Mechanics' Club.

At the meeting of the Mechanics' Club, on the 11th inst., Mr. S. S. Clark, of Manchester, N. H., exhibited a model of his folding iron shutter, patented in April last, which is also capable of being made to serve as a Venetian blind. The slats are connected by links, so that all turn together, and are adjusted as a blind by a cam at the bottom, or hoisted as a shutter by any suitable apparatus at the side.

Mr. I. S. Clough exhibibited Estlack's water escape, illustrated on page 236 of our present volume.

The question of the practicability of the transatlantic cable being raised, Prof. H. A. Hildreth, of Boston, who had paid much attention to the subject, thought the enterprise would fail, from the want of allowance for the inequalities of the bottom. Instead of three thousand, it would require, he thought, about nine thousand miles of cable, and consequently that this first attempt at laying the cable would fail, from an insufficient supply in one or both ships. The greater resistance to the current due to the presence of sea water instead of air on the outside of the gutta percha envelope, would, he thought, make this length equal to about 27,000 miles of wire suspended in the ordinary manner in the air.

Mr. S. D. Tillman thought, first, That the wire would not be laid down entire; second, That the current could not be made effective through it if it were; and third, That the cable would be abraded off in a short time in crossing ledges of rock near the coast of Ireland. Like all public spirited citizens, he hoped the great effort to join the continents would succeed, but he doubted if it were even possible, far less actually practicable as a commercial operation.

A large portion of the evening was consumed in a discussion relating to who was the originator of the telegraph. This invention, which was enthusiastically termed by one speaker "the greatest and most important in the world," was claimed very earnestly for Dr. Charles T. Jackson, on the strength of his having explained much of the principle to Prof. Morse, and having been applied to at a subsequent period for instructions how to overcome a difficulty. But the question was pretty evidently settled for the ninety-ninth time in favor of Morse as the man who appreciated the importance of the object, applied a practical recording instrument, and worked for eight years even after his patent was obtained, before it could be successfully introduced. The fact is, that few or no inventions are, on a close metaphysical analysis, the product of a single mind. Many contribute to the result by their advice, suggestions, or speculations; but if any one is not willing to freely give the world the benefit of such aid, content with the simple reflection that he has moderately contributed to the world's progress, he must secure himself by patent at the time, or must come forward with his claim within the two years allowed after the invention has been put in use. Thus much for pecuniary reward. If it be honor alone which is contended for, that unsubstantial, yet sometimes important, reward most certainly belongs to the man who works and who developes rather than to the philosopher who merely thinks. and is finally buried with all his wisdom. Theory is extremely valuable, and philosophical discoveries are in most cases very intimately related to great practical steps in labor-saving and wealth-producing progress, but the philosopher, unless he steps down from the scholastic throne on which he has mounted himself, and drives some discovery forward into a tangible shape, must be content with a reward which, (where it consists in simply knowing and revealing facts in natural science discovered by philosophers before him,) must necessarily be very meagre.

We would not detract one iota from the well-earned fame of Dr. Jackson. As a chemist, geologist, and man of science generally, he stands almost without a rival, and his usefulness will be felt after many of the active, struggling business men will cease to be remembered; but we oppose the idea of allowing a *savan* to wash his hands of all the trouble, and yet claim the glory and emoluments due to real earnest inventors. There may have been scores before who had thought of a device—there may be thousands afterwards who *would have thought of it*—but the man entitled to the reward, both in fame and fortune, is the vigorous prosecutor of the invention. In case two or more strive at once for the same end, there are means provided for testing and settling their claims, but without the manly struggle which seems to fall to the lot of the originators of nearly all important improvements, the merit of an inventor exists only in a quite homeopathic quantity.

We take this opportunity to call attention to the meetings of the Mechanics' Club, which are held regularly most of the year on the second and fourth Wednesday evening of each month, and which might be made a source of great profit to many in this city and vicinity. The meetings are free, and are held at the American Institute Rooms, 351 Broadway. The next subject is that of steamships.

Babbitt Metal.

The *Journal of the Franklin Institute*, in a report of a meeting of the Institute, says:—

Specimens of Garrett's Composition Metal for lining shaft journals, were presented to the notice of the members.

It is said to possess all the anti-friction qualities of the composition known as Babbitt's, with the greater additional advantage of requiring about twice the heat to melt it, which will, no doubt, recommend it to the favorable consideration of those engineers who sometimes melt out a box. It is composed of zinc, copper, and antimony; the first metal predominating largely. In filling the brasses, which are recessed in the usual way, they are heated, and the metal, which should be just above the melting point, is poured in, and after setting, is hammered to close all the cavities, should any be left after filling. The metal is hard and close, and is said to answer its purpose excellently. Upon the Baltimore and Ohio Railroad it has been in use for several months with satisfactory results; and Messrs. Merrick & Sons have lined the boxes of the United States steamer Wabash with it. A fair comparison of the qualities of Garrett's and Babbett's will thus be made, as the five other steamers last built by the government were furnished with Babbitt's metal for all the journals.

[We frequently receive letters inquiring what "Babbitt's metal" is, and the above paragraph would lead persons to the conclusion that there was a distinct metal known by the above name. There is no such metal, nor has a patent been granted for such. In 1839 Isaac Babbitt obtained a patent for the construction of boxes for the journals, wheels, and the axles of carriages, but the patent does not embrace a peculiar metal, it simply covers the lining of a hard shell of metal, with a softer metal for the bearings of axles. The soft metal of copper, antimony, and tin is for the purpose of lessening friction in bearing boxes and the hard shell is for the purpose of preventing the squeezing out of the soft anti-friction metal.

Fog Seas of the Moon.

Professor Challis, of Cambridge, Eng., from recent observations taken of the moon, has come to the conclusion that the dark patches which we see on its disk are fog seas. The general surface and higher projections of the luuar spheroid are altogether uncovered and bare; but vapors and mists have rolled down into the lower regions in sufficient quantity to fill up their basin-like hollows, exactly as water has gravitated into the beds of the terrestrial oceans.

New Wheat.

What a variety of climate we have! In New York the grain fields are still green, and the ears are not yet developed, while in Georgia the wheat harvest is nearly over. New wheat has already been sold in Augusta.

The Toronto *Globe* publishes a list of Canadian vessels. In it are enumerated 48 steamers, 12 propellers, and 172 schooners, in all 227 vessels, the tunnage of which amounts to 40,037 tuns, valued at $2,127,950.

Constitution of Steel.

Steel has always been supposed to differ from wrought iron only by the presence of carbon and by the mechanical arrangement of its particles, but Mr. C. Binks, who recently read a paper on the subject before the Manchester Society of Arts, thinks nitrogen an essential element. Mr. B. gave an account of some analyses made by himself, which proved that the best kinds of steel contain about one-fifth per cent of nitrogen, and the general results of his experiments tend to show that the substances which change pure iron into steel all contain nitrogen and carbon, or that nitrogen has access to the iron during the operation. He holds that neither carbon nor nitrogen, used separately, converts iron into steel, but that it is essential that both nitrogen and carbon should be present. He concludes that steel is a triple alloy of iron, carbon, and nitrogen. With regard to improvements in the present system of manufacture, he was of opinion that the most extensive use of cyanogen compounds, such as ferro-cyanide of potassium, was highly important, and he drew particular attention to the fact that these compounds might be economically formed in the ordinary operations of the blast furnace, so that these operations, properly conducted, might serve the double purpose of purifying the metal and converting it into steel.

Evils of Telegraph Errors.

A case of an error in telegraphing was recently decided at Cleveland, Ohio, against the Lake Erie and Michigan Telegraph Company in favor of Randall Cook & Co., of that place. In 1853, while largely engaged in the wool business, they telegraphed to an agent at Meadville, Pa., to purchase certain lots of wool at 40 cents per pound. The telegraph operator made an error in his message, by making it read 45 cents per pound, at which price a large quantity of wool was bought. The verdict against the Telegraph Company was $1681. The judge charged the jury that the Telegraph Company were liable for damages for the evil results of their errors.

A Novel Turn Table.

On the 2nd inst., Mr. Charles Gould, of the Ohio and Mississippi Railroad, gave a dinner at the Burnet House, Cincinnati, to his friends. After the cloth was removed from the table, a rail track was discovered, connecting the two ends of the table. At one end was a sugar "St. Louis Depot," at the other a "Cincinnati Depot," of the same material. Between these, much to the delight of those present, ran a small locomotive and a train of cars.

Hazardous Yacht Trip.

Charles R. Webb, of Stamford, Ct., has built a sloop-rigged yacht, forty-three feet long and thirteen and a half feet beam, and of twenty tons burthen, with which he intends to run over to Liverpool, and expects to reach there in three weeks' time from starting. This is probably the smallest craft that ever attempted such a feat in navigation, but at the same time it appears to us to be a foolhardy expedition.

To Detect Alum in Bread.

Make a weak decoction of logwood in water, in which pieces of the suspected bread are to be dipped; if it contains alum it will acquire a decided purple dye, which penetrates some distance into the interior. With pure bread, however, no such coloring will take place.

American Camels.

It is said that the Turks look with suspicion on our efforts to contract for building railroads in their country, while we are at the same time buying their camels to breed in our country. They say we want to get rid of our railroads and adopt their "improvement."

The camels which were imported by our government from Arabia, are reported to be doing well in Texas, and as likely to become acclimated as horses. Several native American camels have been born, and others are expected. The only question relates to the quality of the young animals.

The Chemist in the Laundry.

Washing has for its object not only the removal from our clothing of accidental dirt, but also to carry away certain ammoniacal salts, the products of perspiration, which are absorbed from the body by all the clothes that we wear, especially those nearest to the skin. A change of under garment is essential to health on this very account, and the art of washing is more useful in removing the hardened perspiration from the cloth (to which it clings most pertinaciously, like the matter of contagion) than in removing the superfluous dirt which merely offend the eye. Until recently, the laundress's first operation was to prepare "a ley" of potash, which she did by putting wood ashes into a tub having a perforated bottom. The tub was then filled with water, which, trickling through, dissolved in its course the potash contained in all wood ashes. This process is still extant in some parts of the country, especially where wood is used for fuel.

The starting process of washing now is to prepare a ley of soda. Hard water requires more soda than soft; and, when rain water can be procured, alkali may be dispensed with entirely. The utility of soda or of potash in washing arises from the power these alkalies possess of uniting with grease of all kinds, forming a soap; and to disunite the ammonia of the perspiration from the clothes, thus purifying the fabric and rendering it capable of the like absorption when again worn. This important action has hitherto been unnoticed. Now, although we admit their great utility, we particuarly caution all parties not to use too much of these powerful alkalies, because cotton fabrics are partially dissolved by a strong hot soda, potash, or lime ley. It is to this cause that the "bad color" may be attributed, which the housewife now and then justly complains of in the linen. When the outer coatings of the filament of the fabric are thus acted upon, they are quickly influenced by the air, and become of a yellow tint.

There is another cause of "bad color," and that is an insufficient supply of water, or washing too many things in the same liquor. This gives rather a gray tint. The yellow color is, however, the great thing to guard against, as this partakes of a permanent evil; and we mention it in particular, because there are strong washing fluids sold containing lime and soda. In nine laundries out of ten, too much soda is already used; we need not, therefore, desire to increase the evil.

Many laundresses, when they hear complaints of the color of the articles they send home, will make their alkaline ley a little stronger next washing-day, and thus unwittingly increase the evil. A judicious use of soda or pearl ash is highly beneficial, and a saving of labor; but, if in excess, is very injurious.

The strong lixivium, recently recommended for washing linen, has long been known to those who require to cleanse metals from impurities on the surface only. Printers, for instance, may use it with safety to cleanse the face of their type from the unctuous ink used in printing, because the ley is not strong enough to affect the metal. The very low priced soaps are by no means the cheapest in use; and they also impart an unpleasant odor to the linen, which cannot be got rid of.

The use of "blue" in rinse water is too well known to need comment further than to our purpose. The ordinary blue is a compound of Prussian blue and starch. The color that it gives merely covers the yellow tint of the goods, without doing more. We would suggest the use of pure indigo instead of the common blue. This advice is founded upon practice as well as theory. Indigo, in this operation, is without any bad action on the fabric. Persons employed in the "indigo department" of the docks have the whitest linen of all people in London. S. Piesse.

A writer in the Baltimore *American* recommends catnip, bruised and applied to the wound, as a certain cure for the bite of a spider. He says he has frequently applied this remedy to those suffering from such bites, and in every instance they have obtained relief.