

THE PARIS EXPOSITION—OFFICIAL LIST OF THE AWARDS TO AMERICAN EXHIBITORS.

The following is an official list of awards to Americans by the committees of the Grand Exposition, as sent by the Atlantic Telegraph. Of course it may be expected that some errors have occurred in its transmission. The names are given in the order in which the report will be made.

GRAND PRIZES.

M. Chapin, Lawrence, Mass.—Well-conducted Factory. Prof. Hughes, Kentucky—Printing Telegraph.

GOLD MEDALS.

Stelway & Sons, N. Y.—Pianos. Chickering & Sons, N. Y. and Boston—Pianos. S. S. White, Philadelphia—Artificial Teeth, etc. H. D. Walbridge, N. Y.—Minerals from Idaho. J. P. Whitney, Boston—Minerals from Colorado. Louis Trager, Concordia Parish, La.—Cotton. Victor Meyer, Concordia Parish, La.—Cotton. C. H. McCormick, Chicago—Mowing Machines. W. Wood, Hoosick Falls, N. Y.—Mowing Machines.

SILVER MEDALS.

Fred. E. Church, N. Y.—Oil Painting. M. M. Ritchie, N. Y.—Photographs. Mason & Hamlin, N. Y.—Organs. J. K. Barnes, Surgeon-General, U. S. A.—Military Surgical Apparatus. S. D. Tillman, N. Y.—Tonometer. Mrs. Rich'd F. Bond, Boston—Astronomical Instruments and Chronometers. R. B. Toiles, Anastota, N. Y.—Microscope and Telescope Glasses, Eyepieces and Telescope. Wm. Wales, Fort Lee, N. J.—Microscopic Object Glasses. J. R. Brown & Sharpe, Providence, R. I.—Measures, Gages, etc. Tink Y. Man, Co. N. Y.—Br-nizes. New York Mills, N. Y.—Fine Muslins. Clark Thread Co., Newark, N. J.—Thread. S. Fournier, New Orleans—Regulating Telltale Clocks, etc. Webster Woolen Mills, Webster, Mass.—Woolen and Cotton Fabrics and Jacquets, etc. J. L. Hays, Boston—Series of Woolen Fabrics. E. C. Hart, N. Y.—Machine Sewed Boots and Shoes. Colt's Patent Arms Man. Co. Hartford, Ct.—Colt's Fire Arms. E. Remington & Sons, Ilion, N. Y.—Military and Sporting Fire Arms. Smith & Wesson, Springfield, Mass.—Fire Arms and Metallic Cartridges. Windsor Man. Co. Windsor, Vt.—Fire Arms. Spencer Rifle Co. Boston—Spencer Rifles. Douglas & Co. Boston—Axes, etc. J. B. Taft, Chester, Mass.—Emery stone. State of Illinois—Cereals. J. B. Picou, San Francisco—Collection of California Minerals. Prof. W. F. Blake, San Francisco, Cal.—Minerals. Bigelow & Co. Boston—Coffee. Park Brothers & Co., Pittsburgh, Pa.—Edge Tools. F. S. Pease, Buffalo, N. Y.—Oils. Grafton & Co., Louisiana—Cotton. A. Delplit & Co., New Orleans—Tobacco.

BRONZE MEDALS.

D. Appleton & Co., N. Y.—Books. Houghton & Co., Riverside, Cambridge Mass.—Books. G. & C. Merriam, Springfield, Mass.—Automatic Boiler Feeder Co., Philadelphia—Boiler Feeder. Jessup & Moore, Philadelphia—Paper. W. F. Murphy & Sons, Philadelphia—Blank Books. American Lead Pencil Co., N. Y.—Lead Pencils. A. G. Day, Seymour, Conn.—Invisible Lead Pencils. Second Man'g Co., N. Y.—Ribbons Hand Stamp. L. W. Fairchild & Co., N. Y.—Gold Pens. Sigismund Beer, N. Y.—Stereoscopes. Geo. Gemunder, N. Y.—Viollins. Schreiber Cornet Man. Co., N. Y.—Brass Instruments. E. D. Hudson, N. Y.—Artificial Limbs. Johnson & Lund, Philadelphia—Artificial Teeth. Cummings & Sons, Hospital Car. C. Abbey & Sons, Philadelphia—old Leaf for filling teeth. Milton Barlow, Midway, Ky—Plane. A. J. Johnson, N. Y.—Family Atlas. J. B. Lyon & Co., Pittsburgh—Glass ware. W. H. Townsend, N. Y.—Oil-cloth. Tiffany & Co., N. Y.—Silver Ware. Pratt & Wentworth, Boston—Cooking stoves. Wright & Co., Philadelphia—Perfumery. The Hadley Co., Holyoke, Mass.—Spool Cotton. S. Slater & Sons, Webster, Mass.—Cotton goods. H. Sturzburg & Co., N. Y.—Beaver cloths. Mission Woolen Mills, San Francisco—Blankets, flannels, &c. F. Sauche & Sons, Philadelphia—Fine Shirts. H. Haupt, Philadelphia—Steam drill tinning machine. Deere & Co., Moline, Ill.—Steel Plow irons. J. G. Perry, Kingston, R. I.—Mowing machine. Partridge Fork Works, Leominster, Mass.—Spading and manure forks, &c. Morris Tasker & Co., Philadelphia—Wringing machine. D. H. Goodell, Antrim, N. Y.—Apple pare. Hazzen & Graftin, Dayton, Ohio—Tobacco cutting machine. W. & D. Douglas, Middletown, Conn.—Pumps. Howe Scale Co., N. Y.—Scales. L. E. Olmstead, Stamford, Ct.—Frio-tion Clutch Pulley. T. R. Tucker, N. Y.—Governor of Steam Engines. J. B. Root, Boston—Steam Engine. P. H. & M. Roots, Connorsville, Ind.—Rotary Blower. Shaw Union Air Engine Co., Boston—Hot Air Engines.

HONORABLE MENTION.

C. K. Landis, Vineland, N. J.—Model. Willard & Co., N. Y.—Objectives. Wm. Sells & Co., N. Y.—Artificial Limbs. Robert. Bates, Philadelphia—Instrument to Cure Stammering. George Davidson, Washington, D. C.—Sextant. Peter Glass, Boston—Mosale Inlaid Center Table. G. W. Chipman, Boston—Carpetings. Howell Brothers, Philadelphia—Paper Hangings. New Haven Clock Co.—Clocks. Kaldenberg & Son, N. Y.—Meerschbaum Pipes. Bell & Co., Alabama—Muslins. Williams Silk Co., N. Y.—Silk Twist. Washington Mills, Boston—Shawls. Lintlum & Co., N. Y.—Spring Overcoats. J. C. Zallee, St. Louis—Men's Clothing. State of Alabama—Cotton.

Montague & Carlos, Louisiana—Mosses. F. S. Cozzens, N. Y.—Cigars from American Tobacco. Bourgeois & Co., Louisiana—Tobacco. D. J. Brown, Boston—Leather. C. Korner, N. Y.—Leather. H. Hiden, Boston—Sifter. Metropolitan Co., N. Y.—Washing Machines. J. Ward & Co., N. Y.—Washing Machines. S. T. Bacon, Boston—Baking Machine. J. Prentice, N. Y.—Cigar Machine. Empire Machine Co., N. Y.—Sewing Machines. Stephenson & Son, N. Y.—Horse Cars. Chas. Wellman, N. Y.—Saddles. E. Page, N. Y.—Cans. Portland Packing Co.—Canned Food.

THE ENGINEER SAYS:— "Although our Brother Jonathan, impeded by the great distance which his wares have had to travel, has sent but a very small quota to Paris, he has made an admirable selection in what he has sent. We doubt if any nation in proportion to the amount of its exhibit, shows more elaborately and really well-finished workmanship, and certainly none has the imprint of vigorous inventive genius more clearly marked on its productions. Almost every machine and engine exhibited in the main gallery by the United States, has some special peculiarity stamped upon it which, whether it be really an invention or improvement, or only a questionable modification, at least shows the extraordinary activity of North American thought." As a commentary on the above, we may add a report from Commissioner Beckwith to the Department of State, showing that of the 524 United States exhibitors at Paris, 262, or exactly one-half, received honorable awards. These awards include 4 grand prizes, 17 gold medals, 52 silver medals, 103 bronze medals, and honorable mention of 79 exhibitors.

Exposition Notes.

SHAW'S HOT-AIR ENGINE of 20-horse power, exhibited in an annexe or shed of its own in the park, continues to work regularly, and to attract a good deal of attention. An indicator has been fitted, and diagrams have been taken which show that the engine performs well relatively with the fuel consumed—a promising result in a new engine so widely removed in all essential points from engines of the usual character. ONE of the most valuable institutions of Paris is the asphaltum with which the footpaths and roads are made. The London asphaltum, whether for footways or roadways, has been a complete failure, whereas the Parisian is a most eminent success—a result not imputable to the nature of the traffic so much as to the nature of the composition. The asphaltum used for the footways after being heated very hot by a fire applied to a cylindrical vessel, with trunnions at the ends, so that it may be tilted and the contents poured out at a large square bung-hole by rotating it by a worm-wheel upon the trunnions, is emptied into buckets, and is spread by hot irons. Whereas that used for the roads is a brown powder consolidated by hot iron rammers, and the surface is smoothed by hot irons, and is finally rolled by a heavy iron roller. The asphaltum thus laid is durable, the traction upon it nearly as easy as upon a railway, and one material benefit is that there is hardly any noise.

WE ARE informed that a trial is shortly to take place between French and English guns against French and English armor-plate targets. At this competition, unless the present rules be relaxed, no naval or military officer belonging to either country, with the exception of such as may be nominated jurors for the contest, nor any representative of the press, will be admitted. It is to be hoped, however, that such an absurd rule will be rescinded, and that the public will be permitted to enjoy an equal opportunity of judging for themselves the results of such a contest as is afforded in the case of all other competitive tests of articles or machines in the Exhibition which require such proofs in order to ascertain conclusively their relative merits and advantages.—Engineer.

A FRENCH CHEMICAL PRINTING MACHINE is exhibited, printing manifold through prepared paper, without ink, in red or black, and bringing the types into operation by means of keys, with great rapidity. According to the London *Printers' Register*, the specimen on exhibition contains one hundred and forty-five letters in seven different kinds of types and two colors—red and black—composed, and one hundred copies printed, all in three minutes. The printing was done in thirty-two seconds, and the machines appear to be chiefly intended for cards and bills, letter heads, etc. The colors are good and well printed.

AMONG the carriages are two droska those uncomfortable Russian hackney carriages in which the driver and his "fares" sit in single file astride a longitudinal bench supported on four small wheels.

THE ONLY artillery exhibited in the American court is a Gatling's and a Ferris gun, the latter of which is a polygrooved rifled breech-loader, throwing a ball of 3-lb. weight with a charge of 24 oz. of powder. By the side of this gun is a small piece of iron plate 3-in. in thickness, composed of three 1-in. plates bolted together, and through which are several perforations made by shot fired from the gun at 50 yards distance. The total range of this gun, at an elevation of 35 degrees, is stated to be nine miles.

Editorial Summary.

THE HYDRO-PNEUMATIC HOIST, recently patented in England, is an apparatus in which the chain, with a hoisting cage at each end, passes over two sheaves, so that each cage ascends while the other descends. The power is applied through the medium, alternately, of the weight and buoyancy of a bell-shaped counterweight moving like a piston in a vertical pipe filled with water. The weight being adjusted so as in descending to lift the load of one cage, the cage itself being balanced by the other and descending cage, on reaching the bottom of the pipe, it is pumped full of air, its capacity being also so adjusted that its buoyancy when filled with air shall be sufficient to lift the load of the other cage. The mode of braking, is by gradually contracting the space for the passage of the water between the sides of the pipe and the bell-shaped weight. The weight can be so geared as to lift the load through twice the distance travelled by the weight.

IRON ETC.—A co-operative foundry has been established in Rochester. The organization has purchased the Novelty Works, for the sum of \$80,000.—The Shepard Iron Works, of Buffalo, have recently built an engine for the City Water Works, cost \$40,000, beams, 22 feet long, fly wheel 24 feet in diameter, and 40 tons in weight.—The Arms Company, of Newburyport, are manufacturing machines for carving wood, marble, stone and copper.—The Providence Tool Company have contracted to furnish the Swiss Government with 15,000 Peabody rifles and to alter 44,000 muzzle-loading muskets to breech-loaders.—The rolling mills recently started at Portland have orders for six months ahead. They turn out about 1,000 tons of railroad iron per month, one-half of which is taken by the Grand Trunk Railroad Company.

A STEEL SCREW PROPELLER, one of the first we believe of any considerable size, has been cast by Messrs. Naylor, Vickers & Co., of Sheffield, and is really a very fine piece of work considering that it is a first attempt. The screw is three-bladed, 10ft. 2in. diameter, and 2ft. pitch, and weighs 1 ton 13 cwt. 3 qrs.; a cast iron propeller of the same dimensions on the sister boat Leeds, weighing 2 tons 12 cwt. 2 qrs.; representing 13 cwt. 3 qrs. in favor of steel. The steel screw might have been lighter, but Mr. Brettell, chief of the marine department of the company, for whom it was made, feared to reduce the proportions too much in the absence of further experience.

HYDRAULIC PROPULSION.—It is more than likely that the system of propelling by means of centrifugal pumps will prove very successful in its application to canal boats. The North Moor Foundry Company are now engaged in executing an order for fourteen boats, each about 40 tons burden, the whole of which are to be propelled on the above system.

THERE are now 400 mills for crushing quartz and cement in California, 40 in Idaho, 30 in Montana, and 14 in Oregon, which have cost nearly \$10,000,000 dollars.

EXPERIMENTS (says the *Out*) are being made by the French Government upon a system of construction for cannon, by which the interior is made of steel and the exterior of bronze. This plated cannon is expected to give the greatest amount of wear with the least risk of explosion.

OZONE.—In another column we publish a notice of an English Patent, issued sometime since, for decolorising sugar by means of ozone. The general apparatus employed for this purpose consists of a number of flat sheets of glass, coated with tin-foil, and piled one on the other, but slightly separated. Each plate represents a Leyden jar, and when the whole number are electrified, a stream of air forced through from one end to the other becomes so strongly ozonised that breathing it is painful and dangerous. The stream of ozonised air thus produced can be used for bleaching and other chemical purposes.

A PORTABLE COMPRESSED ATMOSPHERE, similar to Gallibert's, is carried by the divers of the American Submarine Company, dispensing with all communication with the general atmosphere, both for the sustenance of life and of combustion within their lamps. The compressed air in the reservoir is also, by turning a cock, allowed to expand into and distend a pair of floats attached to the diving dress, by which the diver can ascend to the surface and float, head and shoulders out of water. A charge of air will last under water about four hours.

EXPERIMENTS have proved that if magnesium ribbon is pressed broader and thinner, and by this means made to present a larger surface to the oxygen of the atmosphere for the same weight of metal, it burns much more steadily and surely.

BUSINESS AND MANUFACTURING ITEMS.

RAILROADS, ETC.—The Boston, Hartford and Erie Railroad Co. intend to establish coal deposits at all the stations on their road, from which residents in the vicinity can procure their supplies at moderate prices.—The Western Railroad is altering its heavy freight engines to coal burners, at its shops in Springfield.—Dull & Gowan, the new contractors on the Hoosac tunnel, will immediately put on a force of 200 men, so that the work will be carried on night and day. They will also sink two shafts, that the excavations may be made from six faces at the same time.—New Haven has voted, \$326 to 473, to subscribe \$200,000 to the capital stock of the New Haven and Derby Railroad.—The Chicago, Rock Island & Pacific Railroad Company has been mortgaged to John A. Stewart and Wm. H. Osborn, of New York, for the sum of nine million dollars. The revenue stamps amounted to nine thousand dollars.—The land telegraph from Gainesville, Florida, to Punta Rosa, and which will there connect with the marine cable to Cuba, is finished. The line, 275 miles long, was built in 37½ days. It will be connected with the Western Union Line at Lake City, Florida, and a line will be built to connect that place with Savannah and Georgia. The submarine cable Cuba will be laid in July.—A company of Eastern iron manufacturers have gone on an excursion to the mining regions in South East Missouri. They propose to furnish \$800,000, if the people of St. Joseph will subscribe \$300,000, and finish the St. Joseph & Council Bluffs Railroad by January next.—The work on the Chicago tunnel has been stopped by the caving in of the whole structure.—The Hudson River traffic, for the first time in several years, is excited by high competition for freight and passengers. The Athens "cut off," a new branch built by the Central Railroad Company, from Schenectady to Athens, on the Hudson, was opened in May for passenger traffic, the magnificent palace steamers *Drew* and *Dean Richmond* of the People's Line, running in connection with the trains. The same concern continue to run their Albany boats as usual, but the Troy line, consisting of the *Connecticut* and *Hero*, wages an old fashioned opposition and has knocked down the fare, step by step, to fifty cents from New York to Troy. In freight, the Hudson River Railroad endeavors to head off the Athens "cut off," by reductions in rates, but the steamers have the cheaper highway.—A new way to use steam on canals without agitating the water, is under trial at Buffalo, with a view to the formation of a company to apply the plan throughout the Erie Canal. A steel wire cable, stretched from point to point, takes a turn around a drum worked by steam on the deck of the vessel, which is thus quietly propelled.—Bergen Cut, between Jersey City and Newark, is to be laid with steel rails; preceding trials having satisfied the company of the economy of the change, which will probably be carried gradually throughout the line to Philadelphia.—The Summit Tunnel, on the Pacific Railroad, is progressing at the rate of sixty feet a week, at four points, and at this rate will be completed by the middle of August.

MISCELLANEOUS.—About 200,000 quarts of strawberries are brought to New York every day from New Jersey and other places South. The sales of strawberries at Vineland amount to \$2,000 per day. A farmer near Salem, Ill., sold his strawberry crop of forty acres, to parties in Chicago, a few days ago, for \$50,000.—The editor of the *California Farmer* acknowledges a present of a lot of large and delicious oranges from a tree which had 464 oranges on it on the 18th of January, and has 100 left, while its top is covered with the blossoms of another crop.—The Peruvian Government contracts with a firm in Philadelphia for 1,200,000 bags a year for packing guano.—The Internal Revenue Department in the first days of the vigorous enforcement of the new whisky law condemned 57,300 gallons of whisky, besides about 250,000 gallons under seizure.—Western farmers are crowding their grain to market. In Delaware county, Iowa, the price of wheat fell within a few weeks from \$2 25 to \$1 50.—The Chicago City Directory this year, about to be published, contains 89,183 names, being an increase of 12,589 over the number contained in the Directory of last year. The rule in cities, to ascertain the total population, is to allow three persons to every name enumerated in the Directory. According to this rule Chicago now has a population of 267,389.—Forty steamboats bound for Fort Benton, Montana, laden with a hundred and twenty thousand tons of freight, have passed Sioux City, Iowa, this season.—The annual report of the Merrimac Manufacturing Company shows dividends to the amount of 25 per cent, a reserve fund of \$515,079 61, and stock on hand \$341,248.—During May the aggregate losses in the United States, caused by fire, each involving a loss of at least \$20,000, were \$2,120,000. The aggregate losses during this year, thus far, have been \$16,528,000. From 1839 to 1861 inclusive, the average losses by fire in the United States were about eighteen millions of dollars per annum, while in 1865 they rose to \$48,000,000, and in 1866 to \$100,000,000. It is supposed that \$50,000,000 insurance was paid during the last year for incendiary fires.—Most of the silk manufacturers of New Jersey return no incomes, and the cotton profits are returned very much reduced. At the Clover Hill coal mines, in Virginia, the fire has been extinguished, and the preparations to resume work are being made rapidly.—The *Liverpool Advertiser* says that negotiations are pending for the formation of a new and influential company, with a large capital to run the *Great Eastern* between New York and Great Britain, in connection with the Paris Exhibition, as it is believed, the failure of the first company, there are elements of success in the undertaking.

Recent American and Foreign Patents.

Under this heading we shall publish weekly notes of some of the more prominent home and foreign patents.

CASE FOR HOLDING PRESERVED MEAT AND OTHER SUBSTANCES.—E. C. Dawson. October 12, 1866.—In performing this invention the case is composed of wood, and is lined with plaster of Paris, so as to protect the preserved meat or other substance from the action of the air. After the preserved meat or other substance has been packed in the case, a covering of paper, leaves, or other suitable material is placed over the preserved meat or other substance, and a coating of plaster of Paris, in a state of suitable consistency, is spread over such covering and allowed to set. The lid of the case is then fastened down in the usual manner.

PIPE FOR HOLDING AND SMOKING CIGARS AND TOBACCO.—W. Grune. Oct. 12, 1866. Having discovered that the ammonia vapors evolved when tobacco or cigars are smoked, are capable of reproducing or re-developing silvered photographs on paper, discolored or bleached with chloride of mercury, the inventor has contrived cigar or tobacco holders which will hold the papers so that when the smoke is drawn inwards the ammonia vapors will act upon the paper and cause the photograph to be developed.

APPLYING ENAMEL TO CERTAIN FRICTIONAL SURFACES.—L. R. Bodmer. Oct. 13, 1865. This invention consists in providing those metallic surfaces which are exposed to a rubbing action or friction against leather, as more especially, the guide bars for the buffalo-hide drivers or pickers, with a covering or coating of enamel, glass, or other vitreous substance, whereby the friction is reduced and the application of a lubricant rendered unnecessary.