



NEW YORK, DECEMBER 26, 1856.

Popular Absurdities.

We had proposed to publish in our last number, some remarks on the theory of some of our popular professors; but they were excluded from that number by a press of other matter.

We commence with Professor Olmsted's remarks on "the line of swiftest descent." We gave an illustration in No. 11, of a curious fact with regard to the descent of a ball on an inclined curve, or arc of a circle, showing that the time of its descent from any point in the curve to the bottom would be the same; but we find in Olmsted's Philosophy an article attributing this property to the cycloid instead of the regular curve or arc. After defining the cycloid as "the curve described by any point in the rim of a coach wheel, while passing from the ground to the ground again," (which is neither more or less than the longitudinal half of an ellipse, the extremities of which are parallel) he says: "It is a remarkable property of this curve that the time occupied by a body descending from any height above the lowest point is all equal to each other," but we cannot imagine any position in which a cycloid can possibly be placed so that a ball could descend (rolling) thereon with any manner of velocity.

Professor Mapes, in a recent address, improves on this error concerning the cycloid, and avers that "there is no figure in which a body can be moved with so much velocity, and such regularity of speed, not even the straight line." (!) and adds that the eagle has discovered this, and that when he pounces on his prey, he describes the figure of a cycloid. We should feel curious to know what position of the cycloid the eagle describes in his pouncing descent; but should not readily take the eagle's authority for a point of theory in direct opposition to our own observation of the laws of mechanical motion. Neither should we abandon positive evidence to adopt the fables theory with regard to resistance of fluids, although on this subject Professor M. says "there is a form called the *solid of least resistance* which mathematicians studied many years to discover; and when they had discovered it, they found they had the form of a fish's head." It was lucky for those "mathematicians" that they were not our scholars, for we should have pulled their ears for their stupidity before they were ten years old, if they could not see that a circular revolving spindle (formerly called elliptic spindle) would encounter less than half the resistance, that would the fish's head figure. In the same discourse it is remarked that a bird "has the power of forcing air into the hollow parts of the body, and thus assist his flight," but we cannot see how a body is rendered buoyant by having a quantity of the same fluid in which it floats, stowed away in the interior.

But to return to Olmsted's Philosophy. On the subject of the resistance of fluids, it is stated that when the velocity becomes very great, as that of a cannon ball, "the resistance increases in a much higher ratio than the square of the velocity?" We must be permitted to consider this theory as a gross absurdity until we see some reasons or illustrations in support thereof. It is well known that the velocity of the air, when starting from a state of rest to fill a vacuum, is limited by its own inertia, and hence some have supposed that a vacuum generally follows a cannon ball; but this is not the fact, because a quantity of air, having by its elasticity overcome its inertia, follows in the wake of the ball, keeping in constant contact. And even if a vacuum were produced, the resistance could not be increased by acceleration beyond the square of the velocity, on any established or known principles.

Again, on the subject of the escape of water from a reservoir through an orifice, it is stated that "it has been found by experiment that a vessel of tin with a smooth hole formed in its bottom, did not discharge water as rapid

ly as another containing the same weight of water, and an orifice of the same dimensions, to which a short pipe was applied." No reasons are given for this phenomena, and we sometimes find it difficult to believe a simple assertion, without the appearance of reason. In this case, however, we can understand that if the inserted tube projects downward, the water in passing through the tube acquires additional velocity by its own unimpeded gravity, and on the principle of suction draws the water from the reservoir with the same velocity that it would have had without the tube, if the depth of water in the vessel had been equal to the length of the tube in addition to the supposed depth. But the escape of the water is not otherwise facilitated by a tube.

(To be continued.)

Editorial Ability.

Newspaper writing has grown to be an art of itself. Many a literary man who thought because of "his greater incline the less," every author's *ex-officio* qualification, as an editor, has sunk in the rear place of the press, after some smart writings had shown his bookish talent and his inability to deal with facts. Others who could pour forth volumes, have failed, because they could not cope with hydraulic pressure, or prompt selection of salient points needed for the space and rapid comments of the journal. Take the best papers of London or Paris, different as the circumstances of the case may be, and you must allow that it is not every body that could seize the moral spirit of passing history. The same may be said, with equal justice, of the American press. People of some little fancy they can edit a newspaper, if they can do nothing else; but they essentially find their mistake. Not only is intellect, but a knowledge of the world, miscellaneous information, tact, industry, rapidity of thought, a nervous style, and a capacity at once to catch the strong and weak points of every subject, are required for a good editor.—*Eng. pap.*

The Randolph Slaves.

We mentioned some months since that a large number of colored people, formerly the slaves of John Randolph, had passed through Cincinnati, on their way to Mercer County, Ohio, where land, provisions, and farming utensils had been prepared for them; but we did not mention that on their arrival on their own land, the people of Mercer Co., even those who had sold them the land &c. raised a mob and drove them off, and they were constrained to seek unobtrusive service among the more friendly white families in different parts of the state. The abolition papers are now comforting themselves by turning the apparently adverse circumstances to good fortune, on the ground that the negroes are acquiring a course of useful instruction in agricultural pursuits of which they were entirely ignorant (having been accustomed to raising tobacco) and which is indispensable to their success in farming for themselves.

The Smithsonian Institute.

The Regents of the Smithsonian fund have performed their business according to the strict rules of aristocracy and adjourned. Every movement on the subject, (as every observing man foresaw,) and the donor should have known would be the case) appears aimed to favor those who are in the favor of the movers. \$30,000 have been voted for a library, and a salary of three thousand dollars per annum for a librarian. The salary of the secretary has been fixed at \$1,500 per annum. This fat office of eleven dollars a day, and not much to do, is expected to be given to Professor Henry. The other offices are to be filled on the same scale; and in this way the community is benefited by the Smithsonian fund.

New Alarm Bell.

A mammoth bell has been brought to this city from Troy and is intended to take the place of the one which now hangs above the City Hall. It was manufactured by Andrew Menely, at West Troy, and weighs 7845 pounds.

Specie Returning.

The steamer Cambria brought on from England one hundred and eighteen thousand, four hundred and thirty dollars in specie.

Enterprise in Wayne, Me.

SCYTHE FACTORY VILLAGE.—This beautiful and picturesque village is situated at the foot of a pond extending two miles southward from Fayette Mills. Here is to be seen the largest Scythe Factory in the world. And here is a true specimen of the results of the skill and enterprise of our own citizens when faithfully applied. Eight years ago the stranger would have seen here two or three old houses, and an old set of mills in which was placed machinery for sawing lumber, grinding and filling cloth. Now in addition to machinery of this kind there are three large buildings for the manufacture of scythes, giving employment to some 100 hands and turning out about 300 dozen scythes per week. About 9000 dozens were finished last year, and this year they hope to make some 15,000 dozens. The work is nearly all done by the aid of machinery. In place of the two or three old houses, there are now about 25 beautiful houses, painted white, not only bearing testimony to the spirit of enterprise, but also to the taste of our citizens. A sample of the scythes made at this factory, was sent to Washington, at the late National Fair, and the diploma was awarded to the manufacturer though other samples from this country, and from England were there in competition. It is worthy of notice that all this has been done by private enterprise, without the aid of chartered rights, or any exemptions from taxation.—The dozen sent to the fair at Washington, marked at the factory price, was found to be two dollars cheaper than an English article of inferior quality, this showing that if the home market did not demand all that are made and even more than it does as yet, we could compete successfully with the English manufacturers in their own markets.—*Maine Cult.*

On the Study of Natural Philosophy.

There is no occupation which so much strengthens and quickens the judgment as the study of natural philosophy. This praise has been bestowed on mathematics, yet a knowledge of abstract mathematics existed with all the absurdities of the dark ages; but a familiarity with natural philosophy, which comprehends mathematics, and gives tangible and pleasing illustrations of the abstract truths, seems incompatible with any gross absurdity. A man whose mental faculties have been sharpened by acquaintance with the exact sciences, and in their combination, and who has been engaged, therefore in the contemplating *real relations*, is more likely to discover truth in other questions, and can defend himself against sophistry of every kind. We cannot have clearer evidence of this, than in the history of the sciences, since the Baconian method of reasoning by induction took the place of the visionary hypotheses of preceding times.—*Dr. Arnott.*

Capital Punishment.

A new argument in favor of capital punishment has been put forth by the Sunday Dispatch; namely, that those who are hung are those who being poor and ignorant were never reached by the clergy had they not fallen under the sentence of death. But when this occurs "human beings whose spiritual welfare had been before entirely lost sight of, suddenly become objects of interest," and they are now visited by the clergy to prepare them for death. Thus it is proved that the salvation of a certain number is secured by hanging them.

An Expensive Wife.

A case was lately decided at the Court of Queens Bench in which a jury refused to make a husband responsible for an extravagant milliner's bill of goods taken by his wife. The bill contained among other things, ten new bonnets, and forty-three pairs of gloves in seven months. Of course they must have a new law, limiting the number of bonnets, gloves, &c. which a lady must be allowed to purchase at any one shop, in a given time.

Marshall's No. 90.

We still retain the opinion that better bargains in under clothing, are given at Marshall's Troy Shirt Depot, No. 90 Chatham street, than at any other shop in this city.—Our readers who make the trial will thank us for this notice.

RAILROAD INTELLIGENCE.

Worcester and Nashua Railroad.

Most of the grading and masonry of this road is put under contract, at rates within the estimates of the engineers, and the contractors agree to take 20 per cent of the amount in the capital stock of the company. The difficulties, which at one time seemed to beset this work, are now all removed, and in the efficient hands in which its management is placed, there can be no doubt of its being pushed forward to a completion in the shortest possible time.

The Stony Brook Branch.

This branch road is to connect the Worcester and Nashua road with Lowell. The Lowell people are striving themselves to build the Stony Brook Branch of this road, which will give us a direct communication with that city. They express a determination to go ahead with it, so that it may be completed as soon as the main road is.

Cape Cod Branch.

It is reported that the stock of this road, — \$100,000,—has been nearly or quite all taken, and everything connected with the enterprise seems to wear a favorable aspect; and we are assured that the work will be completed within the limits prescribed by the charter.

Androscoggin and Kennebec Railroad.

An engineer has been engaged to survey the route from Lewiston to Coocewagon pond, in Monmouth, and that part of the route will be put under contract so as to begin operations early in the spring.

Rattland Railroad.

The President of the Champlain and Connecticut River Railroad advises for proposals for building the road from Bellows Falls to and including the summit at Mount-Holly thirty-four miles, and from Burlington to Brandon, about fifty miles.

New York and Erie Railroad.

All the contracts for building this road from Port Lewis to Binghamton (13 miles) have been taken. The aggregate amount of the contracts is \$1,900,000. This is \$1,000,000 less than the estimates! Twenty-two contractors have taken the whole job, at an average of 42 cents per yard for rock and 10 cents for earth excavation. This is considered a low; but the contractors are said to be responsible men. At this rate \$5,000,000 would complete the road to Dunkirk.

The receipts of the Western railway last week were \$19,000, against \$14,300 for the corresponding week last year.

Taylor's Money Reporter.

This useful, not to say indispensable periodical, partakes largely of the characteristic of the age, that is, improvement. In addition to the ordinary bank note lists, which is revised weekly, it presents beautifully engraved facsimiles of all the gold, silver and copper coin, of all nations with their current value. Published by S. Taylor, 90 Broadway.

Advice.

If any of our young friends are designing to attend the Holiday Balls, we would recommend them to go to one to Messrs. Steele & St. John No. 27 John street, and get measured for a new suit of clothes. We know from personal observation that they excel on fit and style, and for variety of color, every one that gives them a call can satisfy themselves that their assortment is well selected, and very cheap.—See Card in another column.

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