

REPORT

OF

DR. OTTO THIEME,

COMMISSIONER OF THE STATE OF IOWA

TO THE

PARIS EXPOSITION OF 1867,

TO HIS EXCELLENCY, WM. M. STONE,

GOVERNOR OF IOWA

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## REPORT.

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On the 20th day of April, 1867, the undersigned received his appointment as Commissioner of the State of Iowa to the Paris Exposition. Ten days later he left for his place of destination.

Being without special instructions as to the particular object of his mission, he had to follow his own discretion in the gathering up of such information and data, as seemed best calculated to give a clear and comprehensive view of the Exposition, without going into tiresome and voluminous details.

This he has faithfully endeavored to accomplish, and now begs leave to submit his official report. He is fully aware of the peculiar difficulties met with in the discharge of that duty, as well as of his own inability to do full justice to the subject. The mass of matter to be contemplated is too stupendous for a full and complete review within the limited compass of a report. He will, therefore, attempt, in the most condensed form and the merest outline, to give a true sketch of the Exposition. To do this, it is necessary to understand the fundamental idea of the whole, to obtain a systematic view of its arrangements, to notice the peculiarities wherein each individual country excelled, and to give particular attention to all such matters as would appear to be of special interest our people.

He submits, at the same time, a complete catalogue of the Exposition, and a number of prospectuses, for reference.

The Paris Exposition of 1867 was, without question, the most comprehensive and stupendous of all similar undertakings. The Exhibitions of 1855 (in Paris) and of 1862 (in London) were grand affairs, but, in importance, could hardly be compared with this last and most wonderful enterprise. Its great advantage consisted in

this, that all parts of the globe had contributed, not only through their products and manufactures, but also in history, science, art and natural history, something that has become possible only since the circumnavigation of the earth has been reduced to a mere journey of pleasure. The characteristic tendencies of the present age, education, the care for the welfare of the laboring classes, the improvements in domestic architecture and the cultivation and adornment of the soil, and particularly the closer alliance of science and handicraft, art and industry, were not at all represented in former exhibitions.

The object on this present occasion, was to obtain a grand view of the achievements of human progress in all its branches. The peculiar productions of every nation were to meet in peaceable competition on the Campus Martius. The nations were to assemble for the better understanding of their several interests and the establishment of closer and eventually benefitting relations. All the manifold productions of human industry were to be brought together in one grand fair, to show the degree of progress reached by each nation, and thus give a grand general picture of the civilization of our globe. A German author says very truly, of these Expositions: "They are migrations of the races in the spirit of the Nineteenth century, not terrible in their devastations, but fruitful in their instructing and stimulating effects. They are crusades for the good cause — peace among the nations."

And they are not only a complete mirror of the present condition of the nations. They also give an interesting part of the history of mankind. Patriarchal, feudal, monarchical and republican institutions have impressed their widely different marks on the articles on exhibition. We trace the history of progress from the bassock of the savage to the most delicate lace; from the arrow and club to the needle-gun and rifled cannon, from the artless and primitive bark canoe to the wonderful monitor; from the hand-mill to the steam-mill; from the first attempts in writing to the modern telegraph and powerful printing press, from the grotesque creation of savage fancy to the master pieces of art; the flowers of the wealth and culture of the present age.

The wonders of the world have become of daily occurrence. The

human mind, everywhere, copes and battles successfully with brute force. A long and winding road had to be travelled before this goal could be reached. Specimens from the stone, the iron and the bronze ages demonstrate how tedious and slow this progress was. To-day no more inventions are lost. Industry and agriculture, argus-eyed, are ever on the alert with energy and sagacity, to make all new ideas useful and tributary to the good of mankind. Manual labor has almost everywhere given way to the strong and untiring arm of the machine. This tendency of saving labor and power is an unerring indication of the progress of civilization. The very oldest nations even have endeavored to learn the great secret of nature: unity of the beautiful with the useful. We find tools from the caves and peat-bogs in France, neatly engraved, and thus trace the connection between handicraft and art. It is the office of the Exposition to demonstrate the history of progress from the first *group*, the objects of art, to the tenth *group*, articles calculated to further the moral and physical well being of man, and thus to improve the moral and physical status of mankind.

This last mentioned group of articles was very scantily represented on former occasions, while, in the last Exposition, it formed the most important and most interesting part, the sum and result of the whole. Here we find everything that relates to education, the homestead, the work-shop, the community. We find furniture, clothing, models of houses, products, tools, &c., &c., arranged in systematic order, according to their usefulness and cheapness. The fundamental idea of the Exposition, then, which is thus demonstrated, is a happy and far-reaching one: the devotion of art and science to the improvement and welfare of mankind, the blending of idealism and materialism, the solution of the great social problem.

The Exposition, owing to its well matured plan, can not fail to exercise an important and salutary influence on the future progress of mankind. And it is due to France to admit, that in this connection she maintained her position, as one of the great Powers, very creditably. The Emperor of the French, not always successful in his military exploits, had adopted the motto: "The Empire means peace." He had promised his people this grand competition

of all the nations of the earth with their productions, both of nature and of man. Their hopes and expectations must not be disappointed, nor blasted by threats of war. And, hence, the peace of Europe was guaranteed, as long as the portals of the Palace, like those of the Temple of James in ancient Rome, remained open. France hesitated to throw her sword into the scale, thus avoiding universal war, which would otherwise have been inevitable, and perhaps, her own humiliation also. Thus the Exposition has been of vast political influence.

Commerce and trade also have felt this influence. No less than seven millions of people are estimated to have visited the French capital during the Exposition. Commercial relations will be multiplied in every direction. The occasion has been improved to study the great mercantile interests, and to learn from each other. The merchant, quick to perceive and ready to turn to account, can not fail to return with expanded views from this mart of the world, where almost every step leads him into another country, from antipodes to antipodes, and the riches of all nations may be encompassed in a single glance.

The costs of the arrangements for the Exposition have been immense. The original capital of twenty millions of francs had to be considerably exceeded. The mere drainage of the Campus Martius, formerly a waste and barren drill-ground, required no less than a quarter of a million. The work done here was simply enormous. Hills were levelled and others raised up; ponds were dug out, artificial caves and grottoes built, and the whole transformed, as if by magic, into a beautiful landscape, with trees, flowers and green-swards.

It was interesting to notice how speculation took possession of everything, which promised to be profitable. A few items may suffice in illustration. A photographer paid 400,000 francs for the exclusive privilege of plying his vocation in connection with the Exposition. A publisher had to give 600,000 francs for the copy-right of the catalogue of the Exposition, a volume of 2,200 pages. For the privilege of posting bills on the outer walls the sum of 80,000 francs was paid.

The Palace proper embraces an area of 146,000 square metres, while the Park surrounding the same covers 300,000. The building, a structure of iron and glass, without stories, and taking its light from above, probably the grandest of its kind ever erected, is of an elliptic form, measuring 4,780 metres in length, with a width of 490 metres. The center of this tremendous hall, 56 by 166 metres, is occupied by a beautiful garden. The remainder is divided into departments by seven concentric and equi-distant *avenues*, and these again by sixteen radial *streets*. These radial *streets* are apportioned to the several *nations*, while the concentric *avenues* are reserved for the several *groups* of objects. Under this arrangement, system and order, which would otherwise have been unattainable, are greatly facilitated. The whole building is surrounded by a covered colonnade, where representatives of all nations have established refreshment stands in their own native styles. Sixteen large portals, corresponding with the radial streets, admit the visitors. The ventilation of the building and precautions against fire are perfect. Also the police arrangements. A force of 550 picked sergeants of police, and 52 detectives, secure the best of order. In addition to these, a number of municipals guard the entrances. Extensive arrangements are also made for the accommodation of the workmen of the Exposition. In short, all the appointments are excellent.

The number of exhibitors is near 60,000. The aggregate weight of the articles on exhibition is 2,800 tons. The area occupied by the several nations is apportioned as follows, viz; France 62,105 square metres; England 21,653; Holland and colonies 1,998; Belgium 7,249; Prussia and other German States 16,604; Austria 8,302; Switzerland 2,835; Denmark and colonies 648; Norway and Sweden 1,620; Greece 648; Spain and colonies, 1,944; Portugal and colonies 1,134; Danubian Principalities 648, Pontifical States 648; Italy 3,888; Russia 2,016; Turkey 1,206; Persia and central Asia 648; China, Japan, &c. 648; Brazil and South America 1,300; Africa, Australia and Southern Asia 1,148; Mexico and Central America 650; United States and Canada 2,788.

The different *groups* of articles on exhibition are arranged in the following order, beginning at the Central Garden, and contain the following branches, viz:

FIRST GROUP—*Fine Arts*.—Paintings, drawings sculpture, architecture, die-sinking, engraving and lithography.

SECOND GROUP—*Liberal Arts*.—Printing, books, paper, stationery, drawing materials, binding, photographs and apparatus, maps and instruments of all kinds.

THIRD GROUP—*Furniture*.—Upholstery, carpets, glass, porcelain, cutlery, paper-hangings, plate, bronzes, clocks and watches, lighting and heating apparatus.

FOURTH GROUP—*Clothing, &c.*—Clothing and all other objects worn on the person.

FIFTH GROUP—*Products*.—Mining industry; forestry, agriculture, fruits, chemical products, leather, skins, &c.

SIXTH GROUP—*Machinery*.—Apparatus and tools of all kinds, prime movers, engines, carriages, saddlery, railway and telegraphic apparatus, engineering and navigation.

SEVENTH GROUP—*Food Products*.—Fresh and preserved animal food, stimulants, sugars, fermented drinks.

EIGHTH GROUP.—*Farming, &c.*—Live stock, agricultural buildings, &c.

NINTH GROUP—*Horticulture, &c.*—Flowers, plants, trees, &c.

TENTH GROUP—All articles exhibited with the special object of improving the condition of the people.

We will now pass in review the peculiarities of the several countries, as represented in this Exposition of the World.

FRANCE.—Originating the plan, assuming the entire responsibility for its successful realization, and making very material sacrifices in this behalf, it was but natural that France should secure for herself the largest space for a liberal display of her products and fabrics. She has spared no pains, to appear if possible at the head of all culture and civilization. The most marvelous exertions have been made to overcome all competition in splendor and wealth. And it can not be denied that the grandeur and brilliancy of her coquetish display challenges the most marked attention. In this, the French are assisted by their remarkable fine taste, the sense for elegance of form and pleasing winning appearance. In this particular, they are certainly ahead of other nations. They may lack in solidity,

but they excel in all that is attractive, beautiful and amiable. One could not be but perfectly enchanted with their gorgeous and tasty array of fashion's most costly and showy materials.

Entering from the west side, through the so called Gate of Honor, we arrive in a large ante-room, adorned with splendid fountains of bronze, which throw their water to a marvelous height, and groups of mythological and allegorical statues of the same metal. From this, a double row of gaily decorated masts, flying the colors of France and surmounted by her eagle, leads into the Park and to the Pavilion of the Empress, a cozy and unique little building, on which all that nature and art afford seems to have been lavished. The effect of this aggregate of fabulous wealth, displayed under the most faultless taste, is magical. But we must hasten on to more practical matters.

Among the most interesting objects in this department, we notice the world-renowned porcelain vases, and similar articles from the celebrated factory of Sevres; watches and clocks in great variety, jewelry of immense value and exquisite workmanship, including the crown and other imperial insignia of France; dress goods in endless variety and of the most startling value, (as high as 300,000 francs for a single robe!) lace, artificial flowers particularly of the rich plumage of the humming-bird; furs, parasols, fans, gloves, shoes of superior finish; furniture inlaid with ivory; elegant carvings, safes, glassware and mirrors, candelabums of thirty feet in height; works in enamel, mosaic and corals, cameo-cuttings in stones and shells, and galvano-plastic productions. Particularly interesting is a collection of wax-figures, exhibiting the peculiar costumes of the several provinces of France, of the past and present ages. We next find paints and colors, paper-hangings, superior photographs, printing of rare beauty; lithography, engraving and the celebrated picture gallery, containing most excellent paintings, especially landscapes; musical instruments of great excellence, including church organs and bells; fire- and side-arms, walking-canes and whips of great elegance; cutlery, saddlery, and very gorgeous carriages of every description; rubber goods in great variety, highly ornamented meerschau pipes, ornaments in stone coal, mattresses; collections in natural history, particularly the animals, plants, &c., of the sea; wax

and stearine candles, with machinery for their manufacture; soaps, chemical preparations, instruments for scientific purposes; very excellent museums in ophthalmology and anatomy.

We arrive now at a very interesting department of the Exposition, the rooms for machinery. The motive power for the machinery in operation is furnished by ten large steam generators outside of the Palace, thus avoiding all inconvenience and danger. The noise and whirr in this department is perfectly deafening, and the variety of engines, machinery and mechanical appliances and contrivances is incredibly large. The first impression on the visitor is bewildering. We see these black, iron monsters in a mysterious and frightening activity, and can not understand why they lift and drop their powerful arms, or turn their gigantic fly-wheels. All appears to be a chaotic mass of wheels, cogs, levers, spindles, beams and shafts, some moving or turning with an awful velocity, while others work with that grave slowness, which power seems to inspire. But we soon discover plan and purpose in these motions, and wish for a thousand eyes to behold and realize all the wonders of this endless mass of victories of the human mind. This department forms, as it were, the key to all the wonders in the interior of the Palace. We learn here how all these things were produced and wrought, and perfected, from the uncouth raw material, to the most polished article—from the web of the silk-worm to the dazzling robe; from the miner's dark and dismal shaft to the matchless jewelry of the Empress.

A large proportion of this machinery is only useful in demonstrating the application of certain laws of nature for further use, such as hydraulic, pneumatic, electro-magnetic and dynamo-magnetic engines, condensators, presses, balancers, levers, &c. They are the particular objects of study for the engineer. Among other things we find every article in the line of railway work and machinery, locomotives and cars materially different from the American plan, models of railroads, freight cars, rails, turn-tables, &c. Also, locomotives which traverse the avenues of the Park without rails. In telegraphy France appears to have made great progress. Everything pertaining to that is fully represented in models, including a large relief of the whole telegraphic system of France, and submarine telegraphs

in great variety. Too much importance can not be attached to these ropes, through the metallic souls of which a message is now transmitted with lightning speed from one continent to another.

Next comes Navigation. Beautiful models of the French navy, life-saving and diving apparatus, and submarine armor, light-houses with dynamo-electric engines for the generation of the most powerful and intense light, filters for the distillation of salt water, and steam ventilators. In mining apparatus, France is also well represented. Pumps, boring-machines, hammer-works, stamps which are propelled by water wheels of 60 feet diameter, models of tunnels, shafts and viaducts, miner's tools, safety-lamps, mineralogical maps and collections of surpassing value and interest, the latest publications on mining, &c. Also iron furnaces and foundries, with their neat fabrics in different metals, including railings, ornaments, metallic coffins, &c.

Following this, we find all the appliances, materials and machinery of architecture, civil engineering and street work; forestry, with beautiful and complete collections of seeds, plants, trees, &c., and drawings and books on these subjects. Also the implements of the lumber and fisherman, with aquariums, &c.

Of special interest is the industry for the fabrication of food, with her machinery; steam bakeries, confectioneries, chocolate factories with machinery for wrapping and packing, steam cookeries, steam freezers, soda fountains, breweries, distilleries, &c. Also washing machines, machines for the manufacture of boots and shoes (worked by women who can turn out upward of two dozen pairs of boots of approved quality daily), sewing machines and machines for the manufacture of rubbers, of felt hats, hair-work, and artificial flowers. Tannery and paper-making machinery is numerous, as are also printing and lithographic presses of great excellence, machines for carving in wood and ivory, spinneries and looms. Deserving of particular attention in this connection, is the Imperial gobelin-factory. The beauty and perfection of her fabrics stands unrivalled. They resemble well-executed oil paintings. The manufacture of woolsens, silks, linen, lace, ribbons, rope, &c., is also extensively represented.

The agricultural branch of the French department is very complete and interesting, a just tribute to the importance of this field of human industry. We find complete models of farms and agricultural colleges, all the cereals in very neatly arranged sheafs, the grasses and weeds in herbariums, the root crops, the seeds, the different kinds of hay in bales, broom corn, tobacco, flax, and other useful plants, in their raw and manufactured forms; grapes and fruits, and their product, linseed oils, and the beet syrups and sugars; the wines of France, one of her great staples, in magnificent array; the products of silk culture and sheep husbandry, and the cheeses. The agricultural machines are very numerous. These, however, as well as brick machines and a host of other machines of mechanical genius, for the saving of time and labor, are decidedly inferior, in conception as well as finish, to American machinery.

We notice also pottery, works in terra cotta and artificial marble for various domestic purposes, and a laboratory for the production of artificial manure (phosphorous-guano). The pens and stables for live stock of all kinds contain some specimens of remarkable beauty. Connected herewith is a complete museum of veterinary surgery. The henneries, columbaries, apiaries, vivaries, and similar establishments are very interesting in their way. The dog family is represented in all the numerous branches and in splendid specimens.

The milk-house, buttery, and cheese factory find all proper attention and would satisfy the most fastidious.

Scattered all over the Park, we find a large number of miscellaneous establishments, belonging to the French department, which receive and merit attention. We can notice only a few, and these but hastily. Bath-houses, an insane asylum with all the modern improvements, an enormous arsenal with representations from all the branches of the destructive art and her votaries, reliefs of memorable battle-grounds and bombardments, models of military bridges, military maps, and field-hospitals with all those cunning and merciful inventions, which man has contrived to sooth, to preserve and to save.

The quarries of France are here in formidable blocks, models of mills of different construction, and machinery for ship-building, with a very ingenious model of the destructions by the ship-worm. In

this connection, we also notice a gigantic light-house of cast-iron, erected on an islet in one of the artificial ponds of the park, rearing its head to an enormous height. It is supplied with a dynamo-electric rotary light which throws its painfully intense rays to a distance of twenty-five sea miles, and, of evenings, illuminates the whole Park. The platform on the apex of this structure affords a most ravishing bird's-eye view of Paris, and her surroundings. The light-house will find its permanent destination on the island of Guernsey, opposite Dover.

Very appropriate is an immense statue of Charlemagne, the founder of the French Empire, surveying with majestic glance the wonderful development of his ancient dominion. The arrangements for concerts, theatres, operas, ballets and other amusements for the throng of visitors, are commensurate with the vast proportions of the whole undertaking.

Out of the din and bustle of this World's Fair, we now enter the *Jardin Reserve*, a tract of some five acres in extent, and reserved for the wonders of the botanic kingdom, a most agreeable change. Here the very perfection of landscape-gardening has been reached, and the effect of this artistic blending of green-sward, flowers, shrubbery, groups of trees and meandering brooklets, of artificial hills, rocks; bridges, ponds, fountains, cataracts and grottoes is truly bewitching. Whatever grand, or strange, or beautiful is to be found in the flora of all parts of the globe, has been collected in the hot-houses and conservatories of this fairy garden, and delights alike the scholar and the casual observer. We would fain attempt a more detailed description of these wonders, but space forbids.

One very prominent feature must be noticed, however,—a tremendous aquarium, which unveils to the visitor all the hidden mysteries of the briny deep. All the fishes; shell-fish, shells, jelly-fish, corals and other inhabitants of the sea, often leaving the observer in doubt, with which one of the three great kingdoms of nature to class them, live here and have their being. It is the most charming and wonderful thing ever beheld by man.

Returning from the poetry to the prose of life, we will say one word more of the restaurants, and France is done. They are charac-

teristic of the nation. The true Parisian spends the greatest part of his leisure hours in the *cafes*, the single man with his chums, the married with his wife. The appointments and peculiarities of these places are agreeable to this custom. Elegance, splendor, gentility and politeness let these people forget their daily cares, and the narrowness and scantiness of their lot in life. They make them cheerful and contented, instead of soured and morose, and the ever-obliging influences of good music render these desirable effects still more perfect.

**BELGIUM AND THE NETHERLANDS.**—Belgium excels particularly in the following branches and articles, viz: Paintings and statues, horticultural collections, a grand church organ, glass works, lace of incomparable fineness and beauty, woolen fabrics of superior finish, a great variety of locomotives, models of all the different constructions and machinery for tunnel work, and last, though not least, artificial manures.

The Netherlands send a variety of articles in navigation, agriculture, milling and wind-mills, woolen fabrics of great durability, very superior looms for their manufacture, linens which fully justify the ancient representation of that country for this class of textiles, embroideries of great beauty, a diamond-grindery of much interest, and excellent bells.

**PRUSSIA AND OTHER GERMAN STATES.**—Prussia was too much occupied with the war of last year, and the threatening attitude of affairs following its termination, and was, moreover, treated somewhat shabbily in regard to the extent of territory apportioned her. Yet, she has achieved great triumphs, and occupied a very respectable position. She sends 1,900 exhibitors. A Prussian school house gives the hint that true greatness must ever rest on popular education. Her system in this particular enjoys a merited reputation. A monster rifled cannon, from the celebrated works of Mr. Krupp, in Essen, challenges universal admiration. Weighing about 100,000 pounds, it is easily charged, handled and aimed by only two men. It has cost 130,000 thalers, and its construction required a time of fourteen months. All the powerful implements of destruction, among them steel cannon which discharge a conic explosive ball of 1,000 pounds

in weight, appear like playthings when compared with this monster, which they surround. We find here, also, large reflectors, used, literally, for throwing light on the position of the enemy at night. (It was interesting, just at this article, to meet Emperor Napoleon, King William and Count Bismarck, his wily and successful premier, jointly examining its merits.)

Remarkable are also a cast steel bell of about 30,000 pounds, ten feet in height; heavy blocks of pig iron; a Temple of Peace in Siberian marble; paintings from Dusseldorf and Berlin, of great merit; photographs and lithographs; porcelain from the celebrated works in Berlin, particularly vases in ancient style and paintings on porcelain; terra cotta, glass and bronze ware in great variety and excellent taste; gold and silver plate; clocks and lamps of surpassing beauty, a curious candelabrum of deer horn; musical instruments, rifles and guns, particularly the celebrated needle gun; safes, movable derricks, carriages, rubber goods, and locomotives; among the latter the two-thousand-pounder turned out by the celebrated works of Borsig, near Berlin.

Another evidence of the wealth of Prussia are the specimens of her mineral resources. We find iron from Westphalia, copper from the Harz, zinc from Silesia, lithographic slate from Solenhofen, mill stones, rock-salt, brown coal and amber. Of chemical productions may be mentioned the famous lac colors and cologne water. Of machinery, &c., pneumatic railroads, wood-carving machines, gas regulators, hydraulic presses, steam washing machines, button cutters, looms, sewing machines, knitting machines of great perfection, and machinery for the manufacture of needles and pins. We notice, also, very superior broadcloth, silk goods, felt for roofing, works in asphaltum, tanneries and brick machines.

The exhibition of Prussia's agriculture and horticulture is also deserving of very honorable mention, both as regards the quality and the number and variety of articles, and the artistic arrangement. Prussian seeds, bulbs and plants are becoming justly famous. It is due to say here, that her horticultural societies were of most valuable assistance, gratuitously rendered, in planning and perfecting the reserved garden of the park, above alluded to. The Prussian band is, also, entitled to great credit.



SAXONY sends famous paintings from the Dresden Gallery, splendid specimens of book and music printing, a large variety of porcelain from Meissen, rivalling the Sevres goods; glass ware, particularly buttons; wool and woolens of great merit; excellent mineral collections and mining apparatus from Freiberg and Grunthal, as well as agricultural collections. Among the latter we notice the useful fuller's thistle (*dipsacus fullonum*) which is extensively cultivated in that country.

BAVARIA predominates in fine, also, particularly oil and glass paintings, musical instruments, delicate wood carvings and bronze goods. Also toys, (Nuremberg), goods in *papier mache*, furniture and mirrors, yarns, broadcloth, embroideries, jewelry, and colored papers. A collection of agricultural implements contains models of all the different kinds of plows in use since the time of the Savior. The famous breweries of Munich exhibit all the tools, vessels and materials of their trade in grand style. A people's theatre shows all the different kinds of provincial costumes of Bavaria.

BADEN brings a rich collection of clocks from the Black Forest, long and justly famous, a few good paintings, very creditable furniture, and orchestrions. Her glass buttons are also deserving of notice. Single factories of these apparently trivial articles employ as many as 1,200 families!

WURTEMBERG is very creditably represented. Her prominent publishers have sent full collections of books of superior printing and binding. Aside from these, we notice musical instruments, gold frames, breweries and tobacco works. An interesting feature in this department is an establishment for the making of paper out of wood. In this machine, which is worked with a powerful engine, we see the raw material enter in rough billets, follow it through all the different manipulations for its reduction to pulp, and are astonished by the final issue—a very excellent quality of paper.

The smaller German States are all duly represented by some 600 exhibitors. Among their articles we find a great many very fair productions, some of surpassing value; mostly, however, they are only repetitions of the collections of larger States. We will, therefore, pass these and turn our attention to

AUSTRIA.—This otherwise distracted empire has sent all her provinces to the Exposition: Austria proper, Hungary, Bohemia, Galicia, Illyria, Tyrol, &c. They appear in every way tastefully and creditably, and their exhibition is an entire success. We find among other things, paintings, musical instruments, printing, a very remarkable museum of anatomy; splendid statues and other works in terra cotta, porcelain of great merit, wood carvings, the justly celebrated glass-wares of Bohemia (in the production of which some 25,000 persons are engaged), excellent furniture, meerschaum pipes of marvellous beauty and finish, matings, metallic coffins, tools and cutlery, walking canes, rubber goods, traveling bags and other leather goods, cotton spinneries, the model of a locomotive with hydraulic power, wooden-ware in great variety, and the productions of the forest, such as resin, pitch, &c.

HUNGARY, the granary of the empire, excels in her agricultural productions and exhibits with becoming pride her grain, fruit, wine and tobacco, as well as agricultural implements. In forestry, we find the entire tree vegetation of Austria in specimens of the largest size and very neatly arranged; minerals are also largely represented. We notice particularly the rock salt from Wiliska, and a gigantic stalactite from the famous Adelsbach cave. In the branch of navigation, we find very interesting models, including a canvass factory. Several models of wind-mills are very peculiar. The army, particularly the branches of artillery and engineering, is very fully represented. Another item of peculiar interest is a combined steam mill and bakery. The entire process, from the grain entering the mill, until a nice loaf or roll is ready for the market, requires not to exceed half an hour. Another grand and characteristic establishment is Dreher's Beer Hall (connected with the stupendous breweries in Schwechat, near Vienna.) Eight special cars daily are required to forward the supply for this hall, from the cellars in Schwechat into the park. The hall itself is of vast dimensions, very comfortably arranged, the walls decorated with representations of the different provincial costumes of Austria, the counters graced with the most beautiful girls from Vienna, Tyrol, Slavonia, Hungary, &c., all in

their peculiar native attire, and the business of the establishment is immense.

**SWITZERLAND.**—Our sister republic, considering her size, has a very respectable collection, expressive of the industry and good sense of the people of the Alps. Her gallery of paintings, mostly of Alpine scenery, is very complete and meritorious. We are introduced to the characteristics of the country as fully almost, as if we had traversed her wild and romantic beauty. Of other articles we notice musical instruments, particularly music-boxes of unrivalled excellence; scientific instruments; clocks and watches of great merit, furniture, glass and brass wares, beautiful carvings, pottery and superior leather goods. Models of Swiss cottages and mountain huts (for the herdsmen) are very attractive. The silk, cotton and flax spinneries deserve particular attention, as also steam pumps and hydraulic engines.

**SCANDINAVIAN STATES, NORWAY.**—We come to a different country, yet in many particulars similar to the one just passed. Excellent paintings represent the peculiar charms of the Northland, and ample and neat models of dwellings show a style of architecture very much like that of Switzerland. But the industry and products of nature are entirely different. We find very complete models of everything pertaining to navigation, fishery and the chase, including the different animals of land and sea, the modes of their preservation and the products gained from them. Manufacturing is chiefly confined to nautical instruments of great value, such as compasses, chronometers, &c., and wearing apparel of leather and furs. A cabinet of wax figures gives the national costumes.

**SWEDEN** has introduced one of her simple school houses, and models of dwellings; the former is filled with maps, books, pictures and rich collections in mineralogy and botany. The mining interest is very liberally represented in machinery and collections, as are also the foundries and agriculture. The gallery of paintings contains much of rare value and special attractiveness.

**DENMARK** brings models of her agricultural and marine interests. Of manufactures, we find nothing remarkable, with the exception of very fine leather gloves.

**ICELAND** sends specimens in natural history, photographs of strange and weird scenery, and interesting antiquities, dating back to the time when her adventurous sons first crossed the stormy main in quest of Vineland.

**RUSSIA.**—The exhibition of this vast empire is very complete, comprehensive and showy. It is much admired. A complete native village exhibits the national customs and styles of her population in the interior, in all their peculiarities and the most minute detail, including the variegated attire of the numberless tribes, which inhabit the wide and growing domain, and their weapons and implements. An extensive stable, itself a work of artistic wood carving, contains a splendid collection of the different breeds of horses in great variety, together with a full assortment of sleighs, carriages and other vehicles. Here we notice as a peculiarity, that the wheels are provided with extra tires of rubber, something which might be introduced among us to advantage. In forestry, the exhibition is very extensive, similar to that of Austria. In arts and manufactures, we notice splendid paintings, chiefly on historical and national subjects; immense riches in gold and silver plate and diamonds, furs and leather goods, the former in overwhelming quantities and of the most valuable kinds; also very costly fur clothing for both sexes.

Agriculture and agricultural products are very fully represented, as are also the mines of Russia, partly in very rich and curious specimens. Large bells and cannon speak for her foundries, and a locomotive recommends itself for high finish and extraordinary power. The navy is reproduced in beautiful models, and everything has been gotten up regardless of expense. The Russian restaurants, with hot tea as the leading beverage, are very interesting in their contrast with those of other nations.

**DANUBIAN PRINCIPALITIES.**—Very little of note is offered in this department, if we except the exceedingly queer-shaped buildings, which defy all our ideas of architectural symmetry. Of manufactures, there are none to speak of. Of natural products, we notice rock salt in various forms, and some very interesting specimens in natural history, especially insects.

**TURKEY.** — The "sick man" having visited the Exposition in person — an unheard-of thing in Turkish rules and etiquette — it was to be expected that no pains would be spared, to render the exhibition of this peculiar country as attractive as possible. Turkey is rich in natural resources, but the indolence of the Turks has done very little indeed, to develop them. To gratify their immoderate taste for luxury, splendor and sensualism would seem to be the only object of their lives, to which all other purposes and pursuits are made secondary. And thus they appeared in the Exposition. The enervating influences of a tyrannical form of government were everywhere painfully apparent. Their pavilions, mosques, bazars, baths and cafes were all resplendent with the most extravagant gorgeousness; their furniture, articles of clothing, arms, personal ornaments, &c., evinced the same sumptuousness; their whole establishment was well calculated to appeal to the senses and beguile the observer into the most vivid recollections from the Arabian Nights and similar oriental literature. But all this bewitching and bewildering display awoke no interest beyond that of the merest curiosity, lacking as it did, a useful and moral purpose. One felt stupified and intoxicated, but in no manner gratified.

In manufactures, they excelled in carpets of the best quality, and richest designs, silks, coral and amber ornaments, leather goods, corks and rose oils.

**SPAIN AND PORTUGAL.** — Spain appears with chiefly natural products. Minerals, such as coal, sulphur, mercury, in powerful blocks; mineralogical cabinets, interesting collections of petrifacts and a gigantic aerolite. Next follow her rich and varied woods in the natural and polished states, procelain from the time of the Moorish occupation, the rich vintage of Spain, with all the implements, presses and vessels of the vintner; her tempting fruits, nuts, and seeds, and, finally, her silk culture in various specimens. We notice, also, splendid models of turned work and light-houses, a cork cuttery, saddlery of just renown, furniture in gothic style, with very costly coverings, jewelry of great beauty, arms, particularly excellent Toledo swords, musical instruments of rich form and tune, and splendid paintings and sculptures. It is everywhere apparent, that

Spain has not yet recovered from that effemination and surrender to luxury and mere sensual enjoyment, which has cost her her glory and proud, commanding position.

Portugal has a few good paintings, excellent marble and works in that material, very substantial furniture, wines, fruits, cigars and seeds. In addition to these, her colonies have sent many interesting articles. We find the skins of lions, tigers and leopards, dresses of the African savages, turtles and works in tortoise shell, elephant tusks, whips of hippopotamos skin, tobacco, guns, groups of palms, and collections of fruits. Among the articles in natural history, there are many curiosities of great value, among others the largest shell known to exist. Interesting, also, are boots of snake skin.

**ITALY, GREECE AND MALTA.** — Italy has made every exertion to be represented as one of the Great Powers. Her collection is very manifold. Prominent, as a matter of course, are the works of art, in great profusion and of immense value. Aside from these we find books, violins of rare finish and excellence, surgical instruments, vases in procelain and terra cotta and of ancient form, a very complete and ingenious model of the catacomb of Rome, glass beads, and ornaments of coral. The agricultural implements and products are very complete in all branches. Cotton and silk goods are of prime quality; also embroidered chasubles and altar covers. A factory of straw goods, in full operation, draws much attention. Of other items, we mention galvano-plastic works, bell foundries, furniture in ebony and marble, and rare geological and geognostic cabinets.

Greece offers little of interest, beyond some really splendid works of art and specimens in mineralogy, and her very tasty and picturesque national costumes. She has not yet recovered her ancient glorious position at the head of civilization, and in all probability will not for a long time to come.

Malta has nothing to offer except photographic views and her fanciful costumes. We now pass to

**GREAT BRITAIN.** — England, with her long-established manufactures, the industrious character of her people, and the enormous extent of her productions, ought to have found her place along side of

France. She appears with all the pomp and circumstance of her pretensions, and the substantial character of her fabrics has made her a powerful rival of that country. Yet, it can not be denied, as a general proposition, that her productions, despite of being magnificent, mostly comfortable and useful, and very substantial, appeared to be somewhat heavy and clumsy, when compared with those of the French. A certain elegance they undeniably have, but it is of that frosty kind, which seems to be indigenous to the English climate. We will note the more remarkable components parts of her enormous collection.

Two lengths of the windows in this department were covered with statistical and other information in regard to the industry and manufactories of England, and their history, in three different languages, — an exceedingly practical arrangement. Naturally, the nautical world is very fully represented. Models of the navy and merchant fleet, with all their implements, life boats, diving apparatus, enormous steam-screws, and a powerful lantern for light-houses, with peculiar reflectors and dynamo-electric light. Further on, we notice models of telegraphs, railroads, superior carriages, gigantic machinery for the use of the colliery; models in architecture, such as large stables, pork-houses, wire-works, poultry-houses, &c.; automatic grain-weighers and other interesting agricultural machinery; machines for flax-breaking, glass-cutting and glass-rolling, brick-making, sewing and washing; spindles and looms for the production of all kinds of yarns and webs, up to the most costly and delicate; all kinds of pottery, porcelain and toys; gold and silver-plate, jewelry of precious stones, of the most fabulous value. The English glass-works compete successfully with those of any other nation. Something new in this connection is the introduction of mica (isid-glass stone) for lamp shades. In printing, engraving, lithography, photography, &c., we find very valuable specimens in great variety. Furniture is very substantial and elegant. Musical instruments are really meritorious, among them pianos and organs. We notice, also, some splendid works of art, scientific instruments, gymnastic apparatus, and artificial limbs, the latter of particularly ingenious construction.

Ireland introduces agriculture in all the different branches; also fishery and fish-breeding.

Scotland excels particularly in mineralogy, metallurgy and rubber goods. We bid farewell now to the European continent, and follow the British flag to the

EAST INDIES and adjacent countries. — In this department, every thing is strange, and fanciful, and costly. The small pagodas in the Park abound in cashmere shawls and Persian carpets of the richest hues, arms with wonderful hilts of ivory, and scabbards inlaid with precious stones, and carvings in ivory; rhinoceros horn, gagat and shell of the most exquisite finish. In matters of fine arts, we notice an extremely low standard, both in paintings and the numerous images. These latter especially, though very costly, testify to the most horrible aberrations of human fancy. They seem to be the impersonated dreams of the hashish-eater.

Of manufactures, we notice in addition to the above, cotton goods and earthen-ware, basket work of great beauty, and palanquins of ivory. Agriculture is very fully represented, including all the fruits, seeds, barks, roots, gums and spices, in very systematic order. Most of the implements in this branch remind us decidedly of the childhood of mankind. The natural history of the East Indies appears in very rich and interesting collections. A numismatic cabinet is also worthy of attention.

CHINA AND JAPAN. — The celestial empire is here in full force, overshadowing her peninsular neighbor. We notice here a decided difference from the other Asiatic nations. A high perfection in mechanical arts, and some progress in science has been reached. But all this appears as superannuated, as having long ago reached a culminating point, beyond which the institutions of the country, or the natural abilities of her people, admitted of no farther development. We gain, also, a full and interesting inside view of the customs, architecture and modes of life of the Chinese.

Of manufactures and products we notice highly colored silks and splendidly embroidered shawls; inimitable japanned ware, fans and parasols, images, porcelain, teas, india inks, cigars, and very rich collections in natural history. The numerous Chinese themselves, of

both sexes and in their native attire, perambulating the Park in all directions in quest of purchasers for their goods, or dispensing their native beverages and viands in fantastically ornamented booths, are by no means the least interesting feature of this department.

JAPAN introduces her wonderfully translucent porcelain, lackered ware, bronzes and sculptures, artificial flowers, palanquins in great variety, and models of her cavalry in a sort of armor and mask, of truly demonian ugliness.

AFRICA. EGYPT brings a very full exhibition, chiefly of her history, natural history, architecture, mode of life and configuration of country, all of which is exceedingly interesting as coming from the ancient cradle of civilization, which would seem still to keep step, although somewhat feebly, to its onward march.

A special pavilion, devoted to the isthmus of *Suez*, is particularly attractive. We find here all the models, maps and profiles pertaining to the canal and railroad works now going on in that ancient country, together with a beautiful panorama, expressive of the vast changes in her history, from the times of the Patriarchs down to the present day.

The establishments of TUNIS and MOROCCO give a very attractive picture of North African life, and the natural products of that country. Of manufactures, we notice gorgeous carpets and embroideries, excellent mattings, leather goods and arms, basket-work and gold and silver lace. A collection of Roman antiquities is very interesting.

ALGIERS, the French colony, as a matter of course, makes considerable display. Prominent are her cork cutlery, silks and silken goods; her tempting fruits in unparalleled variety, specimens in mineralogy and botany, and above all, a zoological museum of North Africa and the Mediterranean, of unexampled completeness and beauty.

PORT NATAL and the CAPE send the treasures of nature in South Africa, and representatives of her strange and various tribes, with their weapons, tools, implements, etc. Models in agriculture, and her products, testify to great fertility of soil, and considerable progress in the cultivation thereof.

MADAGASCAR sends eggs of the largest known bird, the rock bird, (of which no living representatives have yet been found). Each egg will hold about 2½ gallons of water! Also some interesting antiquities.

MAURITIUS is represented by splendid paintings of her luscious fruits.

The important group of the SANDWICH ISLANDS, a rich archipelago of great promise, send from their many products nothing of note, except some very nicely worked garments of bird's plumage, and the curious weapons of the aborigines. We now turn to the latest discovered, although in all probability oldest continent,

AUSTRALIA, and are perfectly astonished at the high degree of culture already attained, where, only lately, none but England's criminals and their guards were the representatives of civilization. We find representations of this curious country in splendid paintings, photographs and maps; specimens of literature and printing of a high order of perfection; excellent pottery and other valuable manufactures. The strange natural history of this continent, in her anomalous forms, is very fully represented, as are also the tools and weapons of her primitive inhabitants. Of particular interest is a complete exhibition of her gold productions of every form and of great value.

We have now reached the closing chapter of our necessarily brief and cursory review, and will begin with the southern half of the great American continent.

SOUTH AMERICAN STATES.—As a general thing, progress is very limited in all directions in this immense territory. If we marvel at any thing, beyond the rich and varied gifts of nature, it is at the insufficiency of the means which man has yet invented and obtained, in order fully to assert his dominion, and the narrow sphere of his actual necessities.

BRAZIL brings her treasures of costly woods, in the natural and manufactured states; her coffee, cotton, cocoa and vanilla; her valuable medical plants, her precious stones in good variety and splendor,

and the characteristic representatives of the animal kingdom. Of manufactures, the only article of note is a fine texture of cocoa fibre, for various purposes.

URAGUAY exhibits various kinds of wood, skins of the jaguar and other animals, and a few papers and lithographs.

THE ARGENTINE CONFEDERATION sends some highly interesting specimens of ante-deluvian animals, and a fair representation of her agriculture.

CHILI AND PERU are prominent in their mining interest, exhibiting stamps, oryctognostic collections and gold in large quantities. Also skins of numerous animals, and representations of the various tribes of their population in life size, very nicely executed. Hammocks of the rich plumage of the parrot are very unique.

VENEZUELA has collections of her wonderful birds and flowers, beetles and butterflies, in the most dazzling hues. Also a variety of Indian work.

THE WEST INDIES excel with a beautiful collection of maritime productions, particularly corals, sponges, shells, &c.

MEXICO.—In the Mexican palace, erected in the style of the old Aztecs, we find all her unparalleled treasures from the three kingdoms of nature, curiously intermixed; paintings of her volcanic mountain chains, and very neat wax figures, representing her numerous races and tribes. The products of her industry are of no account whatever. Antiquities are very ample and interesting. We gain a deep insight into the ancient history of that unhappy people, and much information which tends to explain the peculiar development and present condition of Mexico as a nation. The appearance of the whole Mexican establishment is very picturesque.

COSTA RICA and other Central American States are in the main a repetition of the last named.

THE UNITED STATES.—A more detailed report of this department, it is hoped, will be acceptable.

In fine arts, some excellent paintings, and real master-pieces, were exhibited and found very flattering attention. Among others may be mentioned, Bierstadt's "Rocky Mountains," "Niagara Falls," "Kentucky Home," "Lady Washington," "Queen of Scots," and a

"Gun Foundry." Our Indian summer, with the varied rich and mellow tints of the woods, prairies and cornfields, was very successfully and artistically reproduced in a number of paintings. Several good bronzes were also deserving of notice. Our photographs contrasted very favorably with the countless numbers from other countries, in purity and clearness of outlines. Our musical instruments were universally admired, and justly so. The grand pianos of Steinway and Chickering received the gold medal; violins of Grunder, and brass instruments of Schreiber, both of New York, received bronze medals.

Most successful and brilliant, however, was our exhibition of machinery &c., especially for agricultural purposes, and of useful articles generally. Of these we mention as unsurpassed: Brick machines, reapers, straw-cutters, threshing-machines, separators and fanning-mills, rotary-spades, various scales, pumps, root cutters, apple parers and corers, wire fences and models of farm buildings, coffee-mills, washing-machines, (among them one self-acting, propelled by a sort of clock-work), sewing and button-hole machines; machinery for the manufactures of boot and shoes, of pencils, carvings, eccentric mouldings; convex looms for the manufacture of corsets, etc., etc. The great and acknowledged superiority of most of these articles, over others for like and similar purposes, consists mainly in the simplicity of their construction, and consequent greater durability and adaptability.

We notice further, as superior, the rocking-chairs of T. Barton, fire-arms of all kinds, safes of Herring & Co., marble mantles, dinner-sets of silvered glass, air-tight jars for preserves, and a soda fountain of Salenty & Walker, which received the silver medal. Locomotives and railway cars, of which the latter carried the price in this branch, excelling in practical arrangement and luxurious elegance of finish. Models of railroads and all their appurtenances, telegraphs, and of the great tunnel in Chicago.

Particular and deserved admiration was paid our steam fire-engines and appertaining apparatus. The department of navigation contained, as particularly remarkable, models of Level's life-boat, of light ships and several of our monitors.

In agricultural products, the display was very limited, that is to say, in quantity. Louisiana cotton received the first gold medal; tobacco from New York the bronze medal. Of other articles in this branch we notice Catawba wine, brandy and vinegar from Ohio, seeds and flour from Iowa, a collection of cereals from Wisconsin, including enormous corn and sorghum stalks, etc., etc.

Glass-ware, wools and woolens made a very creditable show. Of minerals, there were specimens from our several coal-fields, a geological cabinet, including Iowa, Illinois and Missouri, and a geognostic collection from the California gold mines. Another large and interesting cabinet contained Indian relics and work in great variety, accompanied by pictorial representations of the several tribes, and a few live Sioux Indians with their dusky squaws.

In another branch of our exhibition, the following articles, among others, were prominent: A large planetarium, the work of Mr. Barlow, a Kentucky farmer; this instrument received the special attention of the men of science, as remarkably demonstrative and instructive. Other astronomical as well as surgical instruments, (the latter a branch in which a sad experience has taught us), were excellent. The works of American dentistry maintained their high reputation. The models of our field-hospitals, ambulances, dispensaries and surgical appliances, down to the most minute detail, appeared to be so pre-eminently practical and useful that the Commission pronounced them "overwhelmingly excellent."

As a group, peculiar to the American department, ought also to be mentioned a plain Pennsylvania school-house, as a fit representative of that powerful lever and auxiliary of American progress—popular education. Along side of this we find Sabbath schools, churches of the several sects, where divine services are being held, despite of all the noise and confusion of the Exposition, and missionary establishments for the distribution of Testaments and tracts, in most of the known languages of the human family.

The American restaurants are admirably conducted and supply the favorite drinks and dishes of all the several sections of the Union, in the most approved style. French papers tell us that the ladies presiding in these establishments were at once pronounced the best

looking, and so many matches were hurriedly arranged and perfected, that it became necessary to order a fresh supply. (This we give, of course, for what it may be worth; it sounds somewhat Frenchy).

Our CANADIAN neighbors who, for all practical purposes and in anticipation of an inevitable future, may be here included, presented magnificent collections of furs, with stuffed specimens of the animals furnishing the same; also of birds of the polar zone, and a mineralogical cabinet.

A few more general remarks in conclusion. In quantity and variety our exhibition did not begin to do justice to our industrial enterprise and natural resources; nor was the extent of territory allotted us by the Commission in any manner adequate. On the probable reasons for these facts, it is not the province of the undersigned to speculate. But, as an American citizen, he is proud to state what was everywhere freely acknowledged, that a large majority of articles exhibited by us were worthy of and received universal admiration. With limited means we have achieved great results. In the branches of ingenious yet simple inventions and constructions, the application of theory to practice, the saving of time and labor, and of grand, practical conceptions, we are, to-day, the admitted champions of the world. In others, it is true, we ought yet to learn from other nations. But while this is so, we have not the least reason to feel humiliated because of our limited progress in any. On the contrary, we can already see our way clear to the brightest future in all. And as our national flag to-day is greeted with the highest respect by all the nations of the earth, so the time is evidently not far distant when our industry also, in every one of her manifold channels, will occupy the same commanding position.

Respectfully submitted,

DR. OTTO THIEME,  
*Commissioner.*