

ST. LOUIS FAIR

THE BEAUTIFUL FESTIVAL HALL AND CENTRAL CASCADE

(Special Correspondence of The Journal.)
ST. LOUIS, April 27.—Probably the first place to which the steps of the Oregonians who are in St. Louis to the opening of the great fair will be turned is old Fort Clatsop, the Oregon building. Grim and rugged of rough logs with jutting towers and loop-holed walls it startles the sight amid the white splendor of the surrounding buildings by its stern contrast with them, telling of the days when civilization in the Pacific northwest was young.

Located on about the highest ground in Forest park—appropriately placed as if against attack—and on the street leading from the festival hall to the United States government building, as well as all the state buildings, few visitors will not pass the Oregon building. The sidewalk lies within 10 feet of the wings.

G. Y. Harry of Portland, who has charge of the construction work on the building said yesterday: "I think of things into consideration, we have the very best located state building on the world's fair grounds. It will make splendid headquarters for the Lewis and Clark fair. Thousands of people can be reached from the front door. With the front veranda and the beautiful walkways and shrubbery and a fringe of lovely Oregon ferns around the base of the enormous stone chimney, the place will be all the more attractive. The great seal of the state of Oregon will float on a flag flying from the mast in the center of the building, having for companions the emblem of the Lewis and Clark fair flying on each wing of the main building, while far in the rear, from a staff out of the center of each bastion on the extreme corners of the cascade, Old Glory will keep watch and vigil as the sturdy, rough and ready pioneers in the old days kept watch along the barrel of the rifle from the block house tower for the stealthy foe."

But, however attractive Oregon's building is for Oregonians and for all who know the place, there are many thousands of other workers about Forest park to permit any one of them to monopolize attention. The buildings exceed in magnificence those of the Chicago exposition, which led the world in a decorative way.

In place of the mammoth palace such as the Manufactures building at the Columbian exposition, there are three great structures at the Louisiana Purchase exposition devoted to a display of the most beautiful and ready-made world's skilled labor. They are the Manufactures building, the Liberal Arts building and the Varied Industries building.

The Varied Industries building is a magnificent structure on the outer perimeter of the main picture of the fair. The building has over 650,000 square feet of exhibition space, all on the ground floor. In the center of the north facade is a low dome flanked by towers about 200 feet high, which afford ample space for electrical display and illumination. The Manufactures building is located symmetrically with the Varied Industries building, and both are in the first view of the picture of lagoons, cascades and hanging gardens, which the visitor gets as he enters the grounds by the main entrance. Southeast of the Manufactures building is the Liberal Arts building, and almost of equal size.

In these three buildings 36 acres of floor space are devoted to exhibits. Whether handicrafts, the results of intricate machinery, the display of the product of human ingenuity has here reached its culminating point. The amount of space granted to foreign governments was necessarily so large that less than one-fourth was left to exhibitors of the United States. Nevertheless it is the greatest showing in manufactures and liberal arts that the United States has ever attempted.

In the Palace of Liberal Arts the treasures of science, art and industry are assembled.

China is better represented than any previous exhibition in the history of the world. Ancient manuscripts, books made thousands of years before Gutenberg saw the light, work of ancient craftsmen in wood and jet executed at a period when the tools employed were of the

crudest, trophies from her museums and palaces, ancient and fantastic armor, costumes of every section of the race, musical instruments of strange shape and weird tone—these unfold the story of the wonderful people.

The two great buildings—Manufactures building and Palace of Varied Industries—have been set aside for the rare and expensive exhibits of manufactures alone. Four great nations—Germany, France, Great Britain and the United States—are most conspicuous among the exhibitors. Japan and Austria are also well represented.

The display of jewelry is one of the most valuable and noteworthy to be found in these palaces. Ornamental iron work, silk manufacture, tapestries, furniture, stationery, wallpaper and other branches of manufacturing are shown.

From its commanding position overlooking the Cascade Gardens—the focal point of the exposition—the noble Palace of Art, with its raiment of pure white, glistened in the noonday sun today, and the masterpieces of sculpture crowning the facade looked down upon the throngs that besieged the wide entrances eager to pay tribute to the most general representation of the art in the world that has ever been attempted. This is the million dollar palace, the costliest of all the exposition structures. It is made up of four distinct pavilions. In these great exhibition halls, France is accorded some 350,000 square feet of wall space, while Great Britain, Germany, Italy, Spain and other foreign countries have been liberally accorded space according to their needs. Russia, alone, is officially unrepresented, but in the numerous loan collections which form a prominent part of the exhibition, the masterpieces of a number of the great Russian artists, including the immortal Verestehagin, who went down in the Petropavlovsk, are displayed. Japan is better represented than at any previous exposition. Even Mexico and several South American countries have pre-empted several thousand square feet of space.

In the American section the most eminent of American artists and sculptors are well and creditably represented. Among them are John S. Bargar, W. M. Chase, Kenyon Cox, E. A. Abbey, John LaFarge, Lorado Taft, and F. E. Millet. France contributes more than 1,000 productions in painting and sculpture. In the British section are some of the holiest exhibits, bearing signatures of men whose names are known to all over the world of art—as, for instance, Sir John Gilbert, Sir Frederick Leighton, Watts and E. Poynter. A close second to the British display is the German section, which comprises some of the choicest and most valuable treasures of the galleries of the prince regent of Bavaria, the Imperial academy and the German National gallery. Belgium, Holland, Spain, Austria, and the Scandinavian countries likewise are represented by several hundred frames each, several of the world's most famous paintings being included in the Dutch and Spanish art displays.

The noiseless motion of smooth-running machinery and its miles of shafting has an irresistible attraction for mechanic and student, and the crowd today lingered long in the Machinery building—a great parallelogram structure, 525 feet by 1,000 feet. Here, in the main building and its annex, are the great engines which furnish the power of the exposition. The engines, with the pumps, condensers and other machinery, occupy an area of 200,000 square feet. In close association are to be seen a gas engine from Tegel, Germany, a high-speed steam engine from Harnburg, Eng., a medium-speed steam engine from Cincinnati, a low-speed steam engine from Burlington, Ia., a turbine water wheel from San Francisco, operated by water forced through a pump from Jeannetteville, Pa., a 3,000-horsepower steam turbine from Belgium, an 8,000-horsepower steam turbine from New York, another steam turbine from Pittsburgh and a number of reciprocating steam engines from other localities.

Without a fair knowledge of agricultural chemistry the twentieth century farmer is not fully equipped for the

with the land. In the Palace of Agriculture he is able to compare notes, for he sees the results of study and practice about soil and water, charts, census of animals, a history of agriculture in its successive changes, and of the fluctuations in the prices of land, rents, labor, livestock, crops and animal products. Institutions, co-operative societies, communities and associations that deal with or take part in experiments and the advancement of farming are well represented. The central portion of the building has been devoted to the United States. Corn is king in the Iowa section; North Dakota, Kansas and other states make a conspicuous showing of their wheat; the south displays her cotton, and Kentucky outspices the world with her exhibit of tobacco.

Collections of insects, of vegetable parasites, of plants and of animals; appliances for destroying injurious insects and plant diseases; silk worms and bees and their various products, are shown. The brewers have monopolized an entire section, while another section is devoted to a display of agricultural implements and machinery in bewildering variety.

Occupying a conspicuous location to the south and west of the Liberal Arts building and separated from that imposing edifice by the main gardens stands the magnificent structure devoted to mines and metallurgy. The building is the largest provided for mining exhibits at any exposition.

Each state of the United States makes a splendid showing, and nearly every exhibit is shown in a pavilion constructed of a characteristic mineral stone or product of the state. Particularly notable are the copper displays of Montana and northern Michigan, the coal exhibits of Pennsylvania, West Virginia, Indiana and other states, the lead and zinc from Missouri and the variety of ores and minerals found in Colorado, Idaho, Oregon, California and other states of the west. There are costly exhibits of silver from Montana, various jewels from North Carolina, gold from California and onyx and whetstones from Missouri, Vermont and other states of the union.

On the four miles of track and acres of other space within the walls of the Palace of Transportation is illustrated the evolution of transportation methods from the flatboat and packhorse of ancient times to the ocean greyhounds and trains of the present day.

In the center of the immense structure stands an elevated steel turntable upon a locomotive weighing over 200,000 pounds. Through the medium of compressed air the wheels of the locomotive revolve at a speed of 60 miles an hour while the turntable slowly

carries the great engine around and around by electric power. Headlights of piercing brilliancy on the locomotive throw electric searchlight rays to every part of the building. Every leading railway of the United States and Canada is represented, together with some of the roads of Great Britain, France and Germany.

Next in importance to the railway exhibit is the department devoted to road vehicles. This comprises every variety of vehicle, from the bicycle to the \$25,000 automobile.

But the feature of the transportation exhibit that undoubtedly will attract the most attention from the general public will be the airship contest planned for this summer. The exposition has offered a grand prize of \$100,000 to the airship which shall make the best record over a prescribed course, at a speed of not less than 20 miles an hour. Quite a large number of aeronauts, including the redoubtable Sinton-Dumont, have announced their intention of competing. On Sinker hill, a short distance south of the agriculture building, is the palace of horticulture. The structure is in the shape of a Greek cross with a center pavilion and two wings.

The eastern wing of the building is almost entirely of glass, and is used as a conservatory. The pomological exhibits occupy the greater part of the center pavilion. Occupying the very center of the pavilion is an elaborate palm exhibit. The remainder of the four acres of the pavilion are taken up with the display of fruits.

There are magnificent tree ferns and tropical plants from Australia. Japan has about one-third of a section, and

Germany about the same. Other prominent foreign exhibitors are Belgium, France and Great Britain.

Another interesting feature is a real tea garden.

The palace of electricity is one of the most popular show-places of the big fair.

Under the roof of this mammoth structure all types of machines for the generation and utilization of electrical energy are exhibited, both for direct and alternating currents and transformers, the use of which makes possible the long-distance transmission of energy now so common in America. The display includes electric motors for railways, elevators, cranes, printing presses and the like. One of the novelties shown is the application of electricity for the purification of water for drinking purposes.

Some of the features that appear most conspicuous are the exhibits of the multiplex telegraph, by means of which several messages may be sent over the same wire, and mechanisms designed to transmit messages at an almost incredible rate of speed. All of these are shown in practical operation.

Wireless telegraphy, which many believe destined to become a powerful rival of the present system, occupies a most prominent position among the electrical exhibits. The largest wireless telegraph station in the world is now building on the exposition grounds. From it it is proposed to send messages to cities throughout the western country.

Near the northwestern corner of the grounds stands a large building in which are grouped the exhibits of forestry, fish

and game. Natural woods are shown by foreign nations, and the states and territories of the United States. The products of the various woods, finished or partially finished, is shown by individual exhibitors or firms.

Oregon's exhibit in the line is undoubtedly the finest shown at the fair. Among the foreign countries which are represented in the building are Honduras, Japan—the land of the Mikado having an elaborate display of camphor production—Mexico, Germany, Ecuador, Brazil, France, Great Britain, Australia, Canada, Italy, Siam, New South Wales and Paraguay.

Outside the buildings are many acres set apart for demonstrations of government methods of tree planting and forest management. The exhibit of Germany in this branch is fully as large and comprehensive as that made by the forestry bureau at Washington.

Interest in the fish and game groups centers in the collection of live fish and game displayed by a number of states. The aquarium occupies a space 185 feet long by 35 feet wide. There are a number of pools, some of them 40 feet long, for the display of marine specimens of large size. There are fishes from the South sea and fishes from the frozen depths of Labrador.

In other parts of this palace of wonders are to be seen flocks of live birds, such as the pheasant, the quail and the turkey.

The department of anthropology is not confined, as usually, to the dead past. One of the permanent Washington university buildings is devoted to relics and inanimate exhibits of the department of anthropology. More inter-

esting, however, is that branch of anthropology which occupies a large tract of ground just southwest of the university buildings. A park has been laid out in which are located villages occupied by representative families from various primitive peoples. Included in this outdoor branch of the department of anthropology are workshops of the Indians, types of buildings of native construction according to the architecture prevailing among the least civilized.

Festival hall, the biggest auditorium on the exposition grounds, stands just in front of the Art palace at the head of the main cascade, on the top of Cascade hill, at the center from which the avenues of the exposition's main picture radiate like the ribs of a fan. It is one of the most ornate buildings on the fair grounds, although it is small compared to the big exhibit palaces.

The auditorium of Festival hall will seat several thousand listeners, while the stage is equal of the accommodation of a chorus of 2,000 or more voices. In the rear of the stage is the great organ, a masterpiece of 20th-century workmanship, with its 5,000 pipes, its 140 stops and its numerous mechanical accessories never before employed. During the months of June, July and August Festival hall will be the scene of a series of festivals on a scale never before attempted, and to be participated in by musical clubs and societies from nearly every state in the union. An appropriation of nearly half a million dollars has been made by the exposition for bands of all nations, which upon occasion will be assembled into one great band of 2,000 pieces.

Dust Vice Spray for Trees

From the Chicago Tribune.
 Within the past few years there has been developed in some of the western states, and especially in Missouri, a new method of spraying fruit trees and plants. While the term commonly employed is "spraying," it is not spraying at all, but rather "dusting." The new method is simply to use lime dust as a conveyor for poisons and fungicides. The dusting process has been developed, to some extent, by orchardists who had not sufficient water supply, or whose orchards were so large that they could not be sprayed with liquid at the proper time, or whose orchards were located on hilly ground, over which a heavy tank of liquid spray mixture could not be hauled when the ground is soft.

Later machines of different styles have been developed, and larger machines have been made, utilizing the revolving fan, such as is used in the newer blacksmith forges, to furnish the draft. The lime dust simply falls into this strong draft, and is carried to the trees.

The first persons who used this method of fighting insects simply added a pinch of lime to the dust, and applied to the foliage of their trees. Later it was desired to use the powder as a fungicide as well as an insecticide, and a powder which was intended to take the place of Bordeaux mixture was made by slaking lime with a bluestone solution. This has been used almost exclusively as "dry Bordeaux mixture," by all who employed the dust process, with varying results.

Last summer there were numerous complaints that this Bordeaux mixture did not prevent damage from apple scab, and at the request of the horticultural department of the Missouri experiment station, Dr. Bird, acting chemist of the station, made some experiments in an endeavor to perfect a dry Bordeaux mixture which would be efficacious.

Dr. Bird recommends that the blue-stone solution be strained through four sacks, thus retaining the copper sulphate in the form of very fine particles.

This is then mixed with air-slaked lime, which absorbs the remaining moisture, and the copper sulphate is thoroughly distributed among the particles of lime. When ready to use, this stock solution is mixed with other air-slaked or ground lime, and applied to the trees. If a powder is wanted, Paris green or London purple is added to the mass.

The advantages of the dust are that the work can be done much more quickly, and the cost is not nearly so great. A wagon with enough prepared lime to spray an entire orchard will not weigh nearly so much as a tank filled with the liquid mixture. It can be hauled through the orchard when a tank filled with water would mire in the soft earth. The work of applying the dust can be done so much more quickly and it is especially suited for use in large orchards.

A large force is required to properly spray a large orchard, for the work of spraying is not like plowing or other farm work—when one tree needs spraying, all the trees in the orchard need it.

A number of persons who use the dust process begin this work about 3 or 4 o'clock in the morning and continue until the dew has gone from the trees.

While some claim that moisture on the leaves is not necessary, it is undoubtedly true that best results are secured when the dust is applied to damp foliage.

As to the comparative merits of the dust and liquid processes opinions differ. Most persons claim that the liquid is more efficacious. The loosened expense of the dust, however, and the fact that it can be used in orchards which are almost inaccessible with liquid outfits, makes the dust process more popular.

Still other persons claim that the dust process produces better fruit than the liquid because of the fact that the poison can be used at almost any strength with the dust process, while in using the liquid process one must be careful to not burn the foliage.

When the dust process was first discussed in Missouri, orchardists in other parts of the country hooted at the idea. But so popular has the dust process become where it has been investigated that last season the New York experiment station, as well as a great many others, experimented with the dust, and report satisfactory results. These experiments will be carried on again this summer all over the country.

From the Springfield (Lane Co.) News.
 When county party lines are drawn too tight they are apt to prove detrimental to the county.

PAT MAGEE'S WIFE.

Lena Barrington, in Longman's Magazine.
 Livin' wid Pat Magee.
 In a cabin forment the bay,
 Sea is front an' bog behind,
 Stretchin' for miles away,
 An' often he comes an' says—
 "Honey," he says, says he—
 "Do ye ever repent the day that ye went An' married wid Pat Magee?"

There's a bit av a childis now,
 Playin' around the floor,
 Runnin' about wid a laugh an' a shout
 In and out av the door;
 Mick wid his father's eyes—
 "Bits av the sky for blue,
 An' aich hair av his head like a golden thread.
 An' the voice av his father, too,
 An' often he comes an' says—
 "Honey," he says, says he—
 "Do ye ever repent the day that ye went An' married wid Pat Magee?"

Never be tellin' a man—
 All that he'd like to know,
 Give him the half av the whole that he wants,
 An' he'll love ye the better so;
 But times I misdoubt he knows,
 Nearly as well as me,
 That I'll never repent the day that I went
 An' married wid Pat Magee.

Cheese, Venerable in History

New cheese, the announcement of whose readiness to mingle in the giddy whirl of market operations recently was made in this department, is beginning to scramble into the market reserved seats. If it could speak—and some of it almost can—it could reel off yards of interesting matter pertaining to its ancestry. The history of cheese is as old as some grades of limburger appear to be. It is positively known that it was in business as long ago as 1400 B. C. Many scriptural references to cheese are better translated as "curdled milk." The Greeks are supposed to have been the first to push the good thing along. When Homer scratched off the Iliad he stopped every few minutes to get inspiration from a chunk of cheese. Aristotle once had occasion to refer to the "renneting of milk with the sap of a fig," and everybody knows he was talking about cheese. Hippocrates frequently touched upon it, as did Columella and Pliny. The Romans discovered limburger, and the fall of their empire followed in due season. The early Egyptian manufacturer a certain brand from sheep's milk, then from goat's milk, the product from the latter eventually being called butter. It is said that "Alec" the Great

never began a conquest unless he was well supplied with fancy cream cheese, and Mark Antony couldn't possibly have thought of his splendid tribute to the fallen Caesar if he hadn't had a slice or two just before he mounted the steps.

There are approximately 150 different varieties of cheese served up to the American palate at the present time. Last year, which was by far the greatest in the history of the cheese industry, something like 300,000,000 pounds of the product were handed out. Annually about 1,000,000 pounds are imported from abroad, half of this amount, exclusive of the holes, coming from Switzerland alone. Cheese depends for its characteristics upon the kind of milk used, upon the process of making, upon seasoning, and particularly upon conditions incident to the ripening or the curing. Many grades of cheese are not fit for the stomach, but eminent scientists say that pure cheese is full of nourishment—and particularly upon conditions.

Cheese your county officers at their merits, &—the party.