

NEW YORK, JUNE 23, 1849.

A New Motive Power.

The following is a condensed description of a new motive power taken from a letter by the author, Count De Wardinsky, published in the London Mining Journal. He says :-

This new motive power surpasses by far steam, or any other power actually known : for, if we employ one cubic inch of the patented ingredient, we obtain from it no less a pressure than that of forty-six tons upon the square inch of surface. The gases evolved consist chiefly of carbonic oxide and carbonic acid gas, both gases, permanently elastic, so that passing through cold air or water, they do not collapse, but will follow the piston to the utmost limit of its work. In using this ingredient we require neither fire or water; it creates neither smoke nor any offensive effluvia, and, with the exception of a slight moisture, or pure vapor, it leaves no residum befind. Neither is there any compound in the gases which could corrode metals, as was presumed by Tschemacher, Porrett, Fordos, and Gelis, who seem to have copied from each other the supposition, " that there might be compounds of cyanogen in the gases of this ingredient, judging from the color of the flame when such gases were ignited," never telling us that the greatest portion was carbonic oxide, which gas is well known to burn with a dark blue flame, the ingredient in question, consists, in fact, of all kinds of vegetable fibres, such as cotton, flax, hemp, tow, straw, hay, paper, &c., rendered explosive by their being dipped for 14 or 15 minutes in nitric acid, strengthened by an admixture of an equal quantity of sulphuric, then well washed in locity of 16 feet per minute, but as we are pure water, and dried for about two hours. By this process all the vegetable fibres in the creation become highly explosive. This fact was first noticed by Professor Otto, of Brunswick, about fourteen years ago; and again by Pelonze of Paris, in 1838; and finally fully published in the English press about the early part of the year 1845, under the name of guncotton as it was called by Professor Schonbein, or as M. Pelonze called it, xyloidine.

Now, considering the very intense power of xyloidine, it is found to be the most tractable ingredient we know-for example, compression, or matting, suffices to limit, retard, or entirely prevent its explosion-not like gun powder, by one fired grain of which a whole mass of the same powder is instantaneously ignited and exploded ; no by slighter or greater degree of compression, I have caused a long sliver of xyloidine to explode in my hand in six and seven degrees of velocity and force; or, by compressing a certain part of the sliver between my fingers, I have limited its explosion to the mere loose and carded parts of it.

The explosive qualities of this ingredient are so great, that very small quantities and small apparatus are required. For an engine of two horse power, a thread not larger in size than ladies' sewing cotton is sufficient. A thread of this size passed through either end of a piston, and divided by compression, and these parts exploded by electricity, will furnish the power. Mr. Isaac Mickle, of Camden, New Jersey, has built one of this size .-The working machinery occupies no more space than a man'sha. He also says that, " in steamboats, locomotives, &c., this must create an entire revolution, but above all this he says that he has made another discovery, which verges almost on a miracle, it is this, that carriages can be propelled on common roads without steam, fire, magnetism, air or animal power, and ships without paddles, sails or any kind of propellers whatever."

It is always cheering to stumble upon something new, especially when it is a discovery like the above, which is sure to place all our steam engines on the upper chelf, to take a long sleep as war worn veterans, good in their day, but no longer able to compete with their any establishment of the kind in the world.

xyloidine dwarfish opponents than could an English longbow with a rifle. We have always said, that we just want such a moter By it, the California balloon is no longer problematical, and although it did not depart as was promised, on the 15th of last April, yet if it starts off on the 15th of April, 1850, it will make only a year's difference and what of that. We have not been informed how Mr. Mickle's engine, at Camden, N. J., operates, and therefore cannot really say anything about it, but we hope that all the noble Count says on the subject, is true, it must be true you know when it comes from such high authority.

There is one discrepancy however, in the Count's account of this xyloidine which does not all agree with Prof. Schonbein. The Count says that xyloidine is the same sub stance which Schonbein calls gun cotton, but this is not so. The gun cotton was discovered by Walter Crum, of Thornliebank, Glasgow, to be pyrozylodine an essentially different composition, says Prof. Schonbein, from the xyloidine of Pelonze. According to the noble Count's statement, we must express no more doubts about perpetual motion now, as the xyloidine exploded forms a permanent elastic gas, and being perfectly tractable, all that we have to do is, just to explode two strips of it alternately above and below a piston in a cylinder, cutting off at half stroke and exhausting to let the gas travel back again, in an outside tube, and thus we have the same xyloidine that gave the first impulse, travelling round and round, like keeping the pudding hot, all day long, and night too if necessary.

The Count states that "a cubic inch" of his xyloidine exerts a pressure of no less than 46 tons on the square inch. Now as this is a permanent elastic fluid not to be collapsed, one cubic inch by the operation we have described will drive an engine of 22 and nearly a third horse power, making only 5 strokes per minute, if the stroke is 3 feet and a quarter, and if the pressure alone has only a venot enlightened on the velocity and pressure at the same time, we must stand up back to the wall on this point. As the nobleman's letter has been extensively praised in American papers, we hope that we may be excused, not for our incredulity, as that is very tully developed, but for a want of optic perceptability, which some may attribute to ozone in the New York atmosphere, and this may really be the case, at least, we are positive that it is not xyloidine.

## Ames's Great Machine Factory.

At Chicopee, Mass., formerly Cabot and Chicopee, is the extensive and far famed establishment, known as the Ames Manufacturing Co. In this establishment 300 men find constant employment, at various branches of mechanical productions. There are manufactured splendid cutlery for Uncle Sam's service in the shape of " swords of metal true," every one of which is submitted to a bending force of a severe nature, and is then whipped on edge, back and flatwise on hard blocks of wood of different forms, until the experienced tester is satisfied that it can cut through a bar of steel as thick as that severed by the famous cross hilt of Cœur de Lion. Besides war cutlery, there is made in this establishment lathes of a superior finish, and also the well known augurs for boring pump logs-a most ingenious contrivance-invented by the father of the present gifted and gentlemanly proprietor. Machinery for the cotton and woolen manufacture is also made with an accuracy not surpassed by any machine shop in this country. At the present moment there is some beautiful machinery nearly completed for factories in progress of erection at Ireland Depot, a place about nine miles above Springfield, on the Connecticut. In fact, this establishment manufactures neurly all kinds of machinery and tools, and from the known skill of the operatives employed and the genius of the proprietor, it is not too much to say, that from the delicate hair spring and gearing of a watch, to the ponderous proportions of the mighty steam engine, all can be constructed with an accuracy of proportion and combination of parts, not outrivalled, if equalled by

Turbine Wheels of various powers, for prime moters, forms a very interesting feature in the establishment. This kind of wheels are now extensively known and used, and in many situations they are better than overshot wheels. Many factories might be erected and driven by Turbine wheels on the banks of rivers, where overshot wheels would be out of the question.

The writer of this article has no interest or desire to flatter any man, or establishment, but being on a recent excursion to Springfield he embraced the opportunity of visiting this establishment, and as he experiences delight in looking upon beautiful machinery, he felt an impulse within him to give expression to his feelings, by stating briefly what is done at the above place. W.

## Lime.---Some of its Uses.

Lime has been known from the remotest ages. It is found under different forms, but as it is used and known it is the oxide of calcium. It is composed of the metal calcium 71.91; oxygen 21.09 = 100.00. In nature it is found combined with sulphuric acid and is called Gypsum and Plaster of Paris. and when in a crystalline form, it is named alabaster.-When it is combined with carbonic acid, it is chalk in one form and limestone in another, and when crystallized, it is marble. It is found scattered under these different forms in almost every country. Lime can be obtained by roasting oyster shells or any of the carbonates of lime, in a kiln. The roasting drives off the carbonic acid and what is called quicklime is the result. When sprinkled with water it becomes very hot, by the water giving out its heat in the new combination, and combining with the lime to form a hydrate. As the lime is anhydrous, it will also imbibe moisture, if exposed, from the atmosphere, and then it falls into powder. In the combination of water with lime a heat of 300° centigrade is produced-a heat sufficiently intense to ignite many combustible bodies. The hydrate of lime (slacked lime) is very sparingly soluble in water, and what is strange, cold water solves more of it than warm. One grain of lime requires 1270 grains of water at 212º to solve it, while it requires only 972 grains of water at 130°, and only 778 at 60°. Water at 32° is capable of dissolving twice as much lime as water at 212.

The hydrate of lime possesses one curious property, viz. the quality of absorbing carbonic acid gas when it is left exposed. Quicklime therefore loses its property of mixing well to form mortar, when it becomes old, if it has been exposed, for the carbonate of lime thus reformed, will not mix with water .--When lime is mixed with water, it has also the property of absorbing carbonic acid gas from the atmosphere, which is known by a scale forming on the lime vats. Tanners and Dyers know this, but few of them know the cause of such formations. It is this quality of the hydrate of lime which makes it a good disinfectant. It gives up its oxygen 28.09 and embraces the deleterious carbonic acid gas.

No bleach works, dye works or soap works, should use water impregnated with lime, for it decomposes common soaps and forms an insoluble lime base soap. Our carpet factories would do well to pay some attention to this subject, to see that they are not losing some hundreds of dollars every year. The most delicate test of lime is the oxalate of ammonia. When this is added to water supposed to contain lime, if that body is in the water, it will be thrown down in a curdy precipitate. This test will also answer for those who may wish to test the water they desire to use for steam boilers. The precipitate is but slightly soluble in water. The oxalate of ammonia, will also precipitate an oxalate of baryta, or strontia, if these substances are in the water, but they are very scarce indeed in comparison with the carbonates of lime.

The moderns use lime for a great number of purposes unknown to the ancients. It has been a greatcivilizer, and we do not know how we could do without it. It is kind in Providence to have made it so abundant. It is used for building our houses, for raising our food, for bleaching our clothes, and in dyeing some of the most beautiful colors. The metallu gist uses it as a flux in the separation of me- tute for Bay mahogany, and is a native.

tals from their ores, and the glass maker uses it in his art. As a sulphate it is used to take representations of things that were and are, and as a carbonate we behold it coming from the studio of a Powers with the inspiration of ancient Greece glowing in every bounding line of beauty. In short, lime is one of those products of nature, which is so common that few do not know and fewer still reflect upon its real benefits, but we verily believe that if it was unknown, and we had no adequate substitute for it, we would be little better than the barbarians who now live in huts and roam with fish bone spears over the wilds of the Pacific Islands.

#### Needles.

In the manufacture of needles, the slender bars of steel are forged out by a succession of hammers, each one less in weight and quicker in stroke than its predecessor, as the motion of the hammer is alternating, the dislocating effects of its momentum when thrown into rapid vibration would be enormous, but for the contrivance of giving the hammer a dou. ble face, and causing it to strike every time it rises against a block of steel above, from which it is thrown back upon the anvil. The vibration is thus produced by a series of rebounds between two opposing surfaces. Five hundred strokes can thus be made in a minute, while the power is greatly economized and the strain upon the stalk and axle nearly annihilated.

## Great Patent Case.

On the 13th inst., at Frankfort, Ky., in the United States Circuit Court, Judges McKinley and Munroe on the bench, decision was made in favor of Henry O'Rielly, giving him the privilege to use Bain's Instruments from Nashville to Louisville, which obviates the injunction, for infringement, obtained by Morse last fall over the Columbian, or Zook & Barnes' instruments, and regarding which so much was said in the newspapers.

The decision must have been rendered although we have not heard what the charge was, that Bains' telegraph, chemical, and Morse's electro magnetic, were entirely different inventions.

## Free Bathing for the Poor.

The Society for the Employment and Instruction of the Poor have thrown open their Baths in the House of Industry, Movamensing, Philadelphia, to the poor, at the nominal rate of five cents for each bath, to those able to pay, but free to the needy, whose means do not admit of this outlay. The importance of cleanliness at the present time should prompt many to avail themselves of the opportunity so liberally offered to them.

It is also proposed to adupt the same system in this city. The subject is before the Common Council. We hope to see the system adopted and carried out.

#### Another New Planet.

Foreign papers announce that Professor Schumacher, Altano, announces, by a circular of the 11th of May the discovery of another new planet. It was observed at Naples by Signor Gasparis, on the 12th of April. It resembles a star of the 9th or 10th magnitude and its position was near a star which appears on Steinbeil's celestial chart in right ascension, 12h, 9m. 49s., and in-7 deg. 0m. 9s., and forms No. 23,098 in Lalande's catalogue. The motion of the planet was retrograde, and it was approaching the equator. This is the ninth new body (including planets' satellites) which has been added to the solar system within the last four years.

## Dredging Sandusky Harbor.

The Cleveland Plain Dealer says, that the Sanduskians have voted a tax upon themselves of forty thousand dollars, and more if necessary, for the purpose of making their Bay navigable. The propeller Petreltowed up trom Buffalo the other day, a dredging machine which cost \$6,000, and which, it is estimated will require \$3,000 more to put in operation. It is calculated to begin operations in about six weeks, and to commence at the mouth of the Bay, where a new channel is to be opened into it.

There is a kind of wood called China wood, now beginning to be extensively used in cabinet work at the South. It is a good substi-



LIST OF PATENTS. ISSUED FROM THE UNITED STATES PATENT

OFFICE.

For the week ending June 12, 1849. To David Deihl, of Hanover, Pa. for improvement in Seed Planters. Patented June 12, 1849.

To Nelson Platt, of Ottowa, Ills. for improvement in Harvesters. Patented June 12 1849.

To Joseph W. Briggs, of Cleveland, Ohio, for improvement in Harness Saddles. Patented June 12, 1849.

To Alfred Stillman, of New York City, for improvement in Steam Pipes for Sugar boiling. Patented June 12, 1849.

To George Colby of Fayettsville, Pa. for improvement in Drill Barrows. Patented June 12, 1849.

To J. Adams, L. Adams & L. H. Moore, of Mass.for improvement in Machines for cutting out Felloes. Patented June 12, 1849.

To F. C. Goffin & C. Liebrick, of Philadel phia, Pa., for improved Padlock. Patented June 12, 1849.

To Reuben Murdock, of Rochester, N. Y for improvement in Barrel machinery. Patented June 12, 1849.

To Isaac Knight of Baltimore, Md. for im provementin Trucksfor Railroad Cars. Paten ted June 12, 1849.

To John A. Taplin, of Fishkill, N. Y. for improved construction of the master wheel of horse powers. Patented June 12, 1849.

To Jacob Mumma, of Middletown, Pa. for improvement in Corn Shellers. Patented June 12, 1849.

To Chapman Warner of Louisville, Ky. for improvement in Churns. Patented June 12, 1849.

To E. Von Heeringen, of Pickensville, Ala for improvement in Musical Notation. Patented June 12, 1849.

To L. P. Haslett, of Louisville, Ky. for improvement in Inhalers or Lung Protectors. Patented June 12, 1849.

To J. L. Mott, of New York City, for im provement in Cooking Stoves. Patented June 12, 1849.

The History of the Solar System.

By J. P. C. Nichols, Professor of Practical Astronomy in the University of Glas-

(Concluded.)

gow.

There is a little insect called the ephemera, which lives out its lifetime in an hour. Supposing a reasoning ephemera were to contemplate the blossom, it would regard it as an absolute existence, as a thing which is thus and thus-and not as a thing which had become whatitis. It would not imagine its developement from the seed down to its appearance in beauty on the tree. Man is ephemera ; shall he decide of the august creation of his Maker, that it may not have a history and developement of its own? From what prior condition must we imagine the present solar system to have been evolved, in order that it may contain the arrangements and dispositions we have seen in it? This inquiry is by no means anovel one. Geologists have, with reference to our own planet alone, traced the present condition of things back to a fluid state of matter. I must go beyond that period and conceive the solar system as existing in a gaseous condition, in a chaotic, formless state. Now, in reference to the speculations in which I proceed to enter, I must say, that a great change has recently taken place. Sir Wm. Herschell thought-and with the facts then known, I see not how he could have reasoned otherwise-that many of the dim spots we see in the heavens are not clusters of stars, but accumulations of matter existing in the gaseous The discoveries made with the large state. telescope, at Parsonstown, have destroyed so much of the speculation as depended on the forces is destroyed, and a piece of the outer actual existence at the present day, of such circle flies off. Had this outer pertion been gaseous accumulations of matter, and we rea- not of stone, but a belt of elestis substance,

# son only from the evidences of a former like condition of the solar system. The hypothesis must be accepted now, or rejected, according as it agrees with what we see around us and, also, according as it explains the phenomena for which it is required to account. The theory I am about to explain was given to the world by the great French astronomer. Laplace, than whom a greater man in this department of science has not appeared since our own Newton. The solar system may have come into being out of some nebulous mass, which has gradually condensed according to the simple laws of gravity. In order to understand what may have taken place, we must

follow the condensation of this nebulous mass, and enquire what, according to known laws. would take place; and if we find that our system is just such an one as must result of necessity from laws acting under those circumstances, we shall have established a very high degree of probability for the hypothesis.-There is also one other hypothesis which we must assume at the commencement. The question is, in what condition may this nebulous mass have been in ? Now to answer these we must ask, what is the great general distinguishing feature of our solar system ? The answer is, the rotation of all its bodies round a common centre, and in one direction; and their own rotation on their own axis. Our supplementary hypothesis is, that the nebulæ out of which the solar system is formed existed in a state of rotation. This motion may have been very slow, and very indefinite; still it was a motion of rotation somewhat like a whirlpool. This assumption is further justifiable, because motion in a mass of matter that is condensing would, in obedience to mechanical laws, turn into a whirling motion. We assume then, that a motion of this kind existed in the nebulæ. It is a consequence of the laws of condensing bodies that this motion should become more and more definite, and the solid body coming out of this rotation will have a rotation round its own axis. The swiftness of the motion must increase as condensation goes on. Notice what condensation really means; It is simply a flow of matter from the extremity of the outer rim to the centre of the mass. As the outer particles are moving faster than those nearer the centre, if they are brought nearer to, they will increase the speed of the mass. The pironette dancer understands this mechanical law; when he wishes to astonish us by the rapidity with which he can turn round, he draws in his extended arms and keeps them close to his body, and by that means greatly accelerates the rotation of his body. You are aware that the sun rotates on its own axis; it is an important fact, that the fixed stars, according to the belief of astronomers, rotate in a similar manner on theirs.-Rotation on an axis may be said to be the condition of steller existence; so that if these grand orbs came out of matter like our own, we may be able to explain how that motion originated. The rotation of the sun about his axis is an inherent part of our hyphothesis ; but there is a question of far greater import. Does the same hypothesis apply to the forms of planets? We see how this central mass may originate, and have a rotating motion; but how do the planets arise in such a change? Let us conceive for a moment what it is that keeps up the connection of the nebulæ with the above mass. There are two forces acting upon every particle of matter on the outer rim, there is the tendency of each particle to fly off; and this tendency is counteracted by the attraction of the general mass. Now if one of these forces should ever get to be stronger than the other, the balance would be destroyed, and the connection broken. Now, the nebulæ must have had some parts of its substance less condensed than the rest; and if one part of this less condensable matter came to occupy this outer rim, it would separate itself from the mass, and fly off; we should have a separate ring of uncondensed matter. This may be illustrated by a common occurrence; it often happens that the grind-stone is driven round with so great rapidity, that what I have been supposing actually takes place; the balance between the centrifugal and centripetal

instead of breaking into pieces it would have tions of each fragment will plunge over and expanded itself, and made a separate ring at some little distance from the grindstone. Owing to the attraction of the earth, this ring would have fallen to the ground; but if the same could happen away from such a power of attraction, the ring would have revolved round the mass it had left. It is certain that from a mass composed of different portions of matter, such rings must separate themselves from the general mass of matter in course of condensation, so that ultimately a great solid globe would be left, surrounded by a number of subservient rings at different intervals of space. We now see how a dependent and separate matter may arise. Before proceeding further, let us see how far we have got. We have attained to the idea of the way in which dependent and separate matter might arise; how we might have a central globe and rotatory motion; and how, further, that rings must be thrown off from the equator of the mass. This last fact is the explanation of the first question we proposed. How is it that all the planets move in the same plane? It is not only that all were thrown off the sun, but, that all were thrown off the sun's equator. It must be obvious that the rings would be thrown off there, and nowhere else, as the velocity and expansion would be there greatest. These rings would continue to turn round the central mass, with just the velocity it had when they left it. Further, whatever becomes of these rings, in whatever form they mould themselves, the masses they form must revolve almost in circles. We have now the explanation of three arrangements-first, of the motions of the planets all in one plane;-secondly, their motion round the sun, all in one direction; and thirdly, that they move almost in circles. The problem is then rapidly becoming simplified. We now ask-What may become of these rings : into what forms may they ultimately resolve themselves? There are three possible modes in which the rings may arrange themselves, two of which are very improbable, and still quite possible. Suppose that the outer ring had been perfectly uniform in its composition, no one portion being denser than another, then the ultimate form it would assume would be that of a solid ring; we should have solid rings moving in space round the sun. This, however, could not happen unless the ring was perfectly uniform in constitution at the time when it abandoned the mass. Such an improbable form, let me notice, we have within our own solar system-that remarkable ring round the planet Saturn, the only one with which we are acquainted. I think it is somewhat in favor of our hypothesis, if we can get evidences for it, even from the exceptions and anomalies in the facts we observe. Secondly; it the ring is not uniform at the time of leaving the mass, it must break up, and the denser portion would draw all the surrounding matter into one Two things might then happen, supmass. posing that the matter into which the ring was being drawn were so disposed as to balance each other in the circle of mutual attraction. It is clear that in that case we should have, not a ring, but a number of small bodies moving round the sun at small distances from it. This, though a perfectly possible occurrence, is one by no means likely. Singularly we have an instance of formation in the group of planets which lie between Mars and Jupiter; they are quite small, and appear to lie at the same distance from the sun. Thirdly : the mode in which a ring would be most likely to break up would be so that one denser part would absorbinto itself the whole matter of the mass: the ring would resolve itself into one large body, which would assume the cir-So cular shape, and revolve round the sun. that the general law of our system-that of a central mass, and other masses revolving round it-would be that which comes nearest to our hypothesis. We have not spoken of the rotation of bodies round their axis: these all move in the same direction. How is this to be accounted for? Let us suppose the outer rim of the masses to be broken up, and see what motion the fragments will assume. As the outer rim itself had a higher velocity than the rest of the mass, so the exterior portion of the rim has a quicker motion than the interi-

over the inner portion, and cause rotation round the centre of gravity. From this fact we see the absolute necessity that every one of the planets should move in the same direction with its orbit. We have contemplated the birth and developement of this beautiful system of ours-dare we stretch our thoughts to that time when even it shall fail? If the theory laid before you to-night be the correct one, we may. You know how the planets are retained in their orbits; it is because the two opposite forces exactly balance each other. But modern astonomy has proved that there is a power at work destroying their balance .--From observations made on the retarded return of Euche's comet, and its gradual approximation to the sun, we learn the existence of a fluid, an ether, which, however subtle, tends to diminish the centrifugal force, and add to the attraction of the sun.

However slowly it may approach, we may, then, contemplate the day when this present system shall pass away; not, however, into a vast ruin, but in its own beautiful and majestic order, just like a flower, which, having adorned the earth, lets drop its leaves when its work is done, and falls back obediently on its mother's bosom.

### The Pope's State Carriage.

The Pope's state carriage, a most gorgeous vehicle, commenced by Leo. XII., finished by Gregory XVI. and retouched during the reign of Pius IX., at an expense altogether of 24,-000 scudi (£5,001.), was recently conveyed in great pomp from the Vatican to the Franciscan Convent of Ara Cceli, on the Capitoline hill, where it was formally made over the monks, to serve exclusively for the revered image of the infant Jesus, when carried to visit the sick and dying in various parts of the city. This image, considered by its beneficial results to be one of the most miraculous that Rome possesses, has nevertheless been hitherto borne on its charitable missions in an exceedingly shabby coach, so that the soldiers of the 'corps de garde' seldom recognized the equipage in time to present arms before it had

gone by; buton that afternoon the good citizens and their wives wept with delight on beholding the santo bambino, attended by the guardian monks, installed in all the splendors of the papal carriage, and proceeding triumphantly down the Corso to visit the sick and wounded at the hospital San Giacomo.

### LITERARY NOTICES.

### The Pictorial Organ.

Messrs. Oliver & Brothers, the enterprising publishers, have just issued a splendid Pictorial as No.1 of Vol. 9. Those who want to see a good pictorial should buy it and those who want the Temperance paper, edited with marked ability, should subscribe for it.

History of Wonderful Inventions.

This is a very able and useful book of the Boys' Own Library, published by Harper & Brothers. There are two volumes, 25 cents each. They should be in every family, as cents. they are standard, and comprise a history of those things which have revolutionized society more than all the laws enacted by nations or battles won by heroes.

Our thanks are due to Drs. Wesselhæft and Grau, of the Water Cure Establishment, Brattleboro, Vt. for a copy of their very interest-ing Report. It states that 392 cases were treated hydropathically in 1848.

Messrs. Dewitt & Davenport have just isueda pamphlet, entitled Cholera, its Causes, Symptoms and Treatment considered and explained, by J. P. Batchelder, M. D., of New York. Some of the observations appear to us very reasonable. Price 121 cents.

Through the politeness of Messrs. Dewitt & Davenport of this city, we have the July No. of Sartain's Magazine, which in point of excellence and beauty, fully equals if not sur-passes any former number. The typography is exceedingly well executed, and the em-bellishments are of the highest order. We are gratified to know that this work meets an encouraging support.

Peterson's Ladies National is also on our table. " The Gentle Warning," is one of the best executed mezzotint engravings we have ever seen, " Edith," an equestrian figure, is also very pretty. This number commences a the 16th volume, and the great improvements which have been made by the enterprising publisher, we hope will not go unrewarded. The matter is always good and fascinating.-Dewitt & Davenport, Agents.

# Scientific American.

r. When the ring is broken, the outer por-