

ORIGINALITY OF THE PORTLAND FAIR

PORTLAND, Ore., April 15.—In these enlivened days, twelve long years since the world's fair at Chicago blossomed as a seven days' wonder, a world's fair must be original if it is to be at all popular. The millions who attended the Chicago fair went with a determination to see something new, and afterwards about having seen it. It was as novel and delightful as a tooth-ringing is to a cross baby. The fairs since Chicago have succumbed to comparison with it. At Chicago the millions marveled at a statue that was presumed to have been made of solid silver. Show windows were made of the Chicago world's fair a real gem, the "sure enough" silver statue in place of the false one exhibited there, and nine times out of ten would sniff and say, "Aw, I saw it at Chicago."

The Lewis and Clark exposition will be in some ways like previous world's fairs. This is inevitable. There will be exhibits from states and from foreign governments, housed in buildings of wood and staff, and there will be displays by manufacturers and other things every man knows, including a very noisy, very popular amusement street, which, in this instance, will be called the trail. But the exhibits will be live exhibits, intended to show processes of manufacture rather than mere collections of finished products, and the buildings, while still for the most part made of wood and staff, have an individuality of architecture that distinguishes them from the palaces of previous fairs, while the amusement street will have a new setting, entirely original and unique, and there will be new shows to see, better shows for the same money than those at earlier expositions.

But, laying aside these considerations, the exposition will offer many attractions not possible at earlier expositions. These attractions will be so different as to place the exposition in a class distinctly by itself. They will make the western world's fair, which cannot compare in size with the world's fairs held at Chicago, St. Louis, more attractive to most people in many ways than were these earlier gigantic enterprises.

The fame of the Lewis and Clark exposition's forestry building has spread as far as the fame of the exposition. Lawrence D'Orsay, the great English actor, who visited the exposition the other day, confessed to an ignorance of the nature of the fair, but had heard much of the forestry building. The building is once an exhibit palace and an exhibit.

Built of huge logs cut in the Oregon forests, the structure is typical of the forest wealth of the Pacific northwest. The forestry building is 200 feet by 105 wide, large enough to cover half a city block, and is extreme height is 76 feet. The building, while constructed of the raw products of the forest, is an triumph. Its immense solidity is in keeping with its nature, while its location, on the edge of the grounds, with the virgin forests in the background, is most appropriate.

Only a reduction of the description to the hard reality of figures and facts can impress one with the greatness of the structure. In its construction two miles of five and six foot logs, eight miles of poles and tons of shakes and cedar shingles were used. One of the master logs, weighing 200 pounds, was found to weigh 32 tons. If one of the base logs, 52 feet long by 6 feet through, were cut into standard size logs, they would amount to 13,000 end to end, would reach over thirteen miles. To figure it another way, one of these logs contains enough lumber to build a one story cottage, 40x40 feet in size, with six rooms, and a board walk to lead up to it; and then there would be enough wood left to kindle the fire in the grate for many months.

While in a general way the building looks like a mammoth log house, the details of the structure distinguish it and give it a uniqueness of appearance. In keeping with the general architectural excellence of the other exposition palaces. The upper half of the building is constructed of cedar bark shingles, laid in the usual manner; the ends are gabled, and two balconies are set into the ends, one above the other.

Every great exposition has had some sort of a water feature, generally artificially produced at great cost. Inclosed within the Lewis and Clark exposition fence is a natural body of water, 220 acres in extent, called Guild's lake. Guild's lake is by far the largest body of water ever situated on an exposition site, and the circumstances making it possible at earlier fairs.

The principal exposition palaces nestle among the trees on the crest of a slight elevation overlooking the lake, and the sloping lawns leading down to the water have been terraced and made beautiful by artistically laid out flower beds. Across the lake from the mainland, on a peninsula which to the eye appears to be a verdure covered island, are situated the United States government buildings, including the post office, structures characteristic of Uncle Sam's generous participation in world's fairs. From the peninsula or the mainland the view is equally entrancing. The water features will be made most of at the Lewis and Clark exposition. Here for the first time people may ride in a seductive launch, built over the Indian canoe, or a comfortable electric launch, on a real lake. The tour of the shore will embrace two miles of riding.

Another unique feature of the western world's fair will be the lake shore esplanade, a board walk over half a mile long, which differs from other board walks in that it is built over the water, on piles, like a bridge. The lake shore esplanade follows the shore of Guild's lake from the boat landing at the foot of the grand stairway to the American inn, in the extreme western portion of the grounds. It will be the most popular promenade both day and night.

Guild's lake is spanned by the bridge of nations, an ornate structure of wood and staff built in imitation of solid masonry, which is more than two thousand feet long, the longest bridge of its kind ever constructed. The trail, which is the name given the amusement street of the western world's fair, is entirely unique, one not possible at earlier expositions. It is located on the landward end of the bridge of nations, which, for a distance of 500 feet is constructed to a width of 150 feet. At various shows will be located on either side of a seventy foot avenue. The lake shore esplanade crosses the bridge of nations at the place where the trail begins. For the trail a number of new attractions have been secured, and there will be several aquatic features made possible only by the location of the amusement street over the waters of Guild's lake.



CHURCH STRUCTURE THAT WILL STAND FOR AGES

NEW YORK, April 15.—President Eliot of Harvard university, in a recent address, called attention to the fact that American cities are being built only for today, and that of existing construction little will be left to tell in future centuries of the work of the present. How long the towering skyscrapers which now line city streets will endure is a question over which engineers and architects differ, but all agree that the life of these steel skeletons clothed in thin walls of brick and stone will be short in comparison with the enduring monuments of the old world. But there is another side to the picture. The modern Towers of Babel, huge office buildings each sheltering during the working hours of the day people enough to populate a good sized town, may rust and decay within 50 or 100 years, yet here and there American builders are constructing great piles of masonry which are likely to be longer lived than the monumental buildings to which thousands crowd the east-coast and Indian oceans, and the medieval builders in their chosen field is surpassed by the scientific skill of the very men who in compliance with the needs of the day are erecting, for the most part, structures which will soon pass away.

The fact is that the abilities of the architects and constructors of the middle ages were not nearly so great as we moderns in our world of the past have humbled ourselves by thinking. As artists they have never since had their equals; but as structural engineers they seem to have gone "by guess and by gory" as the old Yankee farmer said when he built his barn. Instances of the failure of the old-time builders are numerous. Recent dispatches from Venice bring the news that the beautiful Church of St. Mark, the towering pile whose bronze horses look down on the plaza where the circling doves alight to eat the crumbs scattered by American tourists in its danger of collapse. The recent fall of the Campanile in the same city is a practical proof that these fears have a better foundation than St. Mark's has. Perhaps St. Mark's, built on the treacherous foundation afforded by the islands of Venice, is not a fair example of the failure of the old-time builders, but others are to be found in plenty. The history of English cathedrals is full of such cases. Years ago the English professor Wills remarked in a lecture on the Gloucester cathedral that "whatever may be said of the science of the medieval cathedral builders as shown in their masonry, I believe they had none. They worked experimentally. If their buildings were strong enough, they stood; if they were too strong they also stood; but if they were too weak they gave way; and they put up props and made the next stronger."

The great arches of the western front of Peterborough cathedral showed pronounced weakness only 150 years after they were built, and had to be wedged by a porch built to the center arch to half its height. The tower of the same cathedral had to be taken down and rebuilt after standing a hundred years or so. Again in 1885 it required reconstruction. The foundation was then discovered to be very poor. The great piers, eleven feet in diameter, had a skin of such a cemented stone only nine inches thick, and a core of untempered fragments which were nothing but rubbish. The center tower of Ely cathedral fell about 200 years after it was built, while one of the towers of Gloucester stood only 70 years. The piers and the walls of the same tower, as it now is, are eleven inches out of the perpendicular. The tower of York cathedral jammed its angle piers seven inches into the ground during its first century, and the action of water had eaten and crumbling all together. The result was a mixture of firm rock suitable to sustain anything, and treacherous areas which the action of water had eaten and crumbling all together. The result was a mixture of firm rock suitable to sustain anything, and treacherous areas which the action of water had eaten and crumbling all together.

on Morningside heights in this city. This magnificent church, which is to be one of the largest in the world will have for its central feature a tower and spire 250 feet high, weighing 138,000,000 pounds. To support such an enormous load four massive piers connected and supported by arches will be provided; and each of these piers must bear the burden of 34,000,000 pounds. Foundations for such masonry are harder to construct properly than the masonry itself, but the architects, Heins and Lafarge, had at their command knowledge and appliances not possessed by the men who built the old world cathedrals. Geology played its part in the enterprise, and when the operation known to builders as "stripping the ground" was completed, a careful study of its formation was made. It was then discovered that there was anything but plain sailing ahead. Some time in the remote ages into which geologists alone can penetrate, the process which created the palisades of the west bank of the Hudson had presumably disintegrated the east bank as well, pushing one stratum of rock upon another and crumbling all together. The result was a mixture of firm rock suitable to sustain anything, and treacherous areas which the action of water had eaten and crumbling all together.

Here came an illustration of the advantages possessed by the builders of today over those of several centuries ago. First, a diamond drill was called into service. This machine, which is to be compared to an enormous apple corer, has at one end a row of red diamonds which cut through the rock. When the drill has been sunk to the requisite depth, the core of rock within it can be drawn to the surface and examined at leisure. The conditions disclosed by the drill were regarded as rendering the laying of adequate foundations difficult but not impossible, rock of the most solid character being found at varying depths below the surface. For the spots on which the chief supports of the cathedral were to rest a minimum requirement of two feet of first class rock was fixed, and to obtain this it was necessary to excavate in one place to the depth of fifty feet. When solid rock of sufficient thickness was exposed, it was smoothed and prepared for the concrete, of which enormous masses were used to bring the foundations for the columns from six to eight feet below the level of the ground. Today one of the great arches, with its two completed piers, two others partly built and eight pillars, each made up of two huge monoliths, the largest ever quarried in this country, are standing as nearly eternal as anything made by human hands can be. The work so far accomplished represents an expenditure of about \$2,000,000, including \$750,000 for the masonry and twelve years of hard labor. It marks the beginning, however, of only a portion of the great edifice; the long and lofty nave has not been begun.

BIG BOOM IS NOW ON IN THE KILLING OF WHALES

NEW BEDFORD, Mass., April 15.—A great revival is on in the whaling industry, and a return to the prosperity of the rich whaling days of long ago is expected. The boom is the great topic of the whaling men who gather along the wharves on the "Brightman's" as the veteran "stop chest" outfitters' store is called.

The talk of a bright outlook for a revival in the whaling industry that made this port in the past one of the busiest on the American continent, before the advent of the steam whalers, which, to a large degree, drove the sailing whalers to sea and the whaling fleet to the reported great success in the number of sperm whales in the south Atlantic and Indian oceans, are the followers of whaling records among the local shapers are now predicting for New Bedford a return in part of the great money making days of one and two score years ago.

Nineteen of the New Bedford whaling fleet, all of them sailing vessels, are now in the south Atlantic, and on the Pacific, chasing bowhead, sperm and right whales for oil and bone, and in port are five of the most noted record makers of the past, which are being fitted out for a try at the sperm whales and sea elephants that are said to be swarming in the Antarctic. Half a dozen years ago the sperm whaling industry reached the lowest point in the history of the business, when the oil was not worth more than 40 cents a gallon on the market, and the few vessels that remained in the pursuit of the whales were bringing in or selling home less than 15,000 gallons yearly.

A year ago this time came the first notes of the revival of interest among whalers of this section, but this spring the rush to the whaling grounds is beginning with a sharp spurt in the way of outfitting for long voyages. The market for the whaling sperm oil today is about 60 cents a gallon, and as there is a good profit in the oil for the whaler at 50 cents a gallon, this and the heavy repetition increase in the whales that produce this oil are given as reasons for the renewal of interest in the industry.

Those of the vessels in port now and making ready for the voyage are the bark Wanderer, Capt. Timothy Allen, agent; Bark Bertha, Capt. Avery, agent and master, and the bark Canton, whose agents are J. & W. Wing. These three vessels are among the best known whaling vessels on the high seas, and have made some of the most notable voyages in the history of New Bedford shipping. During this month yards will be slung, rigging set, final coats of paint applied, and the crews, assisted by the coopers, will set about knocking great oil barrels into "hooks" for packing in the hold; then, after being provisioned and outfitted, the three craft will start on their way, and the whaling will drop out of the harbor for two years or more cruising in the South Atlantic and Indian oceans.

On the way to the port at the present time is an addition to the local fleet in the brig Sullivan, formerly owned in Boston, but late of Philadelphia, which has been purchased by Capt. William Hegarty and a party of Connecticut capitalists, who have been convinced that the great whaling revival has begun. As soon as the Sullivan ties up here work will be immediately begun on fitting her out for a sperm oil and right whaling voyage, and she will be commencing her cruise in a few days. A notable addition to the long list of captains hailing from this port.

Other vessels that are fitting out at the present moment are the Daisy, the Harry Smith and the Golden Bell. The two latter vessels are preparing to take out supplies to the New Bedford whalers that are now on the grounds in the Antarctic and will remain until the next ice gives them the opportunity of returning home to repair. The big Harry Smith is provisioning to go out to Dominiqua and Martinique to carry supplies, but will first be towed to Portland, and there take on shocks and hoops for the making of barrels among the fleet. While out there she will call at the Windward Islands and at the Azores to take on board the catch that has been tried out by the fleet and left for shipment to this port.

Those that were too small to send around Cape Horn for the arctic fishery two or three years ago escaped being demolished for the copper and drift-wood that had built them up, and they yielded and were placed in commission for the south Atlantic, where they have been making astonishing records in the past two years. Among the big catches lately reported was one from the Morning Star, out a year and two months, and which sent home 1,200 barrels of sperm, each barrel of 31½. The schooner Perle Varella tried out and sent home after sixteen months 1,000 barrels. Both of these catches give a fair idea of the abundance of sperm whaling, when it is realized that five years ago it would have been rare for a vessel to have gathered as much in the course of a four year voyage.

Another idea of the impetus that is on in the trade at the present time became known on the recent departures from this city of well known whalers for the Pacific coast. On Wednesday last Capt. Jim Tilton and Capt. Cottle left for San Francisco, the former to join the steam whaler Alexander, and Capt. Cottle to take command of the Belvidere, both of which are owned here, and in the arctic fisheries. On Monday Capt. Bodish went out to take command of the William Baylies, and it is understood that in the course of a few days Capt. Wallace Ashley will also leave for Frisco to take a mate's berth on the Monterey of this port.

After being away for more than two years the bark A. R. Tucker is expected back in the course of a month. Her late voyage has been particularly successful inasmuch that she secured 325 barrels of sperm in a year, while the bark Greyhound, out a year and a half, sent home 575 barrels. Almost a record breaker among the home vessels were the bark Josephine, which on her last voyage of fourteen months out sent home 1,400 barrels of sperm and 500 of whale taken from bow-heads. In those days New Bedford had on the ocean, searching for the sperm producing whales, nearly 100 vessels. Some of them never will return to port, others are spending their last days competing with the steam whalers of the Pacific, while a few have been broken up or allowed to rot at the local wharves. Yet that the quarter of a century that has passed has not changed the old picture of the harpooner, holding the typical primitive harpoon with fixed head and two bars, was a familiar figure. In those days after the harpoon was hurled the cry came "stern all," and the oarsmen backed water. The line ran out and as it was turned about the loghead the boat began to fly through the water, while the harpooner and officer in the stern changed places stem for stern, oftentimes a risky attempt for the pair of them.

HOW UNCLE SAM TESTS THE WIRE WOUND GUNS

WASHINGTON, April 15.—The war department at Sandy Hook is just entering on the test of the wire wound gun, a test which will determine whether or not that type of weapon will be added as a standard weapon to our army and navy service.

The wire wound gun problem is a good many years old. Every one at all interested in ordnance matters has heard of the Brown segmental wire wound gun, yet there are probably very few people who could tell what a wire wound gun really is, or what the segmental part of it comes in, or whether the arm is intended for the infantry or for seacoast defense. The war department is not saying very much about the matter just now, but it really will be a more momentous decision than is generally understood. It does not involve any revolutionary change in the system of armament, but if the gun is adopted, either the Brown gun or some other wire wound gun, it will mean adding a new weapon to the American offensive and defensive power that unquestionably will be on a plane with the latest developments abroad.

Wire guns have for some time been a standard arm of the British army and navy. If the testing board at Sandy Hook decides in favor of adopting it in the United States service, it will have something at least as good as anything in use abroad. If the board does not decide favorably it will mean simply that the wire wound gun is no essential improvement over the service gun now in use in the service. Whichever way the decision goes, however, we are having a complete test of the wire wound gun now, and the most extensive result, may get a thoroughly modern weapon, the invention of one of its own officers, rather than have to rely on a private company for furnishing it with a patented article.

The wire wound gun is what its name implies, a gun that is built up of wire in sections around a tentative inner tube. In that most wire guns are all alike, and there is nothing in their outside appearance to distinguish them from the ordinary jacketed gun. But there is a good deal in the gun that does not appear to the eye. In the first place they are cheaper to make. They can be built of less expensive materials, and they are lighter after they are made. It has been claimed that they are enough lighter to allow one additional inch of gun in the battery of a first class cruiser or battleship, but this the war department says is not so. However, they are enough lighter to make some difference in the handling of the gun on shipboard.

The first essential of the wire gun is an inner tube of fine steel for the bore and powder chamber, but this is to be reinforced with a heavy wire jacket made much lighter than the inner tube of a solid steel gun. Then comes the winding with wire. For there is a special method of winding the wire, one-tenth of an inch in size, is used to prevent rusting. The wire has a tensile strength of 175,000 pounds to the square inch, and is wound upon the inner tube at a tension of 930 pounds. This tension varies increasingly from the inner coil outward, so that the lathe has to be almost a thinking mechanism, and the wire must be carefully and carefully handled to produce just the desired result.

Now, the advantage claimed for the wire gun is that it will sustain a heavier bursting charge than a solid steel gun. The wire is so wound that it takes up the strain of the discharge just when and where the most needed, and the wire envelope recovers its shape better than does the solid steel jacket, so that the life of the gun is practically limited only by the wearing out of the rifling and the rifling is worn the comparatively inexpensive inner tube can be replaced at less expense than would be the case in boring out one of the big built up steel guns.

As has been said, the wire gun problem has been before the war department some time, and a number of tests of the Brown gun, without entering into any controversy on the respective merits of the Brown and Crozier guns, one may refer to the course of the department's experiments run up to date. The Brown gun has been tested before by the department, and appropriations have been made at various times for the construction of the work. Gen. Crozier, now chief of ordnance, designed the gun which bears his name while he was captain in the Ordnance office. It was ready for manufacture about the same time the Brown gun finished its first test. But the gun was never built, and when Gen. Crozier was promoted and became chief of the department he took good taste to him that he should take up his own invention and push it while he was the head of the department the chief of ordnance has no peculiar interest in the test.

However, when the appropriation was made for building and testing a six inch Brown gun, he called the attention of the secretary of war to the fact that the department had a gun of its own which might as well be tested in competition with the Brown gun. At the same time he requested to be relieved of duty from the board of ordnance and fortified with a pension to have to pass on the wire gun. So the testing has been turned over to the chief of artillery of the army, Gen. J. H. Baker, from whom the final decision will be rendered.

The department and the Brown company are not particularly keen on giving out the exact cost of making this respective gun. But it is said that there was an appropriation of \$41,000 made for the construction and purchase of ammunition for the six inch Brown gun. The Crozier gun, like the Brown gun, has been patented, but the patent has been thrown open to the government and to the public, so that the chief of ordnance has no peculiar interest in the result of the test, though he is naturally holding aloof from any supervision over it.

Mushrooms Pay—Large demand; easy to grow in cellar or stable, or you can utilize old boxes, crates, barrels, etc., and initial expense is very small. The Chicago Tribune, Dec. 18th, 1904, stated that a motorist makes \$1,500 a year, during odd moments, growing mushrooms in a basement. Learn the profitable industry and add to your income. Instructions for making beds, copy of U. S. Government report and illustrated book free on request. U. S. Mushroom Co., 314 Old Fellows Bldg., St. Louis, Mo.

1905 BASE BALL RULES. League Base Ball Rules for 1905. Complete and up to date. Includes rules for baseball, softball, and tennis. Price 10 cents. Write to the National League of Professional Baseball Clubs, 100 Park Street, Boston, Mass.

Advertisement for 'DON'T BE SO THIN' featuring Dr. Williams' Pink Pills. The text describes the benefits of the pills for various ailments related to thinness and weakness, such as indigestion, nervousness, and general debility. It claims to be a 'miraculous' cure for these conditions.

Advertisement for 'ABSOLUTELY FREE' featuring Dr. Williams' Pink Pills. The text offers a free trial of the pills, promising that if the user does not feel better within a certain period, they can return the pills for a full refund. It emphasizes the 'miraculous' nature of the cure.

Advertisement for 'DR. KLINE'S GREAT NERVE RESTORER'. The text describes the medicine as a powerful treatment for various nervous system ailments, including neuralgia, migraines, and general nerve weakness. It claims to be a 'miraculous' cure for these conditions.

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