



The Fair of the American Institute.

No. 8.  
PREMIUMS AWARDED.  
SILVER MEDALS.

Callahan & Wilson, Albany, for a Cooking Stove.  
Mrs. C. Van Epps, Ovid, N. Y. for best Silk Cocoons.  
S. O. Loomis, Windsor, Conn. for best Sewing Silk.  
New York Dying Establishment, 45 John-st. for best Silk Twist.  
Court & Dechaux, 579 Greenwich-st. for best Silk Dying.  
J. H. Wood, Poughkeepsie, N. Y. for best Sleigh.  
Geo. D. Underhill, 162 Mercer-st. for Light Wagon.  
Henry J. Kip, Newark, N. J. for Farm Wagon.  
E. Davis, Jersey City, for Dirt Cart  
Wands & Tremere, 210 Water-st. for 2d best Cooking Stove with Boiling Apparatus attached.  
Lecount & Ward, 165 Chrystie-st. for Cart.  
James N. Jerolaman, Newark, N. J. for best Coach Axles.  
Harrison & Breese, Newark, for best Mail Axles.  
Jones, White & Co. N. Y. for best Artificial Teeth.  
J. B. Richards, 43 Eldridge-st. for workmanship on House's Magnetic Telegraph.  
J. Atwood, 183 Broadway. for Elliptical Compass.  
Benjamin. Pike, Jr. 294 Broadway, for Air Pump.  
Gregg & Rupp, 120 Water-st. for Nautical and Surveying Instruments.  
W. W. Rose, 19 Wall-st. for the best Blank Books.  
J. C. Koch, 183 William-st. for best Book-Binding.  
Platner & Smith, Lee, Mass. for best Letter Paper.  
John Campbell & Co. 110 Nassau-st., for Hardware Paper made from Manilla Grass.  
Richard Smith, 327 Stanton-st. for Parchment and Vellum.  
Mathaniel Fean, 374 Bleeker-st. for Family and Fancy Bellows.  
Waterbury Brass Co. Waterbury, Ct. for Brass Kettles.  
John Morrow, Paterson, N. J. for Printers' Blankets & Papermakers' Felts.  
E. B. Force, Red Mills, N. J. for Printers' Blankets.  
Z. M. Quimby, 302½ Broadway, for best Shell Combs.  
C. Coles, 187 Broadway, for best Morocco Cases.  
B. J. Williams, Philad'a, for Fancy narrow Flat Venetian Window Blinds.  
W. E. Bose, 300 Broadway, for Gold and Silver Mounted Cases.  
John Bruce, 24 Platt-st. for Steel and Copper Plates.  
W. D. Smith & Son, 1 Ann-st. for prepared Oil-Stone.  
Isaac Edge, jr. Jersey City, for best display of Fireworks. Silver Cup, \$15.  
John W. Hardfield, Williamsburg, for 2d best display of Fireworks. Do. \$10.  
J. Gurney, 189 Broadway, for best Daguerreotype Likenesses.  
J. & J. C. Conroy, 54 Fulton-st. for best Fishing Tackle of all kinds.  
A. W. Metcalf, 63 and 65 Centre-st, for very superior Brass Cocks.  
Bruno & Clinchard, 53 Mechanic-st. Newark, N. J. for superior Files.  
Reeford Glass Co, Clinton Co. N. Y. for Crown Window Glass.  
H. P. & W. C. Taylor, Pbila. for best Transparent and Fancy Soaps.  
Wm. Blake, Akron, Ohio, for best Fire and Water Proof Paint.  
Smith & Curlett, Balt Md.—John P. Veeder, Agent, 88 Fourth-st.—for best adamantine Candles.

**Tripoli for Polishing.**

Of all the substances which have been applied to polish glass and metal none can equal that substance known by the name of Tripoli. It is a natural production, and was first brought from Africa to Italy by the Venetians and used by them in their palmy days of glass making, to give it that peculiar polish so much admired by other nations. Under the name of Italian Tripoli, its reputation has become world wide. But the same substance and a superior article to the imported Italian was discovered about a year ago, we believe, near Saco in Maine. The bed discovered is very narrow, but of rare quality and from what we know of it, we are positive that no other substance can equal it for the purposes we have stated. It should be in every family and in every workshop. We believe that its qualities are not generally known and we take this opportunity to speak of its merits, believing that many of our readers and others will be glad of the information.

The Manufacturing Agent of the Mount Eagle Tripoli Company, is Geo. N. Cheever, No. 21 Dock Square, Boston. The powder is put up in neat packages with full directions how to use it. Its price is from 10 to 15 cents per package and every person who has steel, iron, brass, or a reflector to polish up, should never have a package far from their elbows.

**Singular Circumstance.**

There resides in Delaware, some few miles from Templesville, Md., in Queen Ann county, a respectable farmer, having a daughter, now about eleven years old, who, until attaining her fifth year, labored under an impediment of speech, which was thought incurable. At that time, for some trifling indiscretion, her mother spoke quickly and sharply to her and boxed her ears; singular to relate from that moment, for four months, the child never uttered a word. At the expiration of that time however, when the afflicted mother had become almost frantic at her supposed instrumentality in depriving her child even of her impaired speech, this faculty was again restored—and what is still more incomprehensible, without the slightest impediment of any kind—a blessing which she uninterruptedly enjoys to the present time.

**The Late Transit of Mercury.**

On Thursday the 9th ult., agreeably to the predictions of astronomers, the sun rose with the planet just entered on its disc, and with only occasional interruptions of thin clouds, remained visible till the time of the end, a few minutes before 11 o'clock A. M.

The duties of the Cincinnati Observatory were not neglected. At the invitation of the Director, Messrs. Walker, Yarball and Pourtales made such observations of this interesting phenomenon as were suited to the occasion, and recorded in the Journal of the Observatory. It is but three years and a half since the great telescope was erected. The first use made of it was to observe the transit of Mercury on the Palo Alto anniversary on the 8th of May, 1847. The longitude of the observatory by that transit has received no correction till the recent comparison of it with the Atlantic observatories through the aid of the telegraph. We learn that the longitude obtained by Prof. Mitchell on that occasion, has needed only a change of about a quarter of a minute of time to conform to the most recent result.

It seems somewhat strange, that, in the present perfection of the science of Astronomy, an error of some three minutes should be committed by computers, in assigning the time of the end of the transit. Three minutes, however, is better than half an hour—the ordinary error of such work at the commencement of the century.

**The Body Rendered Fire Proof.**

Tanacre a Neapolitan physician states that the human body can be rendered insensible to fire by the following embrocation being applied. One ounce and a half of glue dissolved in four ounces of hot water; to this add an ounce of fish glue, and half an ounce of gum arabic.

This is a receipt which we have selected and must say that it is of doubtful progeny and more doubtful veracity, and we think this is a caution enough to copyists.

**Compressed Air Locomotion on Common Roads.**

The London Mining Journal says that a third trial was made a short time ago for testing the capabilities of Baron Von Rathen's compressed air locomotive for working the air expansively and which operated very well although there was one or two leaks which subtracted somewhat from the real power.—As it was, however, the carriage, weighing 3 tons, and carrying from 25 to 30 persons, started in good style, and kept pace with former experiments, as to time and distance: the motion was very regular, and the machinery stood well—the only casualty being the above leakage. The patentee considers he has now completely solved the problem of the practicability of employing compressed air in locomotion, and regulating it as to distance, speed, load, nature of road, &c.—on which, with the greater or less perfection in the construction of the machinery, its success, of course, depends. He is prepared to show to mathematical demonstration, that he can embody sufficient power in this model air-carriage to carry 4½ tons, including carriage, 10 miles in one hour on common roads, or a train of 45 tons in the same time the same distance on a railroad; but if carried out on a large scale on the latter, he contends that the system would effect a saving of 75 per cent over the steam locomotive.

**The Ball Axletree.**

This is simply a groove turned in the axle, and a corresponding groove in the box, into which groove are dropped one or two steel balls, so contrived that one-half of the ball is always in the groove of the box, and the other half in the groove of the axle—thus preventing the possibility of the wheel coming loose, and in a considerable degree reducing the friction. The box is perfectly air-tight, and contains a considerable quantity of oil, and the process of removing the wheel when necessary is reduced to the very extreme of simplicity.

It is simply anti-friction balls, which have long been employed in shafting, applied to the axle of a carriage. The great difficulty with them lies in their being apt to wear uneven from inequalities in the metal.

**Galvanic Sheeting for Ships.**

In 1827, by the advice of Sir Humphrey Davy, the English Admiralty caused the copper sheathing of vessels to be covered with a certain number of plates of zinc, in order to oppose, by a galvanic action, the rapid corrosion of the metal in sea-water, particularly on some parts of the coast of Africa. But this expedient had soon to be abandoned, because considerable deposits of shells and agglutinated sand encrusted the vessel so rapidly, that its progress was retarded. The galvanic action in this case accelerated the phenomenon. The copper, rendered negatively electrical by the pile formed by the superimposed zinc and copper, attracted the insoluble bases, the magnesia and lime, held in solution in the sea-water, and the side of the vessel began to be covered with carbonate of lime and magnesia, the shells and sand being then precipitated on these earthy deposits.

**Sea Weed for Manure.**

It is a common thing for farmers on the sea coast of Connecticut and Massachusetts, to manure their fields from the produce of old ocean. During storms both sea weed and fish are frequently thrown upon the shore and sometimes the weed is gathered from the rocks, far below the surface of the water, by those who make it a business during the proper season for the purpose of selling to the farmers. The fish are principally the moss-bunkers, that come upon the whole Eastern coast in countless shoals during the summer months. But with these a great variety of others are brought to shore in the capacious nets that are used. Young sharks in considerable numbers are sometimes taken at a single haul, and are more appropriately employed in feeding corn to feed children, than feeding on them. The practice above noted has raised the price of land from \$15 or \$20 per acre to \$75 and \$100. It shows conclusively, the advantage to be derived by an intelligent husbandry, whose attention is awake to every object that can be enlisted for the promotion of its interests.

**Holden's Dollar Magazine.**

The December No. of our favorite is before us replete with instruction and amusement as usual. It is certainly a splendid number and though it bears no comparison to the January number (the proof sheets of which we have seen) it is yet the handsomest one yet issued. The frontispiece is certainly one of the finest specimens of Wood engravings ever seen in this country. We cannot too highly extol the meritorious qualities of this publication. In the year it has secured the enviable title of the "Blackwood of America," and seems determined to excel next year its previous reputation. It is essentially an American Magazine and as such should meet the warm encouragement of American mechanics, farmers and laborers, and no doubt will eventually secure the largest circulation of any similar publication in the world. Published by C. W. Holden, 109 Nassau street.

**Gold Smelting.**

The silver and gold smelting establishment of Mr. John Warwick in this city, now does a business of \$3,000 a week. It is the largest Gold smelting works in the United States. Ores of all kinds and hundreds of barrels of Jewellers' sweepings, old crucibles, &c., are taken there to be ground up and have the gold extracted. After being twice refined the gold is feathered in water and returned in its purest state to the owner.

**Factories in the West.**

The Quarterly Review of the Methodist Church, contemplates the time when manufacturing will crowd the shores of the Ohio. It says:—

"The abundance of cheap fuel for the production of motive power—the proximity to the cotton growing region—and to a market for coarse cottons, extending from the Mississippi to the Pacific, and from the falls of St. Anthony to the centre of Mexico—the profusion and cheapness of all that is needed for the sustenance of man and beast—the rapid increase of population, eager to achieve a fortune more easily and rapidly than by the small and slow returns of agriculture, are considerations which render it impossible to doubt that other Lowell than that which skill and enterprise have constructed where the disadvantages were incalculable, must spring up naturally and almost spontaneously, where the advantages are so conspicuous."

What is here said by the Review applies with double force to the South. We trust that such truths, which are rung so constantly in the ears of the South, will at last exhibit themselves in action.

**British Steamers at Mobile.**

We learn from the Mobile Register that arrangements have been made by which the British steamers will soon call regular at Mobile Point, on their way to and back from the West India Islands. This line of steamships annually consumes, it is said, about \$450,000 worth of coal; two thirds of which will be taken from the coal fields of Alabama.

Five hundred tons of copper arrived in this city from Valparaiso three weeks ago. It is the first of a new kind of trade with South America, and the United States, heretofore the copper and ore of South America was all sent to England, now it has begun to take a different route. The smelting business in the United States, (of all kinds of metals) is but in its infancy and we commend the science, for a deep science it is, to the study of our people.

The Queen and Prince Albert have appeared in rather new characters, suitors in the Court of Chancery, seeking to prevent piracy of their etching and drawings by one of the publishers in Paternoster-row. An injunction to restrain the publication has been granted.

Of the 56,000 square miles embraced in the limits of the Prairie State, (Illinois) 50,000 are fertile and arable—an amount equal to the whole territory of New England, excepting Vermont.

Great efforts are now making throughout this and other States, to bring about a universal Ten Hour factory system. The manufacturers are not opposed to it but favorable, only they wish a general system for fair play.