

# THE UNIVERSAL EXPOSITION

The Achievements of Individuals and Nations Faithfully Recorded by This Encyclopedia of Society.

By FREDERICK J. V. SKIFF, Director of Exhibits, World's Fair.

"The wisdom of all ages is none too great for the world's work." In this single salient sentence, uttered in his famous address at Buffalo in September, 1901, President McKinley described the object and the result of expositions.

A modern universal exposition is a collection of the wisdom and achievements of the world, for the inspection of the world, for the study of its experts, by which they may make comparisons and deduction and develop plans for future improvements and progress. Such a universal exposition might well be called an encyclopedia of society. It constitutes a classified, compact, indexed compendium of the achievements and ideas of society in all phases of its activity, extending to the most material as well as the most refined. It offers illustrations covering the full field of social performance, from the production of the shoes on our feet and the pavement beneath them to a presentation of the rarest and most delicate creations of the brains and hands of men in what are called the fine arts of civilization.

The Universal Exposition in St. Louis in 1904 will be such a social encyclopedia in the most comprehensive and accurate sense. It will give to the world in revised and complete details "a living picture of the artistic and industrial development at which mankind has arrived" and will actually provide "a new starting point from which all men may direct future exertions." It will present for the inspection of specialists in all lines of industrial and social endeavor and for the public an assembly of the best which the world has done and has to show in industry, art and science, and, what is very important, it will offer these achievements of society, these trophies of civilization, in a highly selected, accurately classified array.

The creators of the St. Louis Exposition have had the experience of all previous great expositions by which to plan and effect its high organization. The continuous and repeated burden of the message of experience handed down by all expositions has been more perfect, more effective classification and arrangement of exhibits.

The classification of the St. Louis Exposition has been prepared to present a sequential synopsis of the developments that have marked man's progress. On its bases will be assembled the most highly organized exposition the world has yet seen.

The St. Louis classification is divided into 16 departments, 144 groups and 207 classes. These grand departments in their order will record what man has accomplished at this time with his faculties, industry and skill and the natural resources at his command in the environment in which he has been placed.

At the head of the Exposition classification has been placed Education, through which man enters social life, and comes Art, showing the conditions of his culture and development. General Arts and Applied Sciences are placed third, to indicate the result of education and culture, illustrate his tastes and demonstrate his inventive genius, scientific attainment and artistic expression. These three departments equip him for the battle and prepare him for the enjoyments of life. The raw material departments, Agriculture, Horticulture, Mining and Forestry, show how man conserves the forces of nature to his uses. The Department of Manufactures will show what he has done with them; the Department of Machinery the tools he has used. The Department of Transportation will show how he overcomes distances and secures access to all parts of the world. The Department of Electricity will indicate the great forces he has discovered and utilized to convey power and intelligence. And so through the several departments to Anthropology, in which man studies man; and to Social Economy, which will illustrate the development of the human race, how it has overcome the difficulties of civilization and solved problems in which society is involved.

Last is placed physical culture, in which man, his intelligence having reached the supreme point, is able to treat himself as an animal, realizing that his intellectual and moral constitutions require a sound physical body to prompt them to the proper performance of their function. Education is the keynote of the Universal Exposition of 1904. Each department of the world's labor and development will be represented at St. Louis, classified and installed in such manner that all engaged or interested in such branch of activity may come and see, examine, study and go away advised. Each of the separate sections of the Exposition will be an equivalent of—or, rather, will be in actuality a comprehensive and most effective object lesson in—the line of industrial and social achievement and progress which it presents.

**Cost of Seeing the World's Fair.** From any point within 300 miles of St. Louis a person may travel to the World's Fair this year, view the wonders of the Exposition for three days and expend the same money he would pay in any other year for train fare alone. This is an absolute fact.

The Western Passenger Association has agreed on a ten day excursion rate, 250 miles or more from St. Louis, for one and one-fifth fare for the round trip.

## ALL THE STATES AT THE WORLD'S FAIR.

Many Beautiful Pavilions and Pretentious Buildings Show Forth the Enterprise of American Commonwealths.

A beautiful city has grown up among the trees on the World's Fair grounds at St. Louis. It has nothing to do with the immense exhibit palaces, but is a thing apart. The houses in this new city are of various styles of architecture. Some are palatial in size and appearance, while others look merely cozy and inviting. Never before have so many notable and historic buildings been constructed in one group. This new city might be called the City of the States, for the houses included in it are the state buildings at the Fair.

The city is not compact, but somewhat straggling, as befits the picturesque quality of the view. Yet there is nothing suggestive of a Stringtown-on-the-Pike about this city, for the grounds surrounding each of the houses are beautified with gardens typical of the state represented.

All the states are to be represented at the World's Fair. This means a great deal, a shining triumph for the Louisiana Purchase Exposition, and furnishes another illustration of the fact that this Exposition's completeness is the marvel of the age.

Fifty-one states, territories and possessions of the United States have taken the steps necessary to participate in the World's Fair on an important scale. But two states were still outside the fold at the last report, and in each of these was a well defined movement in favor of being represented at the Fair with buildings and exhibits. New Hampshire, the old home state, and Delaware are the states referred to. In New Hampshire a fund for participation is being raised privately by patriotic citizens, so that in the event of legislative inaction this commonwealth may be represented.

The states and territories are expending over \$7,000,000 in their efforts to show off to best advantage at the Exposition. This is a million and a half more than was expended at the Chicago exposition by the states. In addition to this, large cities in many states will have municipal exhibits, the funds for which are not included in these figures. The municipal exhibit idea is entirely novel. From a number of the states there will be prominent county exhibits provided by special appropriation of county funds.

This City of the States presents a picture of surpassing beauty. Nature has done much to aid in the creation of the picture. Never before has any exposition been able to grant such advantageous sites for state buildings. The buildings are situated on a plateau about seventy-five feet higher than the level ground to the north upon which stand the main exhibit palaces. There are hills and ravines here and there, enabling the landscapers to lay out a most delightful pattern of roads and terraces and lawns.

The smallest of the state buildings is that of Arizona, which stands near the southeastern entrance to the grounds. One of the largest is that of Missouri, from the dome of which it is said that perhaps the very finest view of the Exposition may be enjoyed. This building is a palace in the Italian renaissance architecture, built at a cost of \$105,000. Near by is the reproduction of the Cabildo at New Orleans, in which the Louisiana Purchase transfer ceremonies took place—Louisiana's state building. Ohio has a clubhouse of highly ornate design. In the architecture of the French renaissance. Illinois is prominent with a most pretentious structure, with wide verandas and a commanding cupola.

A description of each of the state buildings, with any detail, would more than fill a newspaper page. It is only possible here to hint at some of the interesting structures. California, for instance, has reproduced in exact size the famous old La Rabida Mission. Connecticut presents a replica of the Sigourney residence at Hartford, home of the poetess Lydia Huntley Sigourney in her time. This building is said to be the finest specimen of purely colonial architecture now standing. The New Kentucky Home, from the Blue Grass State, is a handsome clubhouse that would make some of the mansions along Fifth avenue, New York city, look insignificant. Beauvoir, the quaint old house which Jefferson Davis owned and occupied for many years, is reproduced by Mississippi. Its wide verandas or galleries give it a most inviting appearance. Washington's headquarters at Morris-town, N. J., are reproduced by New Jersey. Virginia contributes Monticello, the home of Thomas Jefferson.

The state of Washington contributes a structure of unique design. It is called the Wigwam, five stories high, built of wood from Washington forests. The building is octagonal, with gigantic diagonal timbers rising from the ground and meeting in an apex ninety feet in the air, above which is built an observatory, from which a splendid view of the Exposition may be had. An elevator will carry visitors to the observatory.

New York, Pennsylvania, Ohio, Arkansas, Colorado, West Virginia, Indiana, Wisconsin, Texas and many other states are represented by buildings which cannot fail to arouse admiration. The Texas building is in the shape of a five pointed star, an appropriate idea for the big Lone Star State. Iowa has a magnificent mansion, with classic porticoes and a central tower containing an observatory chamber. Kansas, Indian Territory and Oklahoma each uphold the growing reputation of the southwest for enterprise and fertility of resources.

## OUR SENSITIVE EARS

THE PECULIAR MECHANISM OF THESE WONDERFUL ORGANS.

How They Are Affected by the Shock of the Discharge of Big Guns—The Odd Way in Which Some Ears Are Played Upon by Various Sounds.

Whenever a big gun is fired at Fort Hancock, the government's proving grounds on Sandy Hook, the officers in charge advise all spectators to stand on their tiptoes, stick their fingers in their ears and open their mouths. On board ship, where conditions are such that one cannot get far away from a thirteen inch rifle, the more sensitive among the officers and sailors place a cork or chunk of rubber between their teeth when there is about to be a discharge. Men have been known to bleed in the ear from the effects of the concussion caused by a much smaller gun than a thirteen inch bore. One of the officers at Fort Hancock was asked to explain the philosophy of elevating oneself on the toes, placing fingers in ears and opening the mouth.

"Standing on the toes is like standing on a spring," he replied, "while standing on the heel or full sole of the foot is like standing on a solid. By placing a spring between your person and a violent force the impact is so weakened that you are unlikely to suffer injury. In the firing of heavy ordnance a severe shock may be received from the ground.

"As for the fingers in the ears, that's plain enough. It is simply closing the auditory canal to prevent the ingress of the air which is set in intense vibration by the discharge. Many a careless soldier has had his tympanic membrane destroyed by neglecting to close up his ears, either with his fingers or some foreign substance.

"It is wise to open the mouth, for the reason that to do so tends to equalize the pressure caused by the detonation. With the mouth closed the pressure is on the external side of the tympanic membrane, forcing it inward and splitting it. When the mouth is open this is offset by the same pressure from within, by means of the eustachian tube.

"Many men in the artillery are minus tympanic membranes, but that wonderful design of nature is not absolutely necessary to hearing. When it is torn the hearing is impaired, certainly, but not destroyed, since the surrounding air then acts directly upon the membranes of the two orifices. Nothing in anatomy is more beautiful than the arrangement of the ear. I have made a study of it since coming here, as I had the misfortune to lose one of my tympanic membranes.

"The inner membrane of the cochlea is lined with elastic fibers, discovered by Corti and bearing his name. They apparently form the terminations of the filaments of the auditory nerve. Helmholtz, the greatest authority on acoustics the world has produced, declared that each one of these fibers is attuned to a special note, and as they are above 3,000 in number there must be over 400 for each octave. The interval from one to another is one-sixty-sixth of a tone. They form a wonderful instrument for reproducing every note that the ear can distinguish.

"The cochlea may be called an aolian harp of 3,000 strings that move in sympathy to all the sounds of creation.

"Many ears are incapable of hearing very high sounds. Many persons are deaf to the chirping of crickets, and some cannot hear the twittering of sparrows. There was said to be a boy in Texas whose ears were deformed to a remarkable degree, the auricle of one being nearly as large as the side of his head, while that of the other was no bigger than your thumb nail. By closing the small ear he could hear the approach of a rain-storm a hundred miles off. By closing the big one he could hear a fly walking on the ceiling. Isn't that romantic enough for you? It takes a vivid imagination to believe the story, but when you consider the miracles of the ear and hearing you may believe almost anything.

"I do not doubt that there are many sounds so faint that our ears are deaf to them, but they make sweet music for others. You know what paracousis is, I suppose. No? Well, you have it when you cannot hear faint sounds at all when things are still, but hear them at once when they are accompanied by a great noise. I once read of a woman (an authentic case) who made her servant beat a drum whenever she wanted to listen to anything, for then she could hear very well. There was a man who could not hear except when the bells were ringing. It is an old story that deaf persons hear well when traveling on a railroad, or when rattling over a rough highway in a carriage.

"There was a shoemaker's apprentice who heard only when his master was beating out a sole on his iron. The left ear generally hears better than the right. Some say this is owing to the common habit of sleeping on the right side. I have my doubts. There is a record of a man whose two ears heard different tones at the same time when a single one was given.

"The ears of the lower animals are incomplete. Do fishes hear? Certainly, although the cavity of the tympanum is entirely wanting, the round and oval orifices being at the top of the head. Look out! Get up on your toes and open your mouth. The mortar on the left is about to be discharged. The wind is with the shell, so you needn't close your ear. There she goes!"—New York Press.

Where there is much pretension such has been borrowed. Nature never pretends.—Lavater.

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## A FISH THAT COULD TALK.

A natural curiosity captured on the coast of Africa on May 5, 1854, by Bignoe Cavanna and exhibited in all the great cities of Europe during the years 1853, 1850, 1861 and 1862, where it was advertised as the "talking fish," was in reality a species of the African seal, well known to naturalists on account of its wonderful powers of mimicry. This particular animal was about twelve feet in length and weighed something over 800 pounds. It had a fine, doglike head and large, beautiful black eyes, which seemed to sparkle with intelligence whenever the creature was spoken to by any one. It was very docile and when told to dance would roll over and over in its bathtub, with first tail and then head above the water, all the time chattering as though enjoying the sport as much as the spectators did. It soon learned many odd tricks and, it is claimed, learned to articulate at least three words very plainly—viz, "ummm," "papa" and "John," the last being its keeper's name. When told to pray it would clasp its flippers in the attitude of supplication and put on a sanctimonious look.

**Origin of the Aztecs.**  
An old tradition says the Aztecs were one of seven powerful tribes that emerged from seven caverns in a region called Aztlan, or place of the heron. They wandered away from their fellows after a great confusion of tongues and settled in the region they are known to have inhabited. This tradition may be partly fabulous, but it is sure that the Aztecs settled the country before the eleventh or twelfth century.

All the tribes lived in peace for a considerable time until the strong began to encroach upon the territory of the weaker. Then a fierce war for supremacy over the whole territory ensued and lasted many years. Under the leadership of their military chiefs the Aztecs obtained control of the whole territory and established a very enlightened form of government. This was consummated in 1324 or 1325.

**Detecting Gull in Liberia.**  
The brown skins of the natives in Liberia are often daubed with red and white clay, the effect of the latter being rather startling. This is called dressing. Sometimes a vertical blue mark is seen across the forehead. This is a sign of freedom. The Kroonmen have it more than others. They are largely employed as extra hands on the steamers. When a man is suspected of murder, theft, etc., he is made to drink sawed wood. This being deadly poison, his innocence is declared by the draft not proving fatal. It is said, however, that this is only a form. When the fatal moment arrives some expedient is generally adopted, or else it is considered that only an innocent man would be willing to approach the deadly draft.

**Weddings in Korea.**  
At a Korean marriage every one rides on horseback and in single file. First comes a mansever, who carries in both hands an imitation life sized wild goose, covered by a red scarf. Then come the bridegroom, his friends and all the servants he possesses or is able to borrow. At the bride's house the servant first deposits the goose on a bowl of rice; then all dismount, and, leaving outside their outer robes, their hats and their boots, they enter the house and make as much noise as they possibly can. The pandemonium does not cease till the guests are paid to go away. A feast follows and then the bridegroom is taken to his bride, whom he sees for the first time.

**Old Names in Delaware.**  
Delaware has a curious collection of odd surnames. There is a family of Colts in Kent county. The Peppers and Mustards have long lived neighbors in Sussex, and there are Penches in Newcaston county, inauspiciously settled north of the peach belt. One man named his three sons for the several counties of the state, and Delaware is an occasional Christian name. A girl whose name was Leonora Missouri Cannon provoked from a stranger the prompt declaration that the name was sentimental, patriotic and explosive.

**Real Balm of Gilead.**  
The real balm of Gilead is the dried juice of a low shrub, it is said, which grows in Syria. It is very valuable and scarce, for the amount of balm yielded by one shrub never exceeded sixty drops a day. According to Josephus, the balm or balsam of Gilead was one of the presents given by the queen of Sheba to King Solomon. The ancient Jewish physicians prescribed it evidently for dyspepsia and melancholia.

**Didn't Want an Elephant.**  
"An elephant must be a pretty expensive animal."  
"Yes, I wish I had enough money to buy one."  
"What do you want with an elephant?"  
"I don't; I merely expressed a wish for the money."—Philadelphia Press.

**Gets Nothing.**  
Hicks—The way Bragley talks of providing for his wife he seems to think nothing too good for her. Wicks—H'm! And the way he actually provides for her he seems to think nothing is good enough for her.—Philadelphia Ledger.

**An Important Moment.**  
Mr. Newlywed (in the kitchen)—What are you cooking there, my dear? Mrs. Newlywed (excitedly)—Don't bother me now. There's the cookery book. I'm making recipe No. 157 on page 396.

It is a miserable state of mind to have few things to desire and many things to fear, and yet that commonly is the case of kings.—Bacon.

## WORLD'S FAIR HOTEL ACCOMMODATIONS.

St. Louis Hoteliers Prepared to Handle Vast Throngs—Prices Not to Be Increased—Hotel Inside of the Exposition Grounds With a Capacity For 6,000 Guests.

Ample hotel accommodations have been provided for the World's Fair visitors at St. Louis both within and outside of the Exposition grounds. The Exposition management has organized a free information service. A pamphlet has been issued for gratuitous circulation explaining many of the conveniences that have been provided. A list of all the hotels, with rates, is contained in this pamphlet. The entire city has been canvassed, and many thousands of private home-



FOREIGN OF VARIOUS INDUSTRIES BUILDING, WORLD'S FAIR.

holders have arranged to receive visitors. These houses are in every section of the city, and the rates at which guests will be received is a matter of record on the books of the bureau.

The inside inn, a hotel on the Exposition grounds, has a capacity for 6,000 guests. The Exposition management has control of the rates, which have been fixed at from \$1.50 to \$3.50 per day, European plan, including admission to the grounds. On the American plan the rates range from \$3 to \$5 per day. The hotel is 400 by 800 feet and is three stories high.

There are more than 150 established hotels in St. Louis, and a signed agreement has been made between many of their managers with the Exposition officials that rates shall not be raised during the Exposition period. Many new hotels have been built on sites adjacent to the Exposition grounds, and the published fixed rates warrant the assertion that no one need pay exorbitant rates for accommodations either at hotels or private houses.

Among the new hotels may be mentioned the Hotel Napoleon Bonaparte, which stands at Clayton avenue and Siskier road, overlooking the Exposition grounds. This hostelry will accommodate 5,000 persons. The rates, European plan, are from \$1 to \$5 per day. The Grand View hotel, south of the Exposition, on Oakland avenue, has a capacity for 5,000 guests, and the rates are \$1 to \$1.50 per day, European, and \$2 to \$2.50 per day on the American plan. The Kenilworth, on West Park boulevard and Billon avenue, has a capacity of 1,500 guests, with a rate of \$1.50 per day.

The above mentioned are a few of the new hotels that have been erected near the Exposition grounds for the accommodation of World's Fair visitors. All told there are about two score. All are within easy walking distance, and all are situated on high ground, with comprehensive views of the grounds. All of the structures are well built, and in some of them the most luxurious quarters are obtainable. The rates are established and will not be increased during the Exposition.

## NEW MUSIC FOR WORLD'S FAIR

Three Compositions by Famous People. Band Tournament.

Musical people and all who appreciate good music may thank the World's Fair for three notable compositions, written upon the invitation of the Exposition management. These are the "Hymn of the West," by the most distinguished living American poet, Edmund Clarence Stedman, the music for which was written by Professor John K. Paine, who is at the head of the music department of Harvard university; "Louisiana," a march by Frank Vanderstucken, leader of the Cincinnati Orchestra; a waltz, "Along the Plaza," by Henry K. Hadley of New York, who has won his laurels long before this as writer of operatic and other musical compositions. This music will be heard publicly for the first time upon the opening of the Exposition on Saturday, April 30, and frequently thereafter in the musical programmes of the greatest of world's fairs. These are the only official compositions.

Thirty thousand dollars will be given in prizes for the best bands at a tournament to be held during the Exposition. All through the World's Fair the musical feature will be prominent. The most famous bands of the world are under contract to participate during considerable periods. Among these are Le Garde Republicaine band of France, the Royal Grenadier band of England, the American National band, Sousa's band and others.

## COWS TRAINED FOR THE TEST

Jerseys at the World's Fair Are Expected to Show That They Are Superior to All Other Breeds.

The herd of Jersey cows assembled at the World's Fair at St. Louis to represent the Jersey breed in the universal dairy test has been inspected and has been pronounced in perfect condition and ready to start upon their six months' grind on a day's notice.

W. R. Spann of the Burr Oak Jersey farm, Dallas, Tex., was the inspector, and he was thorough in his work. He passed a week on the Exposition grounds, and much of the time was spent in and around the Jersey cattle barn, and the condition of each individual of the herd of forty cows was definitely ascertained.

Never was more intelligent and careful treatment lavished on animals. No athlete was ever better trained for a contest requiring the development of speed, skill and endurance than has been this herd of Jerseys. When it is known that this herd is to compete with selected herds of Holsteins, Short-horns, Brown Swisses and Devons, and the herd making the best score for the production of butter, milk and cheese is to establish the standing of the various breeds, the importance of the cows being in perfect condition may be understood.

For a solid year the Jerseys have been in constant training. Twenty-five cows will participate in the contest. Cows were selected from the best herds in the United States.

Dr. J. J. Richardson, president of the American Jersey Cattle Club, under whose auspices this entry is made, toured Europe and visited the famed Isle of Jersey, where the breed originated. He was seeking the best cows, but returned satisfied that Europe could show no cows that were better than those bred in America.

Though only twenty-five cows will participate in the test, forty cows were selected. They were assembled at Jerseyville, Ill., a year ago. This is near St. Louis, and the cattle have become acclimated. Last December they were removed to St. Louis. The cows are the property of individual members of the club and are loaned for the term of the test. C. T. Graves, a breeder at Maitland, Mo., was selected as the superintendent to have charge of the cattle, and he has been highly commended by Dr. Richardson and Inspector Spann for the wonderfully fine condition in which he has placed the herd.

A series of model dairy barns have been built for the breeds competing in the test. The barns are octagonal in form, and are so arranged that the cows are in the center and a wide promenade permits visitors to pass around and view the cows as they stand in their stalls.

The milking and feeding are to be done in plain view of the public, and representatives of the various herds will at all times have access to all the barns to see that no sharp practices are indulged in.

The test not only consists in showing the amount of butter, milk and cheese produced, but the cost of production is taken into consideration. Every ounce of food given each cow is weighed and carefully recorded. When the cows are milked, the milk is conveyed to a model creamery in the Agricultural building, where it is tested and made into butter and cheese and where all records are carefully kept.

The Jersey cattle participated in a similar test at Chicago during the Columbian Exposition and carried off first honors.

Superintendent Graves is sanguine over the result of the present test. He says that the Jerseys have always demonstrated their superiority over all other breeds when placed in competition, and this time they will show to better advantage than ever. Not only is the Jersey milk richer in butter fat than the milk of any other breed, says Mr. Graves, but it can be produced at a less cost. The Jersey cows are the smallest of the standard breeds, and he asserts that they consume less feed. They assimilate their food, and it is converted into milk and butter and is not used in building up and sustaining a large carcass.

"We are going to make all other breeds take to the woods after this test," said Mr. Graves. "A few days ago I was testing some of our Jersey milk, and my hands were all sticky and greasy from the enormous amount of butter fat the milk contained. Mr. Von Heyne, who is in charge of the Holsteins, sent over a quantity of his milk for me to test. Of course, from a commercial standpoint, there was no comparison between the milk, but it was a pleasure to test his milk, for when I got through there was no grease on my hands. After this I will have a bucket of Holstein milk around handy to wash my hands in after testing our own rich Jersey milk."

The test begins May 16 and continues 120 days.

**Unique California Map.**  
A unique exhibit at the World's Fair was prepared by the agricultural department of the University of California. It is a large map, so colored as to show the character of the various soils of the state. It gives a clear idea of the situation and the extent of the arable and unutilized sections. In the localities that cannot be cultivated are shown the Sierras, the lava beds and the desert. The map indicates the location of the cultivable portions of the mountains and Mohave plateaus and shows the nature of the foothills and valleys of that wonderful state.