very effective clothes pin for a time, but it was found that the metallic spring was liable to be forced out of place, while the wire which formed the hinge being necessarily small was soon broken, when the two halves of the pin were thrown apart by the force of the spring which closed the jaws.

To avoid all these objections this improved clothes pin has been contrived, in which there is neither hinge nor metallic spring, the spring made use of to close the jaws being so applied as to hold the two halves of the spring at all times together.

A and B are the two halves of the clothes pin, the former having at its center the barrel or circular projection, C, which plays in the corresponding groove, D, of the piece, B; *e* are grooves in the jaw, *f*, for the purpose of receiving and holding the line when the clothes pin is used; *g* is a band of india rubber which is passed over the ends of the jaws and is received into notches made for the purpose. This band forms a strong spring for the purpose of closing the jaws. When used the ends, *a a*, are pressed together by the thumb and finger, and the pin is then placed upon the line, the band, *g*, closing the jaws and holding securely whatever is between them.

Amongst the advantages offered by this clothes pin over any other heretofore in use, may be enumerated, economy of construction, simplicity and durability; the india rubber itself being so placed as to hold the other parts securely together, while the spring in those heretofore constructed tended constantly to throw the parts asunder.

More information may be obtained by letter addressed to the patentee, No. 20 Broad street, Boston.

Cocoanuts, Tallow, and Lard.

We stated two weeks ago that by the war between England and Russia, a fine field was now opened for any spare tallow which our dealers in such stuff might have on hand. It seems that upon the certainty of such a field for extra soap grease, the price of that article in the market has gone up. It is not likely, however, that we will be able to fill up the deficit in the English field, although it is hard to

tell what Americans can do in anything, when put to the test—whether it be in sailing yachts, picking locks, making reaping machines, or raising tallow. Lard is nearly as much employed for making fine soap as tallow or suet, but it would take 4,000,000 hogs to produce lard enough to supply the quantity of tallow which has been cut off this year from being exported by Russia. Our merchants, however, can find plenty of room for trading in the oil line, by carrying palm oil from Africa; and to us it appears that a new trade for our people may be opened for coconut oil. This oil is extensively used for soap making in Germany, but we believe that its use for such purposes is unknown among us. Being so near to the coconut countries, our countrymen have advantages for securing a trade in this oil, over Europeans. The riches of the valley of the Amazon, we hope, will soon be opened up to our people, and we are glad to see that Lieut. Maury is urging this question with that discreet enthusiasm for which he is signalized. What may be its capacities in the production of oil or tallow, we do not know, but we suppose they must be good. We therefore hope that the free navigation of this great valley will soon be opened to our countrymen.

The Deaf and Dumb.

A copy of the Report of the New York State Institution for the instruction of the deaf and dumb, for 1853, received from the President, Harvey P. Peet, L.L.D., has afforded us great satisfaction by the cheering account of its great and continued prosperity. There are now three hundred and twenty-two pupils in this Institution, 192 being beneficiaries of the State. We can testify personally to the astonishing power exercised in this institution in molding and elevating the character of its pupils.

White Straw Paper.

The "Dollar Newspaper" like the "Philadelphia Ledger," comes to us this week printed on paper made from straw, by Mellier's process which is advertised on another page, ("Scientific American.") This paper is really excellent and beautiful. It is much stronger than paper made from rags; it is firm and hard like linen paper, and is as white as any paper printed in the country. We are happy thus to herald the complete success of white printing paper made from straw.

Webster's Dictionary.

We understand that the fame of this great Dictionary, (published by Messrs. G. & C. Merriam, Springfield, Mass.,) has been employed in a very disreputable manner in London, by selling "Worcester's Dictionary" as Webster's. While this is anything but right, a higher compliment could not be paid to the merits of the latter work.

Sad Accident at a Fire.

A fire took place in Broadway, opposite the City Hall Park, on the night of Tuesday, the 25th ult., and while a number of firemen were in the lower story, a huge safe fell from an upper story, and a wall fell in, whereby ten were killed and a great number severely injured. This is the most serious accident which has ever befallen the firemen of this City.

New Steamboats.

New steamboats to the number of forty-three, are now in process of construction in the yards of Pittsburg and its vicinity, being, as we learn from the "Commercial Journal," a larger number than at any former period. Of the whole forty-three only three are side-wheeled. Of the stern-wheel boats, many are of large size, from 800 to 1000 tons burden.

Hemp.

This article is attracting considerable attention, not only in our own, but in all the Eastern and Western markets. Prices, too, are higher than they have been known for years, and still constantly going up. Yesterday we noticed sales of undressed in this market at \$148 to \$152, and hackled has sold as high as \$205 per tun. The demand is chiefly, if not entirely, for export to the Ohio river and the Eastern cities. Several hundred bales were shipped for New York, via Wheeling and Pittsburg, at the rate of 50c. per 100 pounds freight.—[St. Louis Intelligencer.]