

MISCELLANEOUS.

The Fair of the American Institute.
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CARRIAGES, &c.—The display of carriages this year is tolerable. Mr. John H. Wood, of Poughkeepsie, exhibits one single carriage, and two phaetons of admirable workmanship, especially the former. Armour & Brothers, 87, 6th street, this city, exhibit a beautiful light wagon. John Swenartin, of 225 Greenwich street, this city, exhibits a shifting top wagon. Messrs. Borden & Brannen, Newark, N. J., exhibit a fine double trotter wagon. Messrs. Williams & Dinger, of Amity Place, this city, exhibit a very rich coach, the finest we have seen in a long time. John B. Wood, of Clifton, Staten Island, exhibits a phaeton, all of iron named, the Victoria Phaeton. It is low in the wheels, and resembles the "jaunting car." An iron buggy, on Patterson's patent, is exhibited by Mr. Schenck, of this city, the wheels are suspension, and the shafts are iron tubes. D. P. Carpenter, of Varick street, this city, exhibits a light wagon with spring steel wheels. Theodore V. Seaman, of 124 Eighth street, this city exhibits a very fine light trotting wagon, and John C. Ham, of 360 Broadway, exhibits a very nice light carriage. There was one fine omnibus on the bridge, and also some beautiful light trotting buggies. There were two rich sleighs and three or four Tom-Thumb carriages in the rotunda. The newest invention on carriages is the one we alluded to in our notice last week, with the folding top. We expected to see more from Newark this year, as it is famous for carriage making. We did not notice a single carriage from Albany, Troy, or Ithaca, places in which a great number of good carriages are made. What's the reason of this? No doubt they are good. Here we have only ten carriages and vehicles of that kind on exhibition; this is certainly a poor affair, when we consider how many manufacturers we have in every part of the country. We confess to have experienced some disappointment in the carriage display as a whole. We expect better next year.

STEAM ENGINES.—No machine has received so much attention or has been so tortuously modified as the steam engine. Every year brings out something novel; but with respect to practical value, time and repeated trials alone can determine that. This year three new modifications of the steam engine have been exhibited for the first time viz.; a pair of oscillating engines coupled at right angles to one shaft, built upon the principle of the invention of Messrs. Morris & Wylie, of this city, and exhibited by Mr. Morris, the other being the rotary engine of Mr. Barrows, corner of Water and Beekman streets, this city, and the next a beautiful model of a double cylinder to work expansively, by D. E. Barnum, of this city. The oscillating engines have no valve rods, the steam box is stationary, and the cylinder, as it vibrates, cuts off and exhausts itself, thus performing the office of a slide valve, another arrangement about it is a plan by a common slide valve, to exhaust the steam into the exhaust passages, and vice versa, and to set on and stop the engine, thus making it the best adapted oscillating engine for steamboats yet invented.

The rotary engine of Mr. Barrows, was the one that was used in his boat for a considerable period, and which had seen a deal of rough service. It is built to work the steam expansively, by fixed head plates, having eccentric grooves in their inside faces, which guide friction rollers on the end of the blade or piston bars, so as to depress them in slots, and guide the pistons out and in, to allow the steam to expand in four separate chambers on the periphery of an inside revolving drum. This engine met with a misfortune at the Fair, inasmuch as some person tried to stop it by using a crowbar for a lever, prying on the shaft, whereby the metallic packing was thrown out of one of the piston ends. It is wrong for men to be trying experiments without knowing what they are doing. A dynamometer alone can measure the power of a machine. We examined the inside of this engine after it was taken down, and for all the hard usage it had received, the inside wear of it was but small indeed.

The model of Mr. Barnum is constructed upon a new principle, to use the steam to its utmost useful attenuation, and to have an equal motion at the same time. The improvement consists in having two cylinders of the same size coupled to one shaft, with the cranks set at about 60 degrees to one another, and the steam is received into one cut-off at half stroke, let on by a valve into the other, thus expanding in both to nearly four times its original volume, and providing a good even motion. An engine has been some time in successful operation in Messrs. Rodman's foundry, this city. Our engineering readers will be able to form a very good idea of what is new in these engines, and as the steam engine is the most important *primemotor* in the world, everything connected with it is of great interest to all men.

SELF-ACTING SWITCH FOR RAILROADS.—Mr. Jones exhibits, in the machine room, a working model of a self-acting switch; the switch is operated by having an inclined projection on a joint of rail, which is operated by a friction pulley on a shaft placed on the engine under control of the engineer. There is the same arrangement on two sides for an up and down train. The pulley presses down upon the incline of the rail which is connected below with the rail to be shifted by bellcranks and levers, which at once shift the rail before the locomotive comes up, thus dispensing with a switch-tender. We have seen a number of self-acting switches, constructed to operate upon nearly the same principle. We are not aware of any being in actual use, nor can we tell if they have been sufficiently tested. Have engineers discovered a defect in their principles of construction, or are they only prejudiced against them?

OLD FACES.—It is a pleasant thing to meet with old well-known faces, and among the propelling improvements exhibited, we noticed an old-fashioned pocket watch, which has stood at every Fair within our memory. We suppose that its admirable qualities are yearly presented to command that admiration which no man feels, and never will.

COLORING PHOTOGRAPHS.—In the lecture room are some beautiful Daguerreotypes, and among them we were particularly struck with some colored photographs by Messrs. Kroehl & Vetter, No. 499 Broadway, this city; they are beautiful pictures, and resemble correct oil painted miniatures more than sun drawn likenesses. They are really a credit to our city and the talented artists who produced them.

SELF-ACTING GENERATING GAS AND BOTTLING MACHINE.—A very ingenious and beautiful machine for generating gas for soda water and for bottling the water, is exhibited by Mr. William Gee, 66 Gold street.

SEWING MACHINES.—Quite a number of these machines were exhibited last year.—There were two this year—both were in the gallery. The one is E. Howe's, the original one for sewing with shuttle and needle, (two threads), and patented in 1846, as noticed in Vol. 2, Scientific American. The other is Singer's Sewing Machine, which is illustrated on our first page this number. It is near to that of Mr. Howe's.

RAILROAD CAR SPRING.—A railroad car spring made of prepared wood and metal, was exhibited by Mr. Bissel, on the bridge. It is a good spring, but it rather amused us to see it illustrated in a contemporary last week, "with its head where its feet should be," and in such a position that it would not stand the strain of a good sized boy pressing on the lever. This, however, is to be expected from papers which are conducted by men who know as much about machinery as an Esquimaux. It is enough to destroy the character of any good invention, thus to place it in a false place and wrong position.

BELLS.—There was a fine set of bells manufactured by Andrew Meneely, of West Troy, N. Y. Their chimes, on last Saturday, sent forth the mournful notes that Andrew Meneely was no more. He was a man of great energy and greatly esteemed as a lover of his fellow men, and a subscriber to such papers as the Sci. Am.

ICE CREAM FREEZER.—Messrs. Smith, Torrey, & Co., No 50 Maiden Lane, had on ex-

hibition Messer's Patent Freezer, illustrated on page 60, Vol. 5, Scientific American. By the aid of this easily operated and beautiful invention, ice cream was made during the summer, as we learn, in the incredible short space of five minutes. We need not explain this contrivance, as most of our readers can refer to it; we would, however, add that parties who may wish to purchase machines, or negotiate for rights, can apply as above.

On last Saturday evening the Fair closed with a short address by the Hon. Henry Meigs and the following is the list of gold medals awarded.

Dorastus Kellogg, Skaneateles, N. Y.—for the best specimens of Cassimeres.

D. Rodman, Albany, N. Y.—for the best Merino Cassimeres.

Duncan & Co., Franklin, Essex Co., N. J.—for the best Piano and Table Covers.

Wamsutta Mills, New Bedford, Mass.—for the best Bleached Shirtings.

New York Mills, Oneida Co., N. Y.—for the best Bleached Jeans.

A. W. Sprague, Providence R. I.—for the best Prints.

James Roy & Co., Watervliet Mills, N. Y.—for the best Woolen Shawls.

Duncan & Cunningham, Franklin, N. J.—superior Embroidered Shawls.

Griswold & Co., Troy, N. Y.—for Velvet and Tapestry.

J. W. Farnam & Co., Cohoes, N. Y.—for the best Plain and Satin finished Linen Thread.

Steele & Co., New York—for excellent specimens of Feather Brushes.

James H. Grovesteen, New York—for the best Piano Forte.

Waterville Manufacturing Co., Waterbury, Conn.—for the best Pen and Pocket Knives.

Lampson, Goodnow, & Co., Shelburne Falls, Mass.—for the best Table Knives and Forks, Dishes and other Knives.

Baldwin & Many, New York—for the best Mounted Door-Knobs.

Williams & Dinger, New York—for the best Carriage.

John H. Wood,—for the best Leather-top Wagon.

John Russel, New York—for a case of Files of superior quality.

Waterloo Brass Co., Waterbury, Ct.—for superior Brass Kettles.

R. Hoe & Co., New York—for a frame of very superior Saws.

Mr. Steers, New York, for a model of the Yacht "America."

Smith & Diamond, New York—for the best Model of a Steamship.

Emery & Co., Albany, N. Y.—for the largest, and a very superior collection of Agricultural Implements.

Eddy & Co., Union Village, Washington Co., N. Y.—for an improved Threshing Machine.

Eddy & Co., Union Village—for a 20 foot Horizontal Horse-Power.

Richard J. Gatling, Indianapolis, Ind.—for a very superior Wheat Drill.

Brooklyn Flint Glass Co.—for the best Venetian and Bohemian Glassware.

L. D. Gerardin, Jersey City—for the best Decorations on Porcelain.

Alexander Young, New York—for the best Terra-Cotta Ware, and Building Ornaments.

Woodward, Blakely & Co., East Liverpool, O.—for the best Rockingham Ware.

M. A. & S. Root, New York—for the best Daguerreotypes.

C. C. Harrison, New York—for the best Daguerreotype Cameras.

Henry Fitz, New York—for an Equatorial Telescope.

H. S. Farley, New York—for a fine specimen of Cement Marble.

G. Borden, Jr. New York—for a specimen of a new and valuable article of food, called the "Meat Biscuit," and for very fine and pure Beef Lard, being a substitute for ordinary Lard—made in Texas.

Thos J. Burger, New York, for fine specimens of Saltpetre.

Geo. Brodie, New York—for the best Cloaks and Mantillas.

World's Safe Co., Troy, N. Y.—for Safes made from Chilled and Cast iron, impenetrable to Burglars.

Platner & Smith, Lee, Mass.—for very superior Letter and Ledger paper.

Silas C. Herring, New York—best Fire Proof Safe.

J. W. Anderson, New York—for the best specimen of Casting in Bronze.

Thos. F. Hoppin, Providence, R. I.—for a model of Dog, "Sentinel."

Mrs. A. D. Frye, New York—for the best specimens of Algæ.

S. H. Shiddle, Lexington, Ky.—for a beautiful Bale of American Dew-Rotted Hemp.

I. M. Singer New York—for the best Sewing Machine.

Wanton Rouse, Taunton, Mass.—for a Cop-Spinner.

James Judson, Rochester, N. Y.—for the best Governor Valve.

S. Stow, & Co., Southington, Ct., for the best set of Tinman's Tools.

E. B. Clayton & Sons, New York—for a labor-saving Numbering machine.

Roy & Wilcox, Berlin, Ct., and Francis Blake, Boston—for Flander's Rotary Shears.

J. P. Stillman & Co., Westerly, R. I.—for a Self-Stripping Machine.

F. J. Austin, New York—for the best paper-Cutting Machine.

Samuel House, Boston Mass.—for a Water-Metre.

J. B. Tarr, Albany, N. Y.—for a powerfully constructed Fire-Engine.

G. H. Penfield, New York—for a superior Breach-Loading Rifle, Sharp's Patent.

Newell & Day, New York—for the best Bank Lock.

F. B. Pye, New York—for the second-best Bank Lock, with Chronometer attachment.

Mirror Mantel Co., Boston Mass.—for a Mirror Mantel.

James Lenghi, New York—for the best specimen of Statuary Marble Mantel-Pieces.

Total number of Gold Medals, 59.

VAN SCHAICK MEDAL.—For the best specimen of Raw Silk, John M. Summy, Lancaster Pa.—the Van Schaick premium of \$10 and a Bronze Medal.

Locomotive Prizes.

The following are the list of prizes awarded to the locomotives tried at the recent Fair at Lowell.

To John Howe, Jr., Agent of the Brandon Works, a silver medal, for Mowry's carriage coupling.

To the Addison Gilmore, from the Western Railroad, a gold medal for best time made.

To the Nathan Hale, Boston and Worcester Railroad, a silver medal for the second best time made.

To the Dedham, from the Boston and Providence Railroad,—for the peculiar arrangement of the engine and tender, and for the drawing apparatus, which increases the adhesion, with increased load or increased draft, on inclined planes, a silver medal.

To the Milo, Freight Engine, from the Boston and Lowell Railroad, for the best performance according to the prescribed rules,—a gold medal.

To the St. Clair, freight engine, for the second best performance,—a silver medal.

The Judges were Wm. P. Parrott, Boston, chairman, Prof. Pierce, Cambridge; J. Hinckley, of Lowell, and Geo. W. Corliss, of Providence, R. I.

Quince and Apple Preserve.

Our friend Myrick, of the United Society of Shakers, Harvard, Mass., has favored us with a bucket of quince and apple preserve, which surpasses anything of the sweetmeat kind we have had this season.

The post office address of the Harvard Society is South Groton, Mass.

Any of our friends desiring choice sweetmeats of any description, done up in the best manner, can have their orders filled by addressing a line to E. Myrick, at the above post office. Orders filled by express.

There is an interesting Patent Case now being tried in Albany, N. Y., before Judge Nelson, relating to the famous McCormick Reaper.

By the latest news from Europe, England was on the tiptoe of expectation, awaiting the arrival of Kossuth. He will soon be in America.