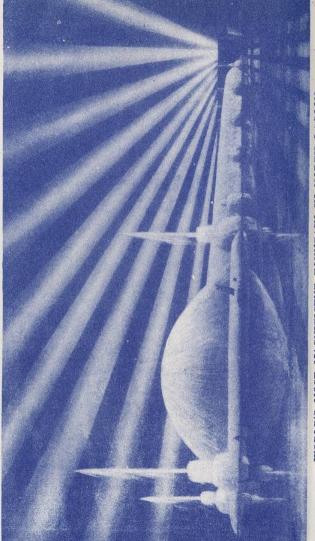
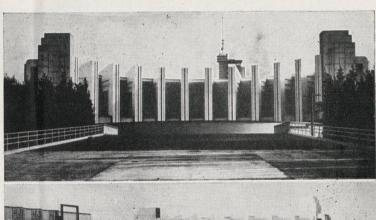


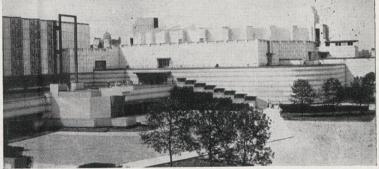
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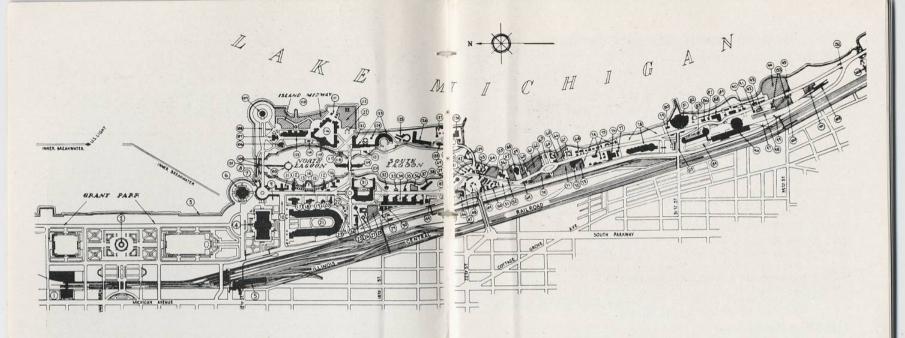
NEW FEATURE OF THE 1934 EXPOSITION MAGNIFICENT FOUNTAIN IN AMAZING MOST WORLD'S

# WORLD'S FAIR, 1934 CHICAGO





PYLONS, HALL OF SCIENCE COURT OF HALL OF SCIENCE Published by American Autochrome Co., 300 W. Grand Ave., Chicago



1 ART INSTITUTE 2 BUCKINGHAM FOUNTAIN (3) AMPHIDIAN NAMP A FIELD MUSEUM (5) ILLINOIS CENTRAL STATION (6) SHEDD AQUARIUM (7) NORTH ENTRANCE B EITEL'S ROTISSERIE (4) RAPID TRANSIT TERMINAL COURT OF HONOR ABMINISTRATION BUILDING THOMPSON'S RESTAURANTS GRANDSTAND ( BANDSTAND & STAGE (S) AVENUE OF FLAGS ( ITALIAN PAY & RESTAURANT (G SEARS ROEBUCK BUILDING (AT) (8) ILLINOIS HOST HOUSE (A) SWEDISH PAVILION ② CZECHO-SLOVAKIAN PAVILION AMERICAN RAR & STANE SANITARY @ LINCOLN GROUP 3 SOLDIER FIELD

(2) SAYRIBE

3 ST PAUL'S CHAPEL

(3) JAPANESE PAVILION 29 BENDIX LAMA TEMPLE SWISS VILLAGE ( INT ST ENTRANCE SERVICE BUILDINGS HALL OF SCIENCE CACTUS PERGOLA GENERAL EXHIBITS BUILDING GOOD HOUSEKEEPING HALL OF RELIGION BYRD'S SHIP THE NUB-HENRY C LYTTON & SONS (G) FLYING TURNS DOUGHNUT MACHINE CORP.

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THE OASIS BELGIAN VILLAGE (27) CHINESE PAY. & RESTAURANT (SI) ALPINE GARDEN (52) HUNGARIAN BAZAAR (3) GENERAL CIGAR CO. SA STREETS OF PARIS HAWAIIAN GARDENS TIME & FOURTUNE BUILDING (S) OLD HEIDELBERG INN (57) ITALIAN VILLAGE (56) PANTHEON DE LA GUERRE CHRISTIAN SCIENCE MONITOR (9) TUNISIAN VILLAGE SPANISH RESTAURANT SPANISH VILLAGE EDWARDS RANCHO

> (5) IRISH VILLAGE DESAIBLE CABIN (13) VICTOR YIENNA RESTAURANT FORT DEARBORN HOME PLANNING HALL ( crown roop 18) FORD MOTORS TO AMERICAN COLONIAL VILLAGE (19) MAYAN GROUP (1) OLD ENGLISH VILLAGE ( FRIGIDAIRE HOUSE

MIDGET VILLAGE

GENERAL HOUSES INC. WILSON SHOW MASONITE HOUSE WHITING CORP & MASH MOTOR SLDG ROSTONE -INC HOUSE BROOKHILL LABORATORIES LUMBER HOUSE CHI. & NORTHWESTERN R. R. COMMON BRICK HOUSE GOODYEAR LANDING FIELD OWEN'S ILLINOIS GLASS CO. (5) SOUTH ENTRANCE FLORIDA HOUSE (6) TRAVEL & TRANSPORT BLDG. HOUSE OF TOMORROW MACHINERY DEMONSTRATION (8) OUTDOOR RAILWAY TRAINS (9) 35 D ST ENTRANCE THE HALGER POTTERIES-INC. (4) GREYHOUND SERVICE STATION RECEIVING STATION 34 ST. PUMPING STATION 100 PLANETARIUM BRIDGES TE RIPLEYS- BELIEVE IT OR NOT ( GENERAL MOTORS BUILDING ( FOUNTAIN

(13) BLACK FOREST VILLAGE (82) PALWAUKEE AIRPORT

CHRYSLER TRACK

CASINO DE ALEX

TELEVISION SHOW

31 U STREET ENTRANCE

STANDARD OIL BUILDING

WINGS OF A CENTURY

(4) HOME & INDUSTRIAL ARTS GROUP (83) CHRYSLER BUILDING

KOHLER BUILDING

JOHNS-MANVILLE

CRANE CO.

SOUTHERN CYPRESS HOUSE

STRAN-STEEL HOUSES

ARMICO FERRO ENAMEL HOUSE (85)

( ISLAND MIDWAY (CONTINUED) SWIFT BRIDGE & BAND STAND WONDER BAKERY PERSON'S EXHIBITS TERRATZO PROMENADE ADLER PLANETARIUM SLAND MIDWAY AUTO SCOOTER CAROUSEL CYCLONE COASTER DUTCH VILLAGE FERRIS WHEELS PLEA CIRCUS KING SOLOMONS TEMPLE BEACH MIDWAY RESTAURANT (II) MOTORDROME NIGHT CLUB RIDE OF THE CENTURY SHOOTING GALLERY SWANEE RIVER BOYS STREETS OF SHANGHAI THE WORLD BENEATH THE BUG RIDE TRIP DOWN THE LOST RIVER THE CATAPULT (2) RESTAURANT WINSTON RACERS

SOCIAL AGENCIES U.S. HILITARY CAMP AGRICULTURAL GROUP FISH BAR FEDERAL BUILDING STATES GROUP THE DOODLEBUG SCHLITZ GARDEN CAFE ARMOUR BUILDING SCIENCE BRIDGE WORLD IN MINITURE SOCIAL SCIENCE BUILDING ELECTRICAL GROUP CEYSTAL HOUSE ENCHANTED ISLAND

HORTICULTURAL BUILDING

MEXICAN VILLAGE

ANIMAL FAIR

(S) HOLLYWOOD (31) SEARCHLIGHT BANK (B) SOUTH APPROACH (13) FARM HOME GROUP FEDERAL HOMES UNIVERSAL HOUSE CONT. CROWELL PUB. CO.

#### HOW TO REACH THE FAIR GROUNDS

#### 12th and 14th Street Entrances:-

By Street Car-Roosevelt Road cars cross I. C. tracks over viaduct to terminals near 12th and 14th St. gates.

By Elevated-To Roosevelt Road and walk east.

By Chicago Motor Bus Lines-To the Loop, transferring to Busses that run to entrance.

By Illinois Central Suburban Trains-To 12th Street Station and walk east.

#### 18th Street Entrance:-

By Wabash Avenue Cars-To 18th Street entrance or by Cottage Grove or Indiana cars to Cermak Road, thence by Cermak Road extension to entrance.

By Elevated-To 18th Street Station and walk east.

By Chicago Motor Bus Lines-To 18th Street and walk east. By Ilinois Central Suburban Trains-To 18th Street Station.

#### 23rd Street Entrance:-

By Street Car-Cottage Grove or Indiana lines to Cermak Road and by Cermak Road extension to 22nd Street gate.

By Elevated-To Cermak Rd. Station and walk east. By Chicago Motor Bus South Side Lines-To 23rd Street.

By Illinois Central Suburban Trains-To 22nd Street Station and walk across viaduct to entrance.

# 31st Street Entrance:-

By Street Car—Cottage Grove cars to 31st Street and walk across viaduct.

By Elevated—To 31st Street Station and walk east half a mile.

By Chicago Motor Bus Lines-To 31st Street.

By Illinois Central Suburban Trains-To 31st Street Station and walk across viaduct.

## PARKING AREAS

For parking cars, the nearest parking area to the ground is adjacent to the Illinois Central tracks from 16th to 26th Street and two blocks wide. Room for 10,000 cars are reached by ramps and bridges from the Inner Drive.

Adler Planetarium. Northerly Island off Grant Park. The only institution of its kind in this country. Its huge planetarium instrument vividly reproduces the sky and all the celestial movements. Its museum contains many items of historical interest and instruments to illustrate modern methods of observing.

## Transportation Within the Grounds

60 Greyhound semi-trailer buses operate on high speed lanes over the whole length of the Fair grounds, 234 miles, with 10 station stops. Fare 10 cents. Round trip with stop over privileges 25 cents. The buses also go to Northerly Island but move slowly with pedestrian traffic. They seat 90 persons facing outward.

No automobiles are allowed in Fair ground. Trucks are

allowed in only at stated hours for deliveries.

900 wheel chairs in charge of college students are available. 30 Gondolas, 30 launches, holding 50 people and speed boats ply upon the lagoon.

Amphibian planes for sightseeing, 10 passenger twin-motor

Sikorskys. Also shuttle service to airports.

Ramp for visiting seaplanes just north of Shedd Aquarium. Goodvear dirigible Puritan-for sightseeing.

Captive balloon rising 1,000 feet, may see 100 miles.

Launches run in the lake from the 31st Street docks and south end of Northerly Island.

Water taxi service from the Exposition to Wrigley building and Navy Pier.

Lagoon sightseeing boats, cutting their price in half, become the newest of many factors that combine to make the visitor's dollar worth more than that of 1933. In addition, the boats provide a new ferry service from dock to dock for ten cents a ride.

Throughout the grounds this year there are plenty of free toilets and washrooms. There are more than 100,000 free seats for those who are tired from sightseeing; in many of these places it is possible for visitors to enjoy free entertainment while relaxing.

Rolling Chairs. The rolling chair service in 1934 practically doubles that of 1933. A new feature of the chair service is a "taxi chair" that can be "picked up" by tired pedestrians at any point in the grounds. Rickshaws, which proved a popular feature in 1933, reduced their rates about 15 per cent.

The equipment includes: 450 single roller chairs, 25 double chairs, 40 rickshaws, 50 self-propelled invalid chairs, 150 baby

go-carts, and 50 "juvenile" roller chairs.

Many of the college track and football stars who propelled the chairs in 1933 came back this year. In a number of cases the college boys made good connections with business firms and individuals who were impressed with the intelligence of the service rendered, officials state.







ADLER PLANETARIUM SHEDD AQUARIUM MARSHALL FIELD MUSEUM

Practically every big college and university in the United States is again represented in the personnel of the roller chair crew.

#### INFORMATION FOR MOTORISTS.

Estimates place the number of automobiles which came to the Fair in 1933 at 1,400,000, with the number of passengers carried at 3,500,000. This is only 500,000 less than the railroads carried into Chicago.

Roads to the Fair from all parts of the country are plainly marked by bright, readable emblems. Official information booths will assist the motorist at hundreds of points on highways within 50 to 100 miles of Chicago; they are able to tell him all he wants to know about hotel or room accommodations, driving conditions, and the Exposition.

Motorists can park within walking distance of the Fair grounds, in well-protected parking areas, for a reasonable charge. There is room for parking 25,000 cars within walking distance.

After the motorist arrives in Chicago he will find first-class rooming or auto camp accommodations available at prices from one dollar a day. During the Exposition downtown traffic is regulated in a manner to make driving easy for out-of-towners. However, if they prefer not to drive through the city, they may park on the outskirts and take a street car, bus, taxicab or the swift Illinois Central electric suburban service to any of the principal World's Fair gates.

Tourists will find hotel accommodations during the Fair period from one dollar a day up. Private homes will be offering first-class rooms for as little as 75 cents a day, many of them with breakfast served for an additional 25 cents.

The new Fair has more restaurants than the old, serving a much greater variety of foods and better equipped to handle large crowds. Prices are the same as those applying to the same types of foods and service in Chicago and other large cities. It is possible to buy a meal for as little as 15 cents. The average cost is between 50 and 75 cents, according to Fair officials.

Large oil companies are turning their filling stations into World's Fair information booths, with attendants ready to assist the auto traveler with road information and facts about Chicago and the Exposition. Dealers and their employes in 8,000 Ford agencies throughout the country are trained to answer any question that might be asked about Fair travel, and to assist visitors in budgeting their trips.

#### THE WORLDS FAIR OF 1934

has many improvements over the 1933 Fair. Foremost among these are the:

1. Foreign Villages of which there are about sixteen, most of them arranged along both sides of what was called in 1933 the Midway.

About \$2,000,000 was invested to erect these villages and they include the Old English, Irish, Black Forest, Belgian, Streets of Paris, Spanish, Italian, Swiss Bavarian, Dutch Midget Village, Tunisian, Oasis, Streets of Shanghai, American Colonial and Mexican.

- 2. A Magnificent Fountain, the largest in the world, extending south from the 12th Street bridge for 800 feet and adding splendor to the lagoon.
- 3. Illumination that is greatly improved, making the night scene one of dazzling beauty. The waters of the lagoon are brilliantly lit from below and the flowing waters of the Fountain are floodlighted from within with changing colors so that the whole lagoon dances with iridescent hues. Framing the Fountain is an Aurora of light while at the south end the beams of the two billion candle power scintillator weave giant patterns of light upon the back drop of the sky.
- 4. The Color Palette of the 1934 Fair makes it a new panorama of color. The key color of 1933 was a deep warm blue. That of 1934 is a strong wine red. White is used a good deal this year to relieve the strong reds, blues, orange, yellows, violet, green, gold and silver. All the principal buildings appear in new dresses of handsomely blended colors of rich beauty, but relieved with glistening white.
- 5. There are more Free Shows than in 1933 and the 1934 Fair dollar buys more. In lagoon pavilions and on floating theatres are free vaudeville shows, musical programmes, etc. In the court of science there will be demonstrations of the magic of science and many exhibits in various parts of the grounds are furnishing entertainment from band shell and stages.
- 6. There are more restaurants with low prices and there are many sidewalk cafes, beer gardens, etc., where drinks of all kinds are served at tables. There are no taverns, but restaurants are licensed to serve wines, liquors and mixed drinks. The foreign villages with their sidewalk cafes take one to the streets of the capitols of Europe.

The World's Fair of 1934 is truly an International Exposition. In foreign villages, foreign buildings and foreign exhibits 12 countries of Europe are represented, 5 countries of Asia, 3 countries of Africa and 5 countries in the Americas.

These are:

Europe, England, Ireland, Germany, France, Belgium, Holland, Spain, Italy, Switzerland, Bavaria, Sweden, Czecho-Slovakia.

Asia-Palestine, Japan, China, Manchukuo, Philippines.

Africa-Tunisia, Morocco, South Africa.

America-Mexico, Land of the Mayas, Porto Rica, Virgin Islands, Canada.

The most outstanding improvement of 1934 is the erection of 15 or 16 foreign villages at a cost of over \$2,000,000. This phenomenon was due entirely to the success which attended the construction of the Belgian Village in 1933 and the story of this is a veritable romance of business. Mr. G. M. Potie came over from Belgium with the idea of recreating at this Fair a Village of 60 historic houses of Belgium, nearly all of them dating back four or five centuries. He had taken accurate measurements of these buildings and had prepared moulds of walls, towers, turrets, foundations, doorways, etc. He was, however, unable to finance the construction. Mr. D. H. Burnham, the architect whose father created the World's Fair of 1893, took hold of the proposition and was able to induce material men and builders to take a chance. The village was completed. It was an authentic reproduction of mediaeval Belgium even to the weather beaten appearance of the masonry.

At first the Streets of Paris outstripped the Belgian Village in popularity. The village was weak in its publicity. Society flocked to the Streets of Paris and the Fan Dancers, the peep shows and the Street of the Nudes spread its naughty fame.

But people began to appreciate the charm of old world Belgium, a flair for the historic budded and grew and thousands began to flock to the winding streets and cobble-stoned market place of La Belgique Pittoresque. Finally the Belgian Village was drawing more visitors than the Streets of Paris and when the Fair closed in 1933 it had taken in \$650,293 in gate receipts. More than those of the Streets of Paris. Paris, Inc., had a greater revenue from concessions and was reported to have had a turnover of about \$1,500,000 and the Belgian Village probably did a gross business of over a million.

The success of these two features resulted in a flood of villages for 1934. Mr. Potie built the Swiss village. Mr. Burnham interested himself also in the Spanish and Tunisian villages.

The Century of Progress sponsored and erected Fort Dearborn. It cost about \$70,000 and was financed with a bond issue. It paid for itself twice over with a paid attendance of nearly 2.000,000 people. R. J. Sipchen & Co. were the builders and its success encouraged them to build the Black Forest village. Another firm of contractors, Beuttas Bros., built the American Colonial village.

THE COLOR SCHEME

The Fair this year is brilliantly bedecked in an entirely new dress of enchanting colors. Joseph Urban, the world-celebrated architect decorator who gave his unique genius to creating the color plan for the Exposition, unhappily died before he could personally supervise its application last year.

His associates who had worked with him in the development of the color plan came to the Fair to carry out his plans. Mr. Urban's plan of decoration was capable of variation in mass and in detail. Having had the opportunity of studying the effect of the whole as it appeared in the three-mile spectacle last season, the same artists worked all winter on a great new scheme of color effect, more briliant, more co-ordinated, the result of which is seen this summer.

The new color scheme is described by its creators as a "coordinated medley of scintilating color." Ten brand new colors were invented for the Fair-not one of them being comparable with any tint used last year. There is a distinctive purple-red or blue red in the new World's Fair palette that has never been used in exterior decoration before.

Shepard Vogelgesang, colorist on the staff of the late Joseph Urban in planning the 1933 Fair, had charge of the work of creating the new fairvland of color.

This year brilliant white is used a good deal to relieve the reds, blues, vellows, and greens. It is stated that the following percentages prevail in the redecorating plan: white, 30 per cent; green, 14 per cent; blue-red, 11 per cent; turquoise, 11 per cent; and other colors, 30 per cent.

#### ILLUMINATION

The Illumination of the Fair in 1933 was possibly the greatest single attraction that drew people to the Exposition. This year the lighting is on a much greater scale and the three miles of lake front presents the most dazzling display of lighting wonders that the world has ever seen.



SCIENCE

OF

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The Lagoons which were in in places comparatively dark are this year blazing with light. Two wonderful new features this year are the Giant Fountain in the North Lagoon brilliantly flood lighted from within and framed by an aurora of brilliantly colored beams of light. Away to the South the Ford Building raises a giant torch which burns a path a mile high into the heavens.

The Philadelphia Centennial Exposition of 1876 had the Welsbach Gas Burners as a new illuminant.

At the Columbian Exposition of 1893 in Chicago the carbon filament incandescent electric lamp was first used, the buildings being silhouetted with them.

At the Panama-Pacific Exposition in San Francisco in 1915 flood-lighting and indirect lighting was first used on a lavish scale.

The new developments of 1933 were neon and vapor tube lighting, indirect lighting, two billion candle power searchlights and decorative effects in lighting such as cascades and fountains

of light with changing patterns and colors,

In 1933 the art of lighting had reached such an advanced stage of development that sunlight actually was excluded from the interior of the exhibit buildings as being too inefficient, and at night it was replaced on the exterior of the buildings by varicolored indirect bulb lighting and single-line lighting in unique designs and colors. Lighting thus is a determining factor in the architectural treatment, permitting the use of windowless buildings with flat surfaces, supplanting facade decoration and making shape and mass the dominant characteristics.

The use of colored lights on colored wall surfaces, both indoors and out, was a revelation to the millions of Fair-goers. Taught by experience, illuminating engineers obtained different striking effects along this line at the 1934 Fair, including more fluorescent effects, giving an impression of depth. The latter

effect was achieved only rarely last year.

Structures of concessionaries have better interior lighting and improved exterior illumination. Floodlights are used very lavishly.

New fixtures for lighting walks and roads are seen in most parts of the grounds, with each section equipped with a "typical" kind of fixture adapted to its type of exhibits or entertainment.

The Sky Ride is lighted to make it appear as a unit, rather than as two isolated towers. Ten streamers of white light bulbs run along the cables, ending in a burst of red light at the towers.

Giant Ribbons of Light. The Giant Fountain in the North Lagoon bursts into a blaze of brilliance when darkness falls from floodlights under the 40 foot high dome of the fountain, and running the full length of the tunnel shaped sprays of water extending about 450 feet from the dome. All shades of green, red, amber, and blue, as well as white, color the water. A battery of 40 great searchlights shoots ribbons of colored light across the sky from the bridge in back of the fountain.

Lighting plays a major part in the Ford building. One hundred miles of electric wiring and a lighting display which includes more than 9,000 concealed floodlights turn the 11 acres of the Ford Park into a sea of shifting color.

The lighting effects which last year employed more miles of neon and other gaseous tubes than ever had been imagined before in the creation of a color spectacle at night, this year are greatly augmented. New effects, new fountains and great sheets of color are seen. The gaseous tubes give the opportunity for masses of light without glare or painful concentrated rays and offer to the large-scale decorative artist a new medium for both delicate and spectacular effects.

Electrical Building is accomplished by a combination of the Electrical Building is accomplished by a combination of incandescent searchlights, an electric fountain of unique design, and mercury vapor tubes presenting the appearance of a waterfall over the curved surfaces at the rear of the semi-circular court. Above the waterfall effect an aurora is created by 17 3-kilowatt incandescent searchlights, each having a light output of approximately 21,000,000 candlepower, mounted on the roof. These searchlights are adjusted so that the beams intersect above the fountain to form a brilliant silver fan in the sky.

Tower of Water and Light. In the center of the court is the electric fountain, a tower of water and light. Above the large basin, four rings of water jets are illuminated in different colors by a total of 140 floodlighting projectors. From the center rises supports for an inverted cone of polished metal, 85 feet in the air, that gorgeously reflects the sparkling colors of the water.

The Giant Scintillator. Away to the South the giant scintillator nightly assaults the forces of darkness. This consists of a battery of 24-arc searchlights having a total light output of 1,920,000,000 candlepower. Mounted on swivel and trunnion bases, these 36-inch projectors may be turned at any angle, to shoot variegated patterns of colored light into the sky. The scintillator is located on the shore of Lake Michigan just south of the Travel

and Transport Building. With a railroad track nearby, two locomotives can be brought into service to generate and shoot clouds of steam high into the air. A strikingly beautiful effect is by training the brilliant colored light on clouds of steam obtained and clouds of smoke exploded high above the ground by smoke bombs.

Brilliantly colored fans and plumes of light are thrown hundreds of feet into the sky, and a fiery battle of serpents is symbolized in a special display. In their initial position, the searchlights form an intensely bright aurora over the entire area.

Beautiful spots of soft light and color throughout the grounds are produced by the illumination of trees, shrubs, gardens and paths. Tree boxes around the trunks conceal floodlighting projectors, clear light from which is directed on the foliage to emphasize the natural beauty of trees and plants against a background of brilliantly colored buildings.

For paths and gardens in particular, a special mushroom-like reflector has been developed, 500 of which are used throughout the grounds. With translucent tops that will allow only a little light to glow upward, and standing less than 4 feet above the grounds, these fixtures direct the greater part of the light in a wide circle on the ground.

#### THE MILLION DOLLAR SKY-RIDE

The supreme amusement thrill of the Fair is the "Sky-Ride", The lofty towers of this \$1,000,000 attraction are 625 feet high, taller than the Washington Monument or any Chicago building.

They are 2,000 feet apart, one on the mainland south of Soldier Field, and the other on Northerly Island and are topped with observation platforms.

Elevators whisk passengers sixty stories aloft. From this height it is possible to see three states—Indiana, Michigan and Illinois—while below, like a vast animated map, are the colorful Exposition grounds, Lake Michigan and Chicago.

At the 200 foot level the towers are connected by stout steel cables from which 10 rocket-propelled cars, 33 feet long, are suspended, traveling back and forth across the World's Fair lagoons. The span between the towers is greater than the span of many huge suspension bridges in the country. The span of the Brooklyn Bridge is 1,595 feet, the Williamsburg Bridge 1,600 feet and the Manhattan Bridge 1,470 feet.

The Sky-Ride has a maximum capacity of 4,800 persons per hour. The cars are double decked. Each passenger occupies an individual seat affording an excellent opportunity for a bird's eye view of the grounds.

Flood lights attached to the bottom of the elevator cars transform the glass shafts into mounting and receding pillars of colored light.

The towers required 2,000 tons of steel and the 16 cables, 8 for the two sets of aerial tracks and 8 for the stays, required 1,000 tons.

More than \$100,000 was spent in rehabilitating, painting and lighting the Sky Ride for 1934. The entire structure was painted, new track cables and tractor cables were installed, and a minute inspection made of towers and cables.

An entire new system of illumination was installed which will make the towers and the catenary system visible from any point in Chicago.

During the 1933 Exposition, 2,616,389 visitors paid admission to the two towers and the rides, the gross income being \$771,-648.08. The cars making the 1,850-foot trip between the two towers drew 1,499,209 persons, and the two towers 1,117,180.

The towers and cars of the Sky Ride offer the most advantageous point from which to see the Exposition as a whole, and many visitors made them their first objective. The month of August was the busiest of the Exposition year for the Sky Ride, more than 500,000 persons riding in the cars and more than 300,000 visiting the towers. September was second, with nearly 600,000 paid admissions.

# TELESCOPES THAT TALK

Telescopes that talk, and fingers of light transforming Chicago into an animated map are provided by the Sky Ride.

Last year more than a million visitors rode the elevators to the twin towers of the Skyride, and asked millions of questions which were answered by courteous and well-informed guides. This same service is maintained, but supplemented by the talking sighting tubes which will enable visitors to pick out the points of interest they wish to see, and listen to a half minute of pertinent information about them.

To accomplish this purpose, the entire Chicago area within a radius of fifteen miles of the twin towers becomes a gigantic map, and searchlights mounted on principal buildings are directed toward the Skyride. Several hundred miles of telephone cable and a battery of sound apparatus are employed. Coin-operated devices installed on the platforms of both the east and west towers permit visitors to find for themselves those features of Chicago in which they are interested.

By day sighting tubes, mounted on the cabinets which contain the sound reproducers, and which are trained on fixed objects, may be used free of charge. By night a small charge is made, the coin deposited in the box actuating an electrical switch on the buildings or point of interest to be observed, and turns on a searchlight whose beams are directed toward the observer on the Skyride platform. At the same time a phonograph needle is dropped on a record which reproduces a message of information.

These devices are rented to commercial establishments at a price which will cover the cost of manufacture and installation of the "talking telescopes," the sound apparatus and the records necessary for five months' operation, and also the lines to the designated object on the building or structure to be observed. Prices are fixed on a mileage basis, and provide a margin of about 20 per cent above actual cost. Funds obtained by this surcharge are used to provide talking telescopes pointing out important Chicago attractions of a non-commercial nature.

The Star Arcturus. A light ray from the star Arcturus which started on its way to this Fair 40 years ago, at the time that the Columbian Exposition was being opened, turned on all the exhibition lighting on May 27, 1933, the opening day. It had traveled 186,000 miles a second for 40 years to reach here and there are 126,000,000 seconds in 40 years. But Arcturus at that is a next door neighbor compared with galaxies of stars that are so far away that light from them requires a billion years to reach the earth.

The heat rays of the star Arcturus when they reach the earth are about equal to the rays of a single candle five miles away. At the Yerkes observatory of the University of Chicago, at Williams Bay, Wis., this infinitesimal bit of energy from Arcturus was trapped and converted into electricity. This feeble beam of starlight was caught by the giant 40 inch telescope. The telescope concentrated the light from the star at the lower end of the big tube, at a point called the focus.

A delicate instrument, the photo-electric cell was set up at the focus and the light fell on the sensitive potassium surface which converts light into electric current. The light of Arcturus generates a current that is about a millionth of a millionth of the current flowing through an ordinary electric light. The scientists at the observatory built up this tiny current by means of specially constructed amplifying tubes and the output from this amplifier was transmitted over wires to throw the switch controlling the great lights in the Hall of Science.

A new and different Arcturus ceremony takes place nightly this year at the Exposition. Many times last year as the season advanced it was impossible even for the huge university observatory telescopes to pick up Arcturus in the brilliance of the evening skies at the hour when the Fair lights must be turned on.

This year the ceremony is that of lighting the Arcturus Beacon. On a tall formal pedestal appropriately placed in Science Court is a pillar bearing a decorative beacon light consisting of a great torch of gas. The Arcturus ray is captured at the exposition itself by a large, powerful reflecting telescope set on the demonstration stage. The power of the Arcturus ray, amplified, lights the beacon each evening at the hour of twilight. A suitable ceremony accompanys the event.

# AVENUE OF FLAGS

Nothing at the Fair of 1933 captured the imagination of the public more than the Avenue of Flags. There were more post cards sold of this subject than of any other, the Hall of Science and Travel and Transport Dome coming next. The vista down the Avenue toward the Court of Pylons of the Hall of Science with the brilliant billowing red folds of the magnificent flags was one to thrill the senses.

There are 47 flags forming a canopy above the wide promenade of the Avenue, each containing 75 yards of cotton bunting and each costing \$45.00, but it looked like a million dollars.

Millions of visitors to A Century of Progress in 1933 who entered the Exposition grounds through the Twelfth Street gates received their first impression of the Fair through the Avenue of Flags. Framed by fluttering banners and beautifully green foliage was the imposing entrance of the Hall of Science, and flanking the Avenue were the Administration Building, Sears Roebuck Building, and the buildings of Italy, Sweden and Czechoslovakia. The Avenue of Flags is a feature of the 1934 exposition, but its colorings are more brilliant than ever and new lighting effects make it even more of a fairyland at night than it was in 1933.

The Administration Building is just south of the 12th Street plaza entrance. It is 350 by 150 feet and includes three wings stepped down in terraces to the lagoon. The walls of the building are of cement-asbestos board backed by insulation blown into place. In the trustees' room distinguished guests are received. On each side of the entrance pylons are giant figures in aluminum of Science and Industry.

Illinois Host Building. The State of Illinois appropriated

Illinois Host Building. The State of Illinois appropriated \$350,000 for the Exposition. The Illinois Host Building is just south of the Sears Roebuck. It is 200 by 100 feet with a 70-foot tower and contains a huge auditorium and lounge halls for entertaining of guests and foreign visitors. Noteworthy features are the beautiful windows, lovely glass mosaics that portray Illinois history, including the explorations of Pere Marquette and Louis Joliet, the George Rogers Clark expedition, the Fort Dearborn Massacre in 1812, the life of Lincoln, scenes of the Lincoln-Douglas debates, Logan as a volunteer soldier, and scenes of modern Chicago. The mosaics are designed by Thomas A. O'Shaughnessy, Chicago artist. Three rooms in the building are devoted to a comprehensive exhibit of Lincoln relics. The Lincolniana committee of the Illinois commission borrowed the relics from many historical associations and individual owners.

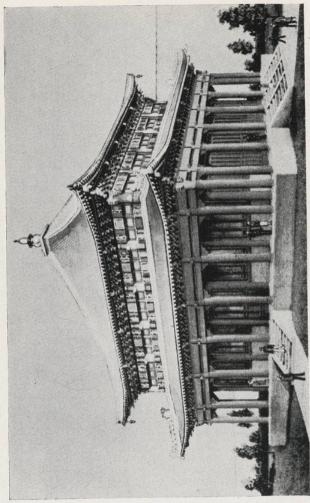
The Swedish Pavilion is to the right of Lief Erickson Drive, directly south of the Illinois Host Building. It is modernistic in design, the base painted black, the main facade in yellow with the word Sweden in mammoth letters of Swedish steel over the center. In an open court surrounded by hedges and attractively landscaped are grouped some fifty pieces of sculpture by Milles, a leading Swedish artist.

The Italian Pavilion is just north of Science Hall. It is built in the shape of a giant airplane and its large main hall contains murals depicting the progress of Italy. It has booths where products of Italian art are displayed.

In one wing of Science Hall are many valuable exhibits bearing on Italian antiquities.

The ground area was increased by a seventy-foot addition on the north side and a seventy-five foot addition on the south side. On these extensions new wings to the Italian Pavilion were built.

Exhibits of Italian manufacturers and industries are shown in the new northern wing of the pavilion. In the new southern wing exhibits of Italian wines and other products of Italian vineyards are displayed.



TEMPLE OF JEH

#### THE LAMA TEMPLE

The Golden Pavilion of Jehol is a reproduction of China's finest Lama temple. Few people outside the Celestial Empire ever glimpsed this shrine in the days of its glory when the Manchu Emperors reigned. The original temple was built in Jehol, summer residence of the Chinese rulers, 165 years ago. The Pavilion was brought from China for Vincent Bendix of Chicago by Dr. Sven Hedin, the famous Swedish explorer.

It is seventy feet square and sixty feet high and rises from a four-foot pedestal of stone. Massive wood columns colored in red lacquer support the lower deck, form part of the wall support and hold the gilded ceiling and upper roof deck in place. Elaborately carved grilles in many brilliant colors enclose the glass window panes. The cornices beneath the roof decks are formed by carved pieces of wood dovetailed together and the cornice beams are gilded and carved with images of dragons, cats, dogs and birds.

In the innermost "holy of holies" of the temple, rare Oriental treasures collected from other Lama shrines by Dr. Hedin and Dr. Montell are on display. Among them are bronze and gilded wood Buddhas, images of other gods and goddesses, altar pieces, incense burners, drums, prayer wheels, trumpets, cymbals, masks used in the sacred dances, priestly robes, silver lamps, temple bells, rare carpets, wall hangings, etc.

Japanese Pavilion is directly south of the Stadium. Here are shown 1,000 Japanese products, silks, teas, etc. The Japanese government is spending \$200,000 on the exhibit and private industry \$650,000,00.

# LaSUISSE PITTORESQUE

On two acres of ground south of the Chinese Village and west of the Hall of Science rise Alpine peaks crowned with synthetic snow and a Swiss village nestling at their base. The village is sponsored by Mr. Geo. M. Potie, who built the Belgian Village, one of the most outstanding successes of 1933. It is a faithful reproduction of the older portions of the city of Berne, capital of Switzerland.

The same construction methods employed in creating the beautiful Belgian Village was used in the Swiss Village. Mr. Potie went to Switzerland to superintend the making of plaster casts of the Chalets and buildings to be reproduced. These were used as models in constructing the new village.



INTERIOR TEMPLE OF JEHOL

Swiss watch makers and lace makers were brought over here to provide color in the new venture. There are outdoor spectacles of native dancing in the village square similar to the Belgian Village feature. Troupes of yodelers were imported to add to the entertainment. Swiss shops and restaurants are featured, manned with native Swiss.

There is also an exhibit of the manufacture of Swiss cheese.

The buildings for the village cost \$250,000.

#### HALL OF SCIENCE

The Hall of Science is the key building of the Fair and its Court of Honor is the principal place of assembly. This great U-shaped building covers 9 acres and is 700 feet long by 400 feet wide. It is approached from the north by a ramp ascending to the second floor where a crescent of 12 pylons rise 59 feet above the terrace.

The open U of the building faces toward the Lagoon and the north arm of the U is extended across the Lagoon by the Science Bridge. The base of the U is the Great Hall of Science and in the southwest corner of the building is the Carillon tower, 176 feet high. The wide terraces offer restful opportunity to listen to the Carillon programs.

From the broad terrace in front of the Great Hall a rostrum like the prow of a ship extends out in the Court of Honor

adorned with bas reliefs.

The interior of the building is lighted softly and sufficiently by concealed light. In the Great Hall 780 feet of neon and mercury tubes in green and blue produce perfect illumination. The east face of the building is patterned with channels containing cylinders of many colored lights clothing the face of the building in ever changing color. The tower is flooded with red and blue light. There are 2,700 feet of gaseous tubes on the tower and 1,280 feet on the pylons of the north facade which glow in brilliant orange.

The building is two stories with a mezzanine and ramps

lead from the court to the terraces of the second floor.

The exhibits in the Hall of Science portray the progress of a century in the basic sciences, physics, chemistry, biology, geology, mathematics, astronomy and medicine. The exhibits are dynamic showing motion and action. Many are dioramas, pictures in three dimensions, with models in the foreground, with motion and frequently with sound reproduction.

There are about 500 basic science exhibits, 90 of these in the

Great Hall.

The Great Hall. A living periodic table of the 92 chemical elements is shown in the Great Hall in their most common sources and uses. A 10-foot revolving globe shows the sources of these elements. There are exhibits also of the elements, and of the ores from which they are obtained.

Beebe's Bathysphere, a great steel globe in which William Beebe, the scientist, descended 2200 feet into the tropic seas to study deep sea marine life was in the Great Hall in 1933. It may return to the Hall in July, 1934, after another descent into the tropic depths.

The Geological Time Clock epitomizes the geological history of the world and its life. The dial of the clock is divided into 100 million year periods and covers 2000 million years. On the face of the clock are projected lantern slides depicting scenes characterizing each geological age, the development of plant and animal life and of man.

Piccard's Gondola is the second used by Prof. Auguste Piccard when he ascended 53,000 feet into the stratosphere Aug. 18, 1932. The gondola weighs 300 pounds and was built of aluminum.

An exhibit showing the working of a stratosphere gondola occupies the center space. Many persons have seen the outside of August Piccard's gondola, but the working of the instruments has been a mystery to most of them. One instrument shows the measuring of cosmic rays. Maj. Chester Fordney, who with Commander T. G. W. Settle made a successful flight last year, assists at the exhibit.

Scientific knowledge acquired since man first discovered the wheel, the axle, and the inclined plane are shown in the new mechanical motion panel, all the exhibits of which are animated.

A new exhibit deals with sea and aerial navigation. Sextants and other devices, the stars, and mathematics, and their place in navigation calculation are shown and explained.

The exhibits in Physics are divided into six groups-Heat,

Sound, Electricity, Magnetism, Radio and Light.

In the Sound group are shown, singing tubes, photoelectric

siren, oscilloscope, and talking light beam.

In the Electricity Group are shown the transformer, the direct current motor, the A. C. motor, vacuum tubes, grid glow tube or thyratron, high frequency oscillations, radio broadcasting and receiving.

Light—Light from an arc and from a neon tube is analyzed into its component spectrum colors. The photo-cell or electric

eye, which has made television possible and promises to be one of the triumphs of the future, is studied.

Cathode, X-rays, Radium and Cosmic Rays—Shows luminous effects due to cathode rays in vacuum tubes, tracks of single alpha rays from radium, the paths of individual cosmic rays, how X-rays and radium make any substance transparent.

The Chemistry Section is arranged in 8 groups—Chemical changes, colloidal chemistry, chemistry of oil, of rubber, of air, electro-chemistry, chemistry of coal-tar, food chemistry and nutrition.

How the chemist has developed the world's raw materials—air, water, coal, cellulose, rubber and oil for man's benefit is shown. Other exhibits tell how the chemist has produced ammonia and nitric acid for the preparation of medicines, explosives, fertilizers, etc.

The exhibit of the American Petroleum Institute tells the story of oil. A miniature refinery operates before the visitors' eyes, and the oil, in the various stages of purification and separation, is visible through the glass pipes and tanks as it moves from step to step.

The electric furnace in which heat of 6500 degrees Fahrenheit is obtained is shown.

The Biology Section has groups devoted to the anatomy and functions of organs, the cell, growth and development of animals, animal behavior, genetics and eugenics, oceaonography, comparative anatomy, botany, bacteria, etc.

The Geology Section deals with the earth, its minerals, geography, volcanism, economic geology, geological surveys, paleontology.

Transparent Man. In the field of medical science, is dramatized the tremendous strides made during the past century in the cause, detection and prevention of human and animal diseases, from primitive medicine to the very latest discoveries of the science. The exhibits show how the science and art of safeguarding human health and relieving pain and suffering have made their greatest advance in the past hundred years. The Mayo Clinic sends to the Exposition its "Transparent Man," a life-size model of the human body, composed of cellon. This model visualizes the human anatomy. The location of the deep organs of the body is electrically illuminated in rotation. The relation of these organs to the specific location on the transparent skin is readily apparent.

By the mere pressing of electrical switch buttons or the turning of levers, one may study the circulation of the blood; the action of the heart valves; the pulse under various conditions; movements of the diaphragm; the peristaltic waves of the stomach and the intestines; the path of a nerve impulse in the knee jerk; the action of the lungs in breathing.

Medical exhibits, which proved to be among the most popular in the Hall of Science in the 1933 Fair, were enlarged 30 per cent for 1934. They cover every phase of medical science, according to Dr. Eben J. Carey, of the World's Fair staff, and dean of the medical school of Marquette university, and include equipment with an immediate commercial value of more than \$1.250,000.

One of the most spectacular of the new displays is that of the teletactor, an instrument which makes the deaf able to tell what a speaker is saying by transmitting sound vibrations to them in a manner that they can understand by feeling. The teletactor is also useful in the teaching of the blind. One of the instruments is set up for visitors to operate themselves.

The University of Chicago enlarged its exhibit on the treatment of the crippled child. The Municipal Tuberculosis sanitarium of the City of Chicago doubled the size of last year's exhibit.

The blood fluke, sinister killer that took 35,000 lives in Puerto Rico alone, came to the Fair along with similar displays from the West Indies, to take its place in the area devoted to tropical diseases, adjoining the exhibit of the Wellcome Tropical Research Laboratories of Khartoum, Africa.

When the United States annexed Puerto Rico the pestilential parasite, the blook fluke, was one of the most formidable problems faced. Economic life of entire communities was seriously threatened by its attacks on health. Its deadly effects were somewhat similar to those of hookworm.

The blood fluke, during an important stage in its development, attaches itself to a species of tropical snail living near fresh water. The parasites move to the bodies of persons bathing in these streams and ponds and penetrate the skin. In fighting the disease, health authorities kill the snails with weak solutions of copper sulphate.

At the booth of the Hanovia Chemical and Manufacturing Company there is displayed the comparatively new, but important, weapon in the age-old war against sickness and disease—the ultraviolet ray.

The Hanovia Booth displays actual tests of various objects and substances by fluorescence analysis by means of the universal Model Ultra-Violet Fluorescence Lamp. There are also shown many types of ultraviolet equipment, from the small delicate ultraviolet meter, which measures and records the intensities of ultraviolet radiation, to the recently designed ultraviolet Milk Irradiating Unit, capable of irradiating thousands of gallons of milk per day.

The onlooker will be amazed at the countless uses of the ultraviolet light to which he will be a witness—in the care of babies for the prevention and cure of Rickets through the use of irradiated milk; in the laboratory for testing paints, lacquers, rubber, paper, textiles, dyestuffs, inks, etc., and for detecting invisible writings, forged documents and fingerprints; in industry for curing patent leather, aging of wines and distilled liquors and irradiating of yeast and other food products; and in the animal kingdom for keeping race horses, dogs and rare zoological specimens in the pink of condition so essential to them.

The collection of human embryos showing the development from 6 weeks on, prepared by Dr. J. M. Essenberg of Loyola Medical school, last year attracted such large crowds, so that persons jammed before it and women fainted from heat and crowding.

This year it is set up with the other medical exhibits on the first floor. An addition to the exhibit consists of cross sections of the adult human body.

Near the south door of the great hall is the Micro-Vivarium. Here are shown one cell living organisms, in a drop of pond water, ditch water or moss scum. The drop is put on a lantern slide and the image seen through the microscope under a powerful light is projected on a screen. The unicellular animals fight, eat each other, reproduce by dividing into two cells, and carry on the general struggle for existence before the eyes of fascinated spectators.

Last year they were enlarged from 150 to 2,000 times their actual size. This year the number of units of projectors were increased, the animals' image was enlarged further, and a horseshoe area three times the size of the exhibit's original space is devoted to the primitive drama.

1300 conventions met in Chicago in 1933. A world record. 1,500,000 were in attendance and they spent \$79,500,000.

Scientific shows are presented daily in the Court of the Hall of Science. Scientific phenomena and unbelievable wonders, that appear impossible on the surface, feature the shows. Exhibitors present them in a fashion understandable and thrilling to the layman. They, take the form of "acts" of approximately twenty-five minutes each.

One of the acts, this one by the World's Fair amateur radio council, involves a whole radio station wheeled onto the stage, with operators who are able to maintain contact with as many as 60 foreign countries. Code messages are translated on a large bulletin board and spoken messages broadcast over the publicaddress system. Another act shows dramatically the manner in which a beam from the star Arcturus was used to turn on the lights of the Fair last year; all the equipment, even the telescopes are in plain view. Other displays are the manufacture and use of liquid air, music by scientific oscillating instruments, and an exhibit of gas welding and cutting under water.

## GENERAL EXHIBITS BUILDING

This is just south of Science Hall with which it is connected by a curved bridge. It consists of five pavilions extending east and west from the north and south axis of the building. Each pavilion has a main hall  $40 \times 160$  feet and 46 feet high. Between the pavilions are landscaped courts with gardens and pools and ramps and stairways leading to the second floor.

Mineral Industries occupy the first pavilion and the United States Steel Corp., have their exhibit in the great hall. They, in effect, take you into a steel plant and show you how blast furnaces convert raw ore into steel for the nation's railroads, automobiles, homes and factories. You will see what appears to be molten metal flow from the furnaces at regular intervals. Specially designed lighting apparatus gives the appearance of full operation of huge banks of open hearth furnaces and Bessemer converters. You'll see how steel is used in modern civilization—in building and other construction, in agriculture, in manufacturing, in transportation and in other fields.

Graphic Arts occupy the next pavilion. The original Gutenberg press on which authorities believe the first movable type was used, is here from Gutenberg museum of Mainz, Germany. It is set up with other original equipment in an exhibit of printing and engraving processes by the Cuneo Press of Chicago. It is the second time the historic press has been allowed to leave

Germany in the 480 years since its development.

# A DIAMOND MINE IN OPERATION

The diamond interests of the world have an exhibit covering 6,000 square feet of floor space in the central court of the Jewelry Pavilion with a complete collection of diamonds valued at \$1,250,000. Here too the visitor may inspect a full scale reproduction of a Kimberly, South Africa, diamond mine, and may do down a shaft to watch the underground operations of the mine. At the top of the shaft is a typical compound, or mine village, with natives living in thatched huts. You enter a mill, and see the workers recovering diamonds from "blue ground" or ore. And walk down a promenade along the streets of old Amsterdam, the world's diamond cutting center, and watch diamond cutters at work. Among other features of this exhibit are a display of replicas of famous stones, including the Kohinoor, the Good Hope, and the Star of India. The elevator which takes visitors down to the diamond mine descends a genuine mine shaft and to real diggings below the level of Lake Michigan.

Paper nails, so strong they can be driven with a sledge-hammer, feature the exhibit of the Paper Foundation. Made of shredded paper, hardened by a hydraulic press, they are valuable in certain type of construction because they are not conductors of electricity and can be hit with a hammer without giving off sparks. They are extremely useful around a powder mill or near any high explosives.

Fromm Bros. Nieman & Company, of Thiensville, Wisconsin, owners of the largest silver fox farm in the country, have an exhibit occuping 1,200 square feet of space on the first floor of the fifth pavilion in the General Exhibits Building. The setting is a replica of the 10,000-acre tract of natural woods in which the growing foxes roam at will each year from September first until pelting time.

There will be a continuous movie showing each stage of the silver fox industry—the pups at birth in the early spring, transporting the six months' old youngsters by motor to the virgin timber in September, and finally, the pelting of the full grown animals, grading of the furs, etc.

A patent exhibit is one of the many new features in the General Exhibits building. The exhibition, presented by Patent Exhibits, Inc., of Illinois, features the history of many everyday devices, shows trade-mark derivation, and patents of a productive, freakish, and odd nature.

Officials of the exhibit have in the main given the majority of space to new patents, some five hundred being shown. Among them is a device for dating an egg the second it is laid, an electrical device to test the ripeness of fruit, a garlic sauce with no after odor, a self-cleaning rake, cooking dishes with windows, and similar commercial devices.

The Hall of Religion is 400 feet long and consists of two rectangular elements joined at an angle. Within the building are displays by religious organizations, an assembly hall where lectures will be given regarding the work of these organizations while on the walls are decorated texts of great religious leaders. Some of the first Bibles ever printed are displayed.

The World a Hundred Million Years Ago. The Sinclair Refining Company's prehistoric exhibit is the first attempt to recreate out of doors a portion of the earth's surface as it existed a hundred million years ago. It shows the huge beasts of that time, as living, moving animals surrounded by the rocks, trees, and shrubs of ancient Mesozoic time.

The seven Sinclair dinosaurs include Brontosaurus, 70 feet long; Stegosaurus, 25 feet; Tyrannosaurus, 25 feet; Triceratops, 20 feet; Duckbill dinosaur, 15 feet; and two protoceratops, 4 feet each. The Duckbill moves about in a small pond. Tyrannosaurus is shown fighting with Triceratops, its ancient enemy. Brontosaurus is looking warily around for his natural enemies before proceeding to feed. The power necessary for these movements is generated by electric motors concealed in the bodies of the animals. Some of the dinosaurs give vent to such cries as they are believed to have made in real life. These sounds are amplified from phonograph records concealed in the body structure. At one end of the plot of ground there is a small "mountain" composed of artificial rock, jagged and sharp cornered before the ice cap rounded it off.

The exhibit is free to the public. Visitors enter under the neck of the Brontosaurus and from there on walk along a path which leads them in turn close to each dinosaur.

The Firestone Singing Color Fountain, one of the Fair's marvels is in the gardens surrounding the Firestone factory and exhibition building at 23rd Street. This gorgeous spectacle is the only one of its kind in the world. It presents in marvelous beauty a perfect harmony of music, ever-changing color combinations and variations in the rise and fall of the beautiful mystic fountain. This scientific engineering achievement is the

result of years of work by some of the world's greatest electrical engineers and scientists. The fountain is situated in front of the ultra-modern Firestone factory and exhibition building in the center of the spacious garden, surrounded by trees, shrubs, and beautiful flowers. The pool is 100 feet long and 15 feet wide, out of which rise the many dome-shaped mystic fountains, the powerful light rays of varying hues penetrating the misty water, the diamond-like spray shooting twenty feet in the air—all in tune with the music. The ever-changing shots of colors, and the varying velocity of the water, are in complete tune while the music fills the air from immense radio speakers hidden within the walls of the building.

Concerts are given daily and will include the highest type of vocal and instrumental music.

The Firestone building contains a complete tire factory, showing every step in the manufacture of tires.

Havoline Thermometer Tower. This 218-foot thermometer, erected for the Indian Refining Company, Lawrenceville, Ill., indicates the temperature "in the shade" by means of a neon light column on each of its three faces. The neon tubes, coupled in sections representing two degrees will light up or darken progressively as temperature changes are communicated to them electrically from a master thermometer. Readings are accurate within one degree and are legible for great distances in every direction.

The base of the themometer tower houses an exhibit devoted to proper lubrication.

The Exposition grounds are enclosed by  $3\frac{1}{2}$  miles of solid sheet metal fence 9 feet high.

The Fair has a 30,0000,000 gallon capacity water plant and has facilities in conduits and sewers, water mains and cables for a city of one million souls.

The area of the Fair covers 424 acres extending nearly 3 miles along the lake front.

There are 600 telephone pay stations at the Fair and about 1.400 stations in all.

The Columbian Exposition in 1893 covered 633 acres and had 400 buildings. It received \$5,000,000 from the city of Chicago, \$5,600,000 from capital stock, \$3,790,000 from the United States, \$10,600,000 from gate receipts and total revenue of \$28,448,000. Construction cost was \$18,500,000, operating cost \$7,500,000. The states spent \$6,000,000 and foreign governments \$5,675,000.

The largest fountain ever built is the greatest single feature of the Fair in 1934.

Through the giant fountain flows 68,000 gallons of water a minute, enough to service a city of 1,000,000 inhabitants, and nearly five times the flow of the largest fountain in the world today. The rumble of the falling water can be heard for half a mile.

Extending two city blocks south into North Lagoon from the Twelfth street bridge, the fountain is something like Chicago's Navy pier in shape. Magnificent lighting effects in five colors—green, red, amber, blue and white—make the spectacle unlike anything else in the world.

Starting from the base of the bridge, the fountain, shaped like a tunnel, reaches 570 feet to a dome of water 200 feet wide and 40 feet high at the end. Three single high sprays about the dome throw water 75 feet into the air.

Floodlights are imbedded under the dome and extend the entire length of the fountain. These are controled by thyratron tubes, allowing smooth, even and beautiful graduations and changes of color. Back of the fountain, on the lower level of the bridge, a bank of 40 gigantic searchlights play about the sky in a medley of color. These are similar in effect to the "Aurora Borealis," at the south end of the Fair grounds. The total lighting load of the fountain is equivalent to that of an average city of 150,000 persons. Operation of the lights, in part by hand in part automatic, is from a control room in the base of the bridge.

# LAGOON THEATRE-RADIO CONTROLS BOAT

This theatre last year which occupied a barge in the North Lagoon opposite the Grand Stand furnished vaudeville and musical programmes to millions of Fair visitors free of charge. In addition to the lighter entertainment which will be provided this year visitors will see daily exhibitions of a motor boat controlled entirely by radio. The show is staged free before 10,000 seats in the aquatic grandstand.

The boat, without a human being aboard, will stop, start, turn, speed up, slow down, and operate in reverse, as the operator, seated before a microphone on the stage of the entertainment pier, speaks commands.

Radio amateurs of the World's Fair amateur radio council constructed the equipment necessary for the exhibition. Their operators conduct the demonstrations once a day all summer,

with the cooperation of H. H. Shuart of the International Motor

Boat and Sportsmen's show, owners of the boat.

There are more entertainers moving about the Fair grounds this year. The Mundy choristers, who sang at the Lagoon theater last summer, will wander about among the crowds, singing minstrel songs and playing musical instruments.

### THE DOODLEBUG

The "Doodlebug" a new and unusual building, houses the exhibit of Hiram Walker & Sons, of Walkerville, Ontario, and Peoria, Ill., and one of the finest restaurants of the Exposition. Employees in the Century of Progress division of design and construction were so impressed with the similarity of the ground plan of the building to the larva of the lion ant that they fell into the habit of referring to it as the "doodlebug." The building extends northwest into the lagoon from the center of the 16th street bridge. It is 350 feet long and 175 feet wide.

The display has a model distillery which enables visitors to trace every operation. Because of the aging necessary to good liquors, it will not be possible to have the tiny plant working, but the operations will be shown graphically and scientifically from the kernel of grain to the packaged product.

Outdoor tables covered by gay umbrellas lend a colorful splash to the restaurant which occupys the first floor. It features tea dances, cocktail parties and floor shows, and will have an orchestra afternoons and evenings.

# ARMOUR BUILDING

The new Armour and company building in the center of the south lagoon extends southward from the 16th street bridge.

Six giant murals, demonstrating a new technique which creates an impression of depth, covers the side walls in each of the three exhibit halls. The artist, David Leavitt, employed five elevations in his design, the elevations to produce shadows under various degrees of strong lighting, thus giving the sense of third dimension. The theme of the murals is the company's progress since Philip Danforth Armour had his business in a small building on Archer Avenue near what was then the edge of the city.

In the first exhibit hall is a diorama map in the center of the floor, with a raised platform around it for spectators. The map and a robot lecturer describe how the company solved its

problem of distribution in the United States.

How the price of meat is reduced by means of efficient use of ly-products is illustrated in the second hall of the Armour

building. Hundreds of articles made from secondary animal products which were once considered waste point a moral drawn by the packing industry in economic history.

The third hall is devoted to informing the housewife of the

kinds and uses of fresh and prepared meats.

# THE SWIFT THEATRE

The Bridge of Shops, 1933, has been converted into the Swift Co. exhibit and theatre. Beside their exhibit building they have erected a band shell and amphitheatre in the lagoon just north of the bridge. This will seat 1,700 patrons who are separated from the music shell by 64 feet of water.

The Chicago Symphony orchestra will appear here twice

daily for ten weeks. The season will begin July 1.

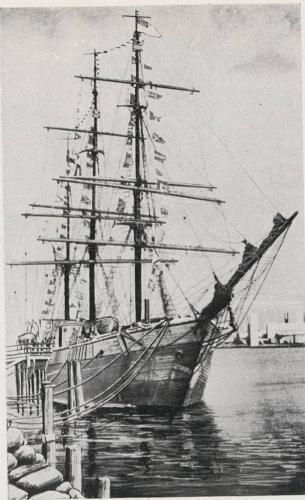
Frederick Stock, conductor of the orchestra, directs the concerts during the first part of the series, leaving later for his annual trip to Europe. Eric DeLamarter, associate conductor, then takes up the directorial duties, sharing the baton with several guest conductors who are to come later.

Elaborate lighting arrangements add beauty to the evening settings, and there are special sound amplifiers to carry the music to all parts of the auditorium. A large concert organ is installed, which is used both in connection with the orchestra and in special recital programs.

Byrd's Polar Ship is moored on the west shore of the North Lagoon. This is the City of New York, formerly the Norwegian 515 ton Sealer, the Samson. She sailed on the expedition in the autumn of 1928. Byrd made a plane flight January 28, 1929 and flew over the South Pole November 28-29, 1929. Four members of the crew are aboard the weather-beaten barque and there is a museum of scientific instruments, concentrated food, heavy woolen and fur lined clothing and a model of Little America.

Daily radio contact with Admiral Richard E. Byrd's expedition to Little America, at the southern tip of the earth, is planned as a feature to interest visitors to the South Pole ship.

The entrance to the ship is much more elaborate this summer. For about 100 feet along the dock is a reproduction of part of the Little America camp, ice mountains, radio towers and all. The rude radio shack and administration building are seen poking their corners out of the snow. A thermometer and weather chart shows visitors at all times just what the conditions are at the South Pole region.



ADMIRAL BYRD'S FLAGSHIP

#### NORTHERLY ISLAND

A complete modern bakery, an exhibit telling the whole story of "Bread, the Staff of Life," and a free sampling room for visitors occupies what was the Dairy Building in the 1933 Fair. The Continental Baking Company took over the building and demonstrate how science has been applied to today's commercial bakery. The Clavilux color organ, principal exhibit of the building last year, is there, but a new show. It has animated cartoons, telling in breezy manner the story of grain-foods. After he watches the cartoon, the visitor is invited into the sampling room for free bread and jelly, cakes, cookies, tea rolls, coffee cakes and other tempters. In a circular passage, leading from one section to another of the building, are dioramas and shadow boxes showing typical scenes illustrating the science of the baking art.

#### AGRICULTURAL BUILDING

The Agricultural Building is very unusual in appearance resembling somewhat the hull of a ship. It is 628 feet long by 108 feet with three wings like the teeth of a key.

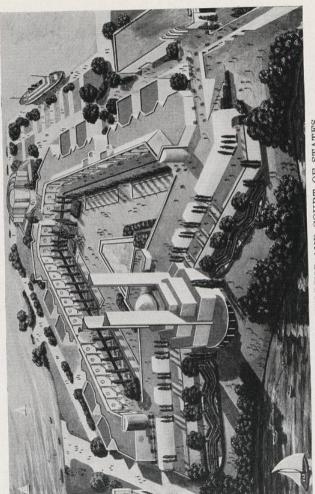
There are exhibits that show the origin and evolution of crops and how they grow, and that explain the food value of various products for people and animals. The development of farm marketing is visualized, as well as the improvement in farm machinery and equipment.

# FEDERAL BUILDING

The United States government is represented by a special building and exhibit costing \$1,000,000. The building is 620 feet long by 300 feet wide, with a rotunda 70 feet in diameter surmounted by a 75-foot dome, around which are grouped three fluted towers 150 feet high typifying the three branches of the government—administrative, legislative and executive. There are exhibited by the Federal government, its executive departments, independent offices and establishments such articles and materials as illustrate the functions of the government in the advancement of industry and the arts, and demonstrating the nature of our institutions.

# HALL OF STATES

The Hall of States, a great horseshoe-shaped building two stories high rises juxtapose to the Federal Building. It is 500 feet across at the base and has two arms 500 feet long and 140 feet wide at widest point. The open part of the horseshoe faces



AL BUILDING AND COURT OF STATES

west and encloses a court, landscaped and containing a sunken garden with a triangular pool. Various states here exhibit their resources and attractions by means of moving and animated exhibits.

Florida Hall, in the Court of States, is transformed into the patio of a Florida estate. Sculptures, murals, dioramas, and glassed in exhibits portray the state's farm and industrial life. A tropical grove was transported to the Fair from Florida and replanted on Northerly Island. There are 700 mature orange trees bearing fruit, besides papayas, mangos and other Florida citrus fruits.

Chief among the changes made for the Florida exhibit is the conversion of last year's outdoor garden into a glass-covered conservatory of twice the size and fully air conditioned. This makes it possible to display many more growing Florida trees, plants and flowers and keep them in perfect condition, regardless of weather conditions.

The Florida sponge boat returns to the Fair lagoon with a full cargo of new sea curiosities for the free marine museum, including a giant octopus and rare sea fans.

Thirteen states, two territories, two civic enterprises and two foreign exhibits are housed in the Hall of States. The lineup of the group, starting from the north end of the concourse, as follows: Federal Department of Labor exhibit, French exhibit, Virgin Islands, Illinois, Arizona, Green exhibit, Washington, Ohio, a concession, Georgia, California, Oregon, Porto Rico, Texas (tentative), Tennessee, Missouri, General States Office, comfort stations, South Dakota, Chicago, South Parks, New Mexico, and Florida.

Five states which exhibited last year dropped out. They are Michigan, Colorado, Wisconsin, Indiana, and Minnesota. The three largest state exhibits are held by Missouri, with 9,000 square feet; California, 8,000 square feet; and Florida, 6,000 square feet. The remainder of the exhibits range from 3,000 to 5,000 square feet in area.

To replace the states that dropped out the following new states contracted for space: New Mexico, Arizona, Oregon, Tennessee, and the Virgin Islands.

The Greek Pavilion exhibits dried fruits, olives, olive oil, honey and Turkish tobacco. The French pavilion shows French wines, perfumes, etc.

#### ISLAND MIDWAY

The Midway was moved this year to the Northerly Island Beach. It contains the Animal Fair, Dutch Village, Ferris Wheels, King Solomon's Temple, Motordrome, Streets of Shanghai, the World Beneath, Trip down the Lost River, and numerous rides, etc.

#### WORLD'S FAIR ZOO

In the center of the new Midway on Northerly Island Beach, and covering 23,000 sq. ft., Frank Buck, explorer of "Bring 'Em Back Alive" fame, conducts a giant zoological garden for T. A. Loveland, the concessionaire.

An entire section of the exhibit is devoted to reproductions of camps erected as working bases in the jungles. Buck's two leading boys, Ali and Ahmed, are with him in the show all summer.

Centering the zoo is an artificial volcano, 65 feet high, with 1,000 monkeys cavorting about its slopes. There is an exhibit of snakes, with the leading actor the 28-foot python that was the villain of "Wild Cargo."

Prowling in winding caverns in the base of the mountain and about it are scores of other animals—lions, tigers, hippos, camels, kangaroos and many more.

Among the strange creatures are a pigmy hippopotamus, from the African jungles; a Tasmanian Devil, a ferocious, almost brainless creature; and an Iguana, popularly called the 'Chinese Dragon," because of its wierd resemblance to the oriental monster; the Iguana has fins on its back, is three to seven feet long and looks more like a pre-historic animal than anything else left on the earth.

There are plenty more for visitors to wonder at—a cheetah, an animal of the African cat family, used by natives to hunt antelopes; strange ant-eaters, the "Schnozzle" Durantes of South American wild life; armadillos, also from South America; jackals, coata mondi from Mexico, fierce ocelots, and gila monsters.

Old Mexico which was last year near the 39th street gate has been moved to the south end of the Beach Midway. It is a typical Mexican cafe and amusement center with dancers and entertainers from Old Mexico. A feature is a reproduction of the Tia Juana bar.

The Netherlands—land of quaint windmills, dykes, canals, tulips and wooden shoes is brought to the shore of Lake Michigan in the Dutch village, which is located on Northerly Island.

Many sightseers will here have their first view of a Holland farm house with its immaculately kept cow-stable opening into family living quarters. Here they will see trim tile-lined mangers for the cattle and appointments that would grace the homes of many Americans.

Out of doors, the eye meets a riot of colors—rich blues, vivid greens and magenta with red tile roofs and shutters of brilliant hue. The delectable Edam cheese, with its red coating, is manufactured, and then marketed by villagers in boats which float through the canals of the picturesque community.

An outdoor square with a dancing space for entertainers and patrons, and the establishment of a table service with typical Dutch foods are among the features.

The Streets of Shanghai is a gay and colorful reproduction of a section of the Chinese port. It cost approximately \$100,000 and covers a full acre of ground in the new Midway section on Northerly Island. Pagoda towers, eight stories high and painted in brilliant hues, mark the entrance to a colony of typical Chinese buildings of bright Mandarin red, jade green, loud Chinese yellow, blue and gold. Inside shops from the Far East, Chinese theaters, and restaurants serving typical Chinese foods.

# SOCIAL SCIENCE BUILDING

Located on Northerly Island across the Science Bridge from Science Hall. Striking Sculptured pylons at north entrance to the Hall are by the noted sculptor, Leo Friedlander. At the left of the group is a youth with two heads, with a goat by his side, holding a small vessel. Flames emanate from the figure, allegorically depicting Indian symbols for the God of Fire. To the right is the God of Light, next to it a female figure representing Night or Darkness, and lastly the God of Storm.

Entering the ground floor of the Hall a central exhibit—the American family—sets the keynote for the stories of education and social work. By means of a group approaching life size, the Colonial family is shown. The women are seen spinning, weaving and making garments, drying fruits and meats, while the children play at the work of their elders. The stage revolves and the American family of 1934 appears, living in a city apartment with radio, refrigerator and canned food.

The section of archeology shows in dioramas the development of human life through different epochs beginning with the cave life of 50,000 years ago.

A series of dioramas and motion pictures show the growth of Chicago. There are exhibits also in education, social work, child welfare, banking, insurance, advertising, etc.

The Communication Building adjoining Social Science Hall, contains the exhibits of the Bell System, the Western Union Telegraph Co. and the International Telephone and Telegraph Corp. In the rear of the building is the Communication Court with four towers at the corners, each 110 ft. high. In the base of each tower is a pavilion of some 700 sq. ft.

In the center of the court is a shallow pool with a tile bottom bearing a design symbolic of the speed and world-wide range of electrical communication, and on the border the names of the three industries. The four towers, which are colored in

green are specially illuminated at night.

"The World in Miniature," a collection made and owned by Mrs. James Ward Thorne, of Chicago, occupies what last year was the Edison Memorial building. The collection consists of a gallery of twenty-four miniature rooms from various countries and periods, the fruit of several expeditions by Mrs. Thorne into France, Italy, and England, principally. Tiny pieces of furniture and ornaments, many of them discovered only after the most painstaking search in out-of-the-way places, form the nuclei around which the rooms were developed. It was necessary to create all manner of diminutive things to complete the furnishings.

One of the best of the rooms, is a Brittany kitchen of many years ago, with every implement, ornament and article of furniture perfect in scale and fidelity of reproduction. There are also seven rooms of American design, arranged in chronological order from a kitchen of Old Salem up to the present day. Several new English rooms and one or two ultramodern rooms are

shown.

ELECTRICAL BUILDING

The Electrical Building is sickle shaped forming a semi circle facing on the Lagoon and enclosing the magic Electrical Court. The two tips of the half circle come down to the water and the northern tip terminates in two gigantic pylons called the Water Gate. They are adorned with bas reliefs and suggest a mediaeval fortress.

Terraces rise from the Court to the facade of the building which carries the suggestion of the stage of an amphitheatre.

The great circular Hall of Electricity on the main floor is equally divided between the General Electric and the Westinghouse Companies.

# GENERAL ELECTRIC COMPANY

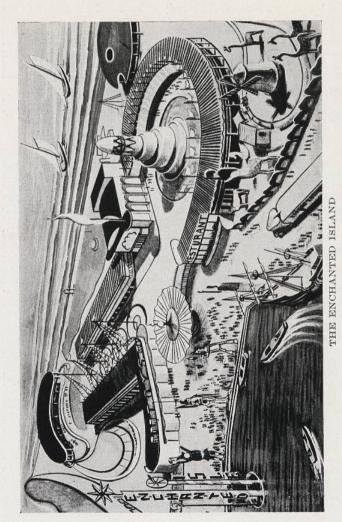
House of Magic. Spectacular discoveries and developments of its famous research laboratory are shown and explained in the "House of Magic," the feature of the General Electric Company's exhibit. The company has concentrated nearly all of its displays in 9,000 square feet of space on the main floor of the great circular hall of the Electrical Building.

In the little auditorium which is completely air conditioned 200 people can be accommodated for each series of lectures and demonstrations, lasting 25 or 30 minutes each, comprising one of an all day series of performances which illustrates the striking advances in the electrical art that have been made during the last few years. The lighting system alone, utilizing a combination of the newest types of equipment, provides an interesting demonstration.

# WESTINGHOUSE ELECTRIC

The Westinghouse display in the southern half of the Great Hall shows how the world has been transformed since 1886, where George Westinghouse first introduced the now universal "alternating current." The display illustrates the latest electrical home devices, ultra modern uses of electricity in industry, latest means for generation and distribution of power, advances in transportation and the miraculous things that scientists are doing in research. Wherever practical, the displays are workable and can be operated by the visitor.

A balcony 12 feet high serves as a canopy for the main display. On its facade appears the single word "Westinghouse" in sheet metal letters, illuminated by colored lights so as to make the letters appear to change constantly.



#### ENCHANTED ISLAND'S 40 NEW FEATURES

The Enchanted Island is greatly enlarged and improved this year. Last year nearly three million adults paid admission to the Island, and perhaps twice as many children were admitted free to the enclosure.

A total of forty-one attractions, about half of which are operated by the Exposition and the balance by individual con-

cessionaires, have been provided.

There are two entrances this year, one at each end of the boardwalk; these are guarded by playful circus animals in sculpture, holding directing signs. A new amusement feature, "A'dventure Land," delights tiny adventurers with dancing stones, rubber trees, a cave of the winds, and a mouse city.

More effective landscaping improves the appearance of the fairyland for children. Trees, shrubs and flowers in great profusion make the scene more joyful than ever; a new tropical garden is the most important addition of this nature. Another is a mystic maze built entirely of shrubs four feet high.

There is a "Fireman's Fountain" where an electrical device represents a burning building, with firemen extinguishing the flames.

Here little boys and girls will find the world of Captain Kidd, the Fairy Queen, the Old Witch and Prince Charming. As children leave the world of realities and cross the threshold of Adventure Land, they will find themselves in an enchanted forest. Fairy-book stars will peep at them through thick foliage overhead; owls will hoot and birds will sing to them; there will be a thunder shower, a noisy, tumbling cataract, a babbling brook and, at the end of the path, a gingerbread house.

The chief delight for the children in Adventure Land will be that anything might happen. A child may be looking at a tree, and suddenly discover that it is winking at him; it may even smile broadly and then break out into a hearty, ringing

laugh.

One of the surprises is a fairy queen who is really alive, yet will appear to be no more than three inches high. Despite her size, she is a jolly person, full of smiles and happy conversation.

The miniature railroad, the ponies, the auto race, boats, the skooter and the famous Magic Mountain are waiting for the visits of old and new friends. The Toy Town Tavern is there to feed and amuse the children.

The Garden and Flower Show lies between the Enchanted Island and Hollywood. Nearly five acres were set aside for this

horticultural concession. An ever-changing series of lovely flowers will be presented during the season, as the later blooming varieties succeed the earlier maturing kinds. Cascades, pools, rock gardens, formal and informal gardens, and interesting water effects make the extensive Horticultural Building and the spacious outdoor gardens a place of never ending charm and fascination.

The Horticultural Building is a J-shaped structure with an area of 100,000 square feet. It has a hall for special season exhibits and halls for special meetings, lectures and receptions. A large terrace overlooking the gardens gives visitors an opportunity to rest and enjoy the scenes spread before them,—statuary, pottery, fountains and the gardens of every description. At night there are usual lighting effects.

Lovers of flowers were assured a treat at the Fair when the finishing touches were applied to the exterior of the Horticultural building. The outside of this structure is now painted

orange and bronze.

The building this summer will be under the direction of the Society of American Florists, which has all of the United States to draw from for exhibition purposes. The first show opens June 9, with roses as the feature attraction. Thereafter a new show will begin each Friday.

With George Asmus, of the Schiller flower shop, Chicago, one of the greatest showmen in the world of flowers, in charge and all of the florists of the country contributing the best of their produce, a continuous flower show, larger and better than last year "from the word go," will result.

The gardens outside the Horticulture building will be improved and maintained again this year, but the main attraction

will be the continuous horticulture show.

A tiny village of colorful gardens, streets and houses built on a scale of one-fourth inch to the foot is on exhibition in the Horticultural Show. Latest ideas in city planning, with the proper distribution of public utilities are brought to the World's Fair from every section of the Nation. The miniature town will provide a wealth of information to prospective home builders and civic planners.

HOLLYWOOD

Screen stars again are making moving pictures before your eyes this summer in "sets" created specially for "Hollywood." Television broadcasting is a new feature. Visitors are able to see how it operates in one of the Hollywood studios. Visitors can again avail themselves of the thrill of taking actual

screen tests, to find out if they have talents that promise a future. Competent directors and producers are on hand to pass judgment on their films. Continuous stage shows are going on in the vast Hollywood auditorium, with the accompaniment of good orchestral music. In addition to the television broadcasts, ordinary radio programs can be seen in the making.

The Belgian Village is at 23rd St. and Lief Erickson Drive and portrays Belgium of the Middle Ages and the Renaissance period. In front of the quaint homes and shops in the cobblestone streets women in peasant costumes are engaged in lace making and men are making wooden shoes and matches. Dogs pull milk carts and pigeons are perched high on pigeon cotes. In the center of the village is a market place where folk dances are held. The buildings are all replicas of architecture four centuries old except that of the fish market of Ghent which dates back to 1650. Included are the gateway of Ostend, built in 1400. A city gate of mediaeval Bruges and a French Gothic church in Antwerp.

Streets of Paris. A portion of old Paris of the Latin Quarter and Montmartre is reproduced on the Midway, just south of the Twenty-third street bridge on the lake front.

It contains a score of enclosed shops, a half-dozen cafes, a large restaurant, two dance pavilions and ten side-shows. The cafes seat about 300 tourist boulevardiers both inside and out and serve French food and beverages. Restaurateurs, waiters, shopkeepers, musicians, entertainers and other attendants appear in picturesque French attire.

The Oasis. On the site of last year's Moroccan Village is the Oasis, a village of the North African desert.

Free entertainment and free shows are the chief factor in

this village's bid for the favor of the visitor.

The management has arranged for the showing of a famed Syrian war dance and the drills of the French foreign legion soldiers from Morocco. And there are sword swallowers, fire eaters and mystics who walk bare-footed on sharp nails and broken glass.

Hawaian Village. This occupies the space where the A & P

carnival entertained millions in 1933.

The shore of the lake adjacent to the village is transformed to resemble a Pacific island landing, and a troop of about sixty islanders will present musical, swimming, and other shows characteristic of life in the distant isles. As one of the feature attractions of this exhibit a Polynesian maiden will "throw

herself into the mouth of a flaming volcano five times daily."

Of course the smoke and flames are a trick, and the burning hot rocks are sponges, but the effect is realistic. The stunt is typical of the sacrifical offerings made in the past to the south sea gods.

#### ITALIAN VILLAGE

This replaces the roller coaster and the whale exhibit north of the Pantheon. It is designed as a walled town such as exists in many parts of Italy, particularly in Tuscany, where many of the hill communities are built around the remains of early fortified castles.

The facade on the old Midway has as an entrance gate a reproduction of the main tower of Signa, about fifteen miles from Florence. To the left of it is a Gothic palace of the 14th century, connected with which is a campanile from San Gimigraphic

ignano.

Inside the village walls are found the ruins of a Roman temple of Venus and also a reproduction of the home of Columbus in Genoa, as well as two old timbered houses in Bologna.

Two leaning towers, also in Bologna, are reproduced—the Asinelli and the Tower of the Garisenda, built at the beginning

of the twelfth century.

Along the lake front stretch is the Piazza Vittorio Emmanuele with an Italian formal garden by the water's edge. The principal building facing the piazza is the Ristorante San Carlo, a typical high class Italian cafe. It is designed somewhat in the form of a theater, with loges and balconies and a stage opening into the restaurant and also out on to the Piazza.

Many of the old village houses contain exhibits of Italian

ware, which are offered for sale.

The antiquity of the buildings are faithfully reproduced and the rich color of Italy, both architecturally and in costume are

shown.

The chief square of the village is the Piazza Benito Mussolini, with the Via Marconi and the Via Cristoforo flanking it. A broad ramp leads up to an antique Roman temple of Apollo, at the back of which is a balustraded piazza overlooking the Cortile Italo Balbo, honoring Italy's greatest aviation leader, who visited the Exposition last summer with a flight of 25 Italian seaplanes.

Pantheon de la Guerre—At 24th Street. This is said to be the largest painting ever made and is a representation in panorama of leaders and heroes of the allied countries participating in the world war. It is executed by a staff of 130 artists. It shows more than 6,000 recognizable world figures and heroes and the battle fronts as they were at the time of the armistice.

LAND OF THE BEDOUINS

South of the Pantheon de la Guarre is the Tunisian Village covering three acres. Here one finds a walled settlement, its narrow winding streets lined with "souks" or native stores displaying jewelry, leatherware, oriental rugs, pottery and many other examples of desert handicraft. Tunisian soldiers and Bedouin tribesmen in their colorful costumes with their families and animals contribute to the illusion that one has actually suddenly stepped into Northern Africa. A large mosque with minaret and dome, where a "mullah" or priest calls the faithful to prayer, is the architectural center of the village. Not far from it, in an Arab theater, free performances by sword throwers, jugglers, mystics, snake charmers and dancers are given to the accompaniment of native musicians.

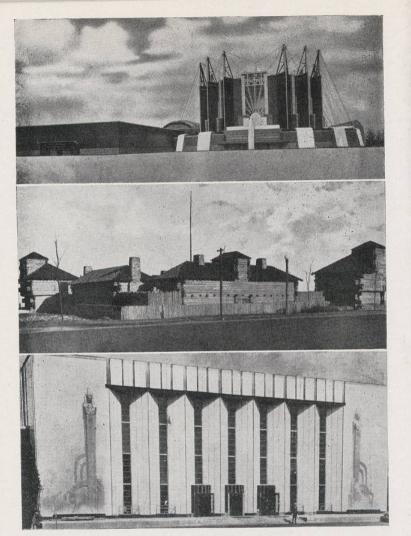
Tunisian olive oil and native coffee are featured in the restaurants of the village, which serve a combination of French

and Tunisian foods.

Mr. Rene J. Zouary, of Tunisian origin, is director of the vilage. He was identified with the Pan American Exposition in Buffalo in 1901. The village stands on the site of the autoscooter and gorilla village of 1933.

SPANISH WALLED VILLAGE

This occupies an area of over three acres on the site of last years Oriental Village and Spanish pavilion. It is an exact duplicate of the Spanish Village which formed an outstanding attraction at the Barcelona Exposition in 1929. The Chicago replica cost more than \$300,000. The builders of the village are Espana Touristica, Inc., a syndicate headed by Nicholas Arias. who was assistant commissioner from Spain to the World's Fair last summer. Historic castles and other buildings from the six most famous provinces of Spain are features of the exhibit. These buildings date from the sixteenth, seventeenth and eighteenth centuries. There are also authentic reproductions of typical Spanish shops and restaurants. Spanish foods are served in these restaurants and the shops offer examples of the arts and crafts of the natives. Native music and dances also are offered as attractions for visitors. A reproduction of the famous monastery at Poblet, Spain, dating back to the eleventh century is an outstanding feature. This monastery houses the famous Virgin of Pilar which has been visited by thousands of pilgrims from all parts of Spain and the world.



TRAVEL AND TRANSPORT OLD FORT DEARBORN ADMINISTRATION BUILDING

#### IRISH VILLAGE

Nestling in the deep green of moss, fern and shrubbery of its native heath and flanked by a setting of blue-flowered fields of flax, peat bogs, fishing smacks, thatched cottages and ancient gray castles, the Irish Village is one of the most romantic spots on the Fair grounds.

The village turns back the pages of time a thousand or more years and shows what Erin was like in days of old. The center of interest is Tara Hall, famous in poetry and song. It is a banquet hall and place of assembly, as was the original structure,

which a thousand years ago stood on Tara hill.

The village is enclosed by a Norman wall. Leaving Tara Hall, the visitor can roam through Kerry and Claddagh, past the leaning tower of Gort in Galway, through the old gateway of Fore in Westmeath, past Longford and by the Shrine of St. Dolough, older than Dublin, and through a score of other reproductions that will take the visitor to nearly every section of the Emerald Isle.

The manners, costumes and customs of that romantic era

are reproduced at the village.

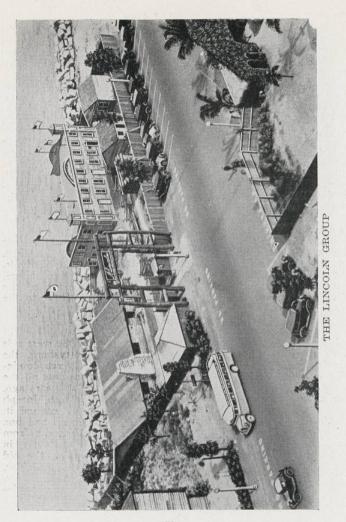
Exhibits of native arts and crafts are displayed. A number of weavers demonstrate the modern manufacture of Irish linen, poplin and lace, as contrasted with the old handloom methods. The Book of Kells, oldest history known to Irish literature, shamrocks, a twelfth century harp and even a piece of the Blarney Stone are among the interesting curios brought to the village from over the sea.

AMERICAN COLONIAL VILLAGE

This wonderful assembly of the most famous shrines of Colonial America occupies two and a half acres of the west side of the Midway on the site of the Battle of Gettysburg, the Whirlplane and Miss America. With Old North Church dominating one vista and Mount Vernon the other, it presents all the quaint charm and historical romance of America 200 years ago. The village cost aproximately \$225,000, according to Joseph Buettas, of the B-W Construction company, which erected it.

Flanked along "Main Street," with its elms, yews and box hedges and geraniums in window-boxes, are such spots from the pages of history-books as the house of Paul Revere in Boston, the governor's palace at Williamsburg, Va., the old Boston State House, and Hawthorne's House of Seven Gables, at Salem, all reproduced to scale, faithfully and authentically.

The village smithy of Longfellow's poem, a Pilgrim settlement with split-log houses such as John Alden and his Priscilla



might have occupied, Benjamin Franklin's printing shop, Betsy Ross' shop and George Washington's birthplace are reproduced. There are a pirates' gaol, a witch's house, a haunted house, stocks and a ducking stool.

Fort Dearborn which stood on the site of the London Guarantee building on Wacker Drive is reproduced just as it looked a hundred years ago when Chicago was merely a fur trading post of about 200 people. The palisades of logs set on end with two block houses at the corners with the second floor overhanging enclose a square and parade ground with barracks, officers quarters and powder magazine.

The flag that flies from the pole in the parade ground bears the stripes and fifteen stars of the year 1812. The guards are dressed in the red and blue uniforms of that era. An ancient well and oaken bucket, a grist mill and ox-yoke within the enclosure tells the story of pioneer days.

The Lincoln Group stands immediately south of Fort Dearborn. Within the hand-hewn enclosure, criss-crossed by rail fences such as the Great Emancipator himself might have cut, visitors may see the replicas of the cabin, in Hodgenville, Ky., where Lincoln was born 123 years ago; the rude home the Lincoln family occupied in Indiana; the Lincoln-Berry store in New Salem, Ill., where Abe sold calico and molasses, learned of Burns and Shakespeare and studied Blackstone; the Rutledge Tavern where he met and courted Ann Rutledge; the Wigwam, historic Chicago convention hall in which Lincoln was nominated for the presidency in 1860, a part of which has been set aside to reproduce the room in Lincoln's Springfield home where he received the news of his nomination for the presidency.

## ENGLISH VILLAGE

This covers two and a half acres of ground on the west side of the Midway, on the site of last year's Life, Funnies, Midway Cafe and the Two-Headed Baby. O. J. F. Keatinge is head of the venture. He was general advisor for the 1933 Exposition and formerly a director of the famous Wembley Exposition in England. The English Village reproduces accurate models of famous historic buildings which played a large part in making the history of England in the fifteen hundreds. Plaster casts were made in England and shipped here as forms for the reproductions of the buildings.

There is the famous Cheshire Cheese Inn, favorite hangout

of Dr. Samuel Johnson. The Inn features the identical chairs used by Dr. Johnson and his cronies, as well as the tables they ate and drank from.

The entrance way is through a replica of Tower of London, with the scroll work of the "beef-eaters" and halberds. Other features are Sulgrave Manor, home of the parents of George Washigton before they emigrated to the Americas; the cottage of Ann Hathaway, sweetheart of Shakespeare, at Stratford-on-Avon; a replica of Hadden Hall and Stoke Poges Church where Gray wrote his "Elegy in a Country Churchyard."

#### BLACK FOREST VILLAGE

On the site of last year's Havana Rhumba and the Seminole Indian village is a bit of the Schwartzwald, the Black Forest of Germany. Here on the hottest days it will be cool with ice skating, synthetic snow and ice. It was erected by R. J. Sipchen & Co., who built Fort Dearborn and cost about \$125,000. It is a faithful reproduction of a German Vilage in winter. There is synthetic snow on the roofs of the buildings, big icicles hanging from the eaves, snow-covered hills in the background. and a frozen mill pond in the center where ice skating will be featured all summer long.

In addition, air conditioning plays an important part in carrying out the illusion of zero weather, by maintaining the buildings at low temperatures. This concession is directly across from Fort Dearborn, and covers more than an acre of ground. It is not simply a replica of a Village of the Black Forest region -it is instead, the actual village with its life, its homes and its business activities.

Surrounding the frozen mill pond are houses in which are shown examples of German home industry, peasants making cuckoo clocks; wood carvers making canes; a blacksmith shop where hand-forged souvenirs are made. The home manufacture of Kirch is shown, and there is a German bakery.

There are several typically Teutonic eating places and a huge restaurant with German orchestras and strolling players entertaining both inside and outside the eating places.

Home and Industrial Arts Exhibit has as its main feature Home Planning Hall. This is at 28th Street and is an I-shaped structure with two main halls, Home Planning and Interior Decoration, connected by a series of galleries devoted to arts and crafts. The north wing containing Home Planning Hall is about 550 ft. long and houses exhibits of air conditioning, household appliances, etc. The fore court of the building is called the Court of Honor of Building Material and has a marble mosaic curtain wall and a series of reflecting pools.

In the South wing is the exhibit of the five billion dollar gas industry under the direction of the American Gas Association. Gas is next to water the oldest public utility dating from 1609.

A group of houses demonstrate the use of a variety of structural materials.

General Houses, Inc., introduce mass production of homes whereby a family can select a house in a showroom, have it erected within four days and trade in for a later model if they wish after a few days.

The Southern Cypress Manufacturers Assn., have a mountain lodge type of cabin.

The Masonite bungalow is a brown and white structure of 5 rooms of modernistic design.

John C. B. Moore, a New York architect, shows the most house for the least money.

The Stransteel is a fabricated home of steel and can be duplicated for \$7000.00.

The Common Brick Manufacturers Association show 2 three story brick home that has reinforced brick floors.

The Owens-Illinois Glass Company of Toledo, Ohio, show

a shimmering structure made of glass blocks.

The Florida House is constructed of Florida building materials, such as travertine, floridene, brain-coral, coquina and portland cement made from Florida rock. It's roof demonstrates the joys of living on the roof. It is a flat roof like a ship's deck with awnings, steamer chairs, and tropical plants.

The House of To-morrow is a circular house with glass

walls.

Each house had from 1,000,000 to 2,000,000 sightseers in 1933.

Two new houses in the group are two-story steel house by General House, Inc., and a five-room bungalow by the Stran-

Steel corporation.

General Houses, Inc., developers of prefabricated steel panel dwellings, have a number of novel displays besides the house itself. A group of full-size model sections demonstrate the chief essentials of steel house construction and show the progress that has been made in the utilization of the metal for home building. This exhibit of model sections will be given to the Museum of Science and Industry at the close of the Fair.

The Crane Co. erected a new 285-foot exhibit. In the middle of the Crane building an illuminated tower rises 60 feet as background for a giant 45-foot shower.

Two houses are the farm houses built as a part of the farm show south of the Home Planning area.

One home is a model farm house of 1950, with working quarters on the first floor and living quarters on the second. The first floor includes the kitchen and a shower room, milk room, tool and storage room.

The second house, called the "subsistence farm house," is a structure of four or five rooms built at a cost not to exceed \$3,000. Thi house is designed to meet the needs of the present day effort to get people on farm plots in which all or a great part of the family living can come from the soil.

#### FORD EXHIBIT

The Ford exposition covers eleven acres, standing where Camp John Whistler, United States army post, and the American Indian vilage were in 1933. The building, designed by Albert Kahn of Detroit, who also created the General Motors building, stretches out more than 1,100 feet along Leif Eriksen drive.

"Restrained modernism" is the style of architecture the Ford building represents. Its central unit is a circular structure with set-back terraces 110 feet high and 210 feet in diameter. This houses the Ford "Drama of Transportation," which portrays the evolution of passenger vehicles from early Egypt to today, and includes every model of the Ford car ever built.

In the "Drama of Transportation" is shown everything from the drags employed before the discovery of the wheel, the earliest types of wheeled vehicles, ox cart, chariots, primitive wagons, an automobile built in 1863, down to the cars of the present.

An open court, 90 feet in diameter, in the center part of the main structure, contains an electrical driven globe, an exhibit known as the "Ford World." To the south, in a smaller building the Ford company brings some of the most important historical exhibits from the Edison institute. The exhibit of the original Ford made by Henry Ford's own hands is located there.

In a long building lying to the north of the central structure, is an exhibit, mostly in motion pictures, of the contribution of the various industries to the automobile industry. This building is 550 feet long and 152 feet wide. Flanking it are displays showing the part the mines, factories and farms are contributing to today's automobile.

The Ford exposition was estimated to cost \$2,000,000. The building is larger than the Travel and Transport building.

All of the land lying along the lake shore and opposite the Ford building across the drive is elaborately landscaped and named "Ford Park." It presents a series of quaint, old-fashioned gardens, the kind that have long been a hobby of Henry Ford. There are band stands, where concerts are presented every day, and 10,000 seats are provided in the park. In the park is an exhibit known as "Roads of the Ages" where every kind of road from early Roman pavements to the 1934 concrete superhighway is shown.

The Detroit Symphony orchestra will appear at A Century of Progress Exposition this summer, giving two free concerts daily in Ford park. Seats for several thousand listeners are provided in an open air theater across the drive from the Ford Exposition building. The Detroit orchestra is composed of seventy musicians, with Victor Kolar, associate director, as its conductor. The concerts commence June 7 and will continue until Sept. 7. Officials indicated that, if the concerts are greeted with the expected interest of 'Fair visitors, the engagement will be extended to include the remainder of the Fair period.

#### THE MAYAN TEMPLE

The temple is a reproduction of one of the buildings of the Monjas, or Nunnery at Uxmal, Yucatan—a striking example of the architecture of the Mayas, among whom aboriginal civilization reached the highest point on the North American continent. It is located at the 31st Street entrance.

Although Maya civilization has produced architecture of rare beauty and sophistication of ornament and though its origin may go back as far as that of Egypt, comparatively little about it is known. Recent research has disclosed that this ancient people had calendars more accurate than those used in contemporary Europe 2,000 years ago, played a native form of "basket ball," and employed the principle of false perspective.

The Monjas is thought to have been the nunnery of the vestal virgins, who attended the sacred fires in the temples of their gods and who were put to death if they broke their vow of chastity.

The barbaric facing of the temple is decorated with relief carvings of the intertwining bodies of the feathered serpent god Kukulcan. Fantastic, grotesque masks done in the brilliant colors that characterize Mayan architecture, adorn the walls.

The ruins of Uxmal which are near Merida, the present capital of Yucatan, cover several square miles. The Nunnery is a quadrangle enclosing a court entered from the south through a corbelled arch, the Mayas not having discovered the secret of the true arch. They stand next to the ruins of the Pyramid of the Magicians. The vast pile of masonry of temples and palaces were built with no metal tools or wheels or beasts of burden, by laborers who lived in adobe huts. Uxmal was captured by the Spaniards in 1542.

#### GENERAL MOTORS BUILDING

The General Motor Building is the tallest in the Exposition, its massive, 177-foot tower being surpassed only by the piers of the Sky-Ride. The structure also is the largest erected by a private exhibitor.

Albert Kahn of Detroit, who built the golden-towered Fisher Building, was the architect and the structure strikes a new note in the adaptation of ultra modern ideas of form and decoration to the requirements of industrial construction. It is in the shape of a rectangle with front corners broad rounded. It is 545 feet long by 306 feet deep. Into the "made land" of the Exposition grounds were driven 100 pilings to provide a safe foundation for the mass of steel, concrete, glass and armor ply. The outer walls are almost completely glass. The semi-circular front consists of the fantastically pyloned entrance and eight plate glass bays, each 48 feet long.

The interior is divided into seven main rooms upon varying levels, dictated by the terrain which slopes down to the lake, including the large Entrance Salon where paintings, sculpture and other works of artists of international note are housed; the Chevrolet assembly plant, two enormous automobile show rooms, the accessory display room, the truck display room and a little theatre.

Hundreds of exhibits portray General Motors' twenty-five years of contribution to progress in industry, science and art. Products of the numerous automotive, household appliance, farm and other machinery manufacturing units among the seventy-five companies that make up General Motors are represented.

The General Motors building at the Fair cost \$2,000,000 in 1933. To this investment the company added another \$1,000,000 in 1934, to bring the exhibits up to date and to install additional features.

#### CHRYSLER MOTORS BUILDING

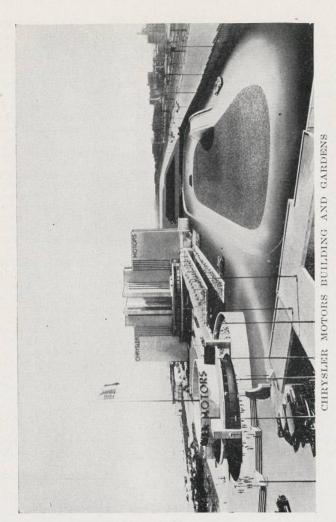
The entire Chrysler Motors' exhibit covers approximately seven acres of ground, at 31st Street and Leif Erickson Drive and consists of a "Revolving Cyclorama" depicting an airplane trip from coast to coast; a 360-foot long promenade leading to the main building; the building itself housing an exhibit of more than 25,000 different and distinct automotive articles; a quartermile hard surface oval track and a beautiful sunken garden with a reflecting pool 325 feet in length.

Four huge 125-feet pylons are crowned with golden yellow gaseous signs, the only ones of their kind in use at the fair, reading "Chrysler Motors," in letters 8 feet high. The pylons form a Greek cross. The east and west pylons have diagonal continuous flutes, the entire width of the pylon, and at night are illuminated by more than 1,000,000 candlepower of high intensity lights. The white circular portion of the pylons have built-up flutes with similar illumination at night. The flutes add to the already impressive height and magnitude of the building.

The complete exhibition, most modern and startling in the field of automotive design, engineering, production and performance, is housed in eight spacious niches throughout 68,000 square feet of space in the building, four on each floor.

The quarter-mile track provides the medium for actually seeing and taking part in many of the grueling track tests to which Chrysler Motors' products are subjected. It will be the headquarters for some of the world's most famous racing drivers who will serve as demonstrators to thousands of visitors to the fair.

The eastern side of the exhibit has been made into a beautiful sunken garden. Benches, rocking chairs and a wealth of room in which to gather and rest has been provided in this garden, the center of which is the Chrysler reflecting pool.



LION AND TIGER ACT

The Standard Oil Company of Indiana is staging a thrilling jungle act on the site of last years air show near the Travel and Transport building.

In a spacious amphitheater with 2,500 comfortable seats, Allen King dare devil animal trainer, will put 33 lions and tigers through their paces four or five times every day. In a supporting act Miss Estrella Nelson will show a troupe of elephants performing stunts. Between shows the animals will be in the receiving line to allow visitors to become acquainted with them in their cages. The show is free to all visitors.

Trainer King, who once tutored the famed Clyde Beatty, was rehearsing his act in the winter quarters of the big circuses at Peru, Ind. While lions or tigers alone are relatively easy for a trainer to handle, working both in the same cage is about as safe as walking a path of banana peels on the edge of the Grand Canyon, showmen say. Despite this, the revolver at King's hip is loaded only with blank catridges, and he admonishes the beasts for the greater part only with a chair and a whip. His helpers outside the cage have only prodding poles and blanks, but carry bottles of ammonia to break up fights between the animals.

Although King is only thirty-five years old it has been nearly twenty years since he first appeared in an animal cage.

In 1925 eight lions jumped on him at once. He was knocked to his knees, but the lions fell to fighting among themselves, and during the melee he escaped through a safety door. His hands and legs were badly clawed but again he worked the next night.

The reason Standard Oil Company is presenting the animal act is because its advertising this summer will draw a parallel between the "live power" qualities in animals and in the molecules of motor fuel.

## TRAVEL AND TRANSPORT GROUP

The Travel and Transport buildings consist of a giant dome 300 feet in diameter and 120 feet high at the center and a barrel shaped structure 220 x 100 feet and 80 feet high. The great dome is of unique construction with a roof that breathes. The roof is suspended 125 feet above the ground from cables attached to 12 steel towers on the principle of the suspension bridge. The roof expands and relaxes with the temperature 6 feet in circumferance and rises and falls 18 inches.

Inside the Travel and Transport Building, the Baltimore and Ohio have the old "Atlantic" engine on a turn-table constantly in motion. The animated diorama dramatizing the corner stone laying of the B. & O., with the figures of the principals in this ceremony in motion, accompanied by sound effects is given a more impressive setting.

The Pennsylvania System contributed a replica of the famous "first engine," the John Stevens. This was built in 1825 by John Stevens, of Hoboken, N. J., and was operated on a circular track. Momentum was accomplished by use of a cogwheel which meshed with a cogged center-rail. The wheels were not flanged but were held on the rails with strange gadgets.

The Chicago, Milwaukee, St. Paul & Pacific moved a part of its exhibit this year to the Great Dome of the T. and T. building. Here it displays one of its giant 521,200-pound mountain division 12 motored electric locomotives and a stream-lined air-conditioned coach; also a huge animated relief map showing mountains, streams, tunnels, bridges, etc. of the country from Harlowville, Montana west to the Puget Sound country.

The Illinois Central have a large map, with lights and motion, in relief, showing rail and steamship connections on a giant globe. It also shows motion travel pictures.

The Rock Island Lines have a theatre seating eighty people and give scenic motion pictures with sound. A trip over the company's lines, through canyons and tunnels, is stimulated.

The Burlington System offer a giant animated relief map with flowing rivers, waterfalls, geysers, etc.

The Missouri, Kansas & Texas will have an exhibit showing the life and activities along the lines of the "Katy" system.

A passenger plane that flies three miles a minute is the chief airplane exhibit in the Travel and Transport building. It is a multi-motored, all-metal, high-speed Boeing of the type flown by United Air Lines, the kind of a plane that flies from New York to California within a day and from Chicago to the Pacific coast over night. It can claim to be first with many new features, such as its high speed, use in large scale operations of supercharged engines of the type previously used in military planes, and manufacture on a production basis with complete interchangeability of parts.

On the tracks south of the T. & T. dome are two trains that are two of the greatest attractions of the Fair. One is the great six-car stream-lined 110-miles-an-hour diesel driven train of the Union Pacific railroad. A similar train, consisting of three cars, was completed earlier in the year and is now in service in the west on the Union Pacific System.

What the development of such a train means to the world of transportation can be illustrated by the following contrasting

facts:

A standard, conventional steam train of six cars weighs about 600 tons; the new six-car unit, 85 tons. A standard steam locomotive, high speed passenger type, weighs 312 tons; the new type power unit, 20 tons.

To operate a 10-car train, standard weight and construction, at 90 miles an hour, would require a 4,500 horsepower unit, which does not exist. Under the new streamline construction, with lighter cars, a 500 horsepower unit will do the job.

The average modern locomotive has to be refueled every 100 miles; the new train, every 1,200 miles! The new train, too, operates on roller bearings throughout. Weight reduction is accomplished by the use of aluminum alloys.

The train is air-conditionel throughout; temperature controlled by thermostat. Interior color scheme is blue and aluminum. All lighting is indirect. The cost of the six-car train is about \$200,000.

Nearby is another new streamlined train, the famous Zephyr, property of the Burlington System. It, too, is diesel-motored and has flashing speed.

The Zephyr, a three-car unit, is built of a new metal, stainless steel, shines almost like a mirror, and weighs only 80 tons, no more than a single standard sleeping car. To emphasize the strides that have been made in railroad development the Burlington also show for contrast early models of a steam locomotive and an express car.

Three other stream-lined rail car jobs, single coaches, diesel and gas motored, are also shown in this group.

Pageant of Transportation. Across the Lief Erickson Drive from the Travel Dome is the triple stage where the pageant "Wings of a Century" is produced. Helen Tieken is the director and a cast of a hundred take part of whom 20 are children. It is presented several times daily in the open air theatre.

Edward Hungerford, who created "The Fair of the Iron Horse" for the Baltimore & Ohio railroad six years ago, is the author of "Wings of a Century," and Hamilton Forrest, composer of the opera "Camille," in which Mary Garden starred, arranged the pageant's music.

Of the three sections which compose the stage, the center or main stage is the largest; it has a proscenium opening of 135 feet and a depth of fifty feet. Between the main stage and the audience, which occupy a stand with 3,000 seats, is the forestage, on which much of the dramatic action takes place. It is, in effect, a paved highway into which railroad tracks have been sunk for the locomotives and trains. Engines, cars, wagons, stage-coaches, ancient automobiles, boats—on the lake—airplanes and all other vehicles and craft for transport are actors in this big show.

Six major epochs in American transportation are enacted. Twelve historical locomotives take part. The oldest is the famous Tom Thumb, built in 1829, of which a working replica is shown. The British John Bull built by George Stephenson in 1831 for the Camden and Amboy Railway is shown. The DeWitt Clinton was loaned by the New York Central with its three cars which were really stage coaches running on rails. This also dates from 1831.

The Railway Express, Inc., loaned the Louis McLane, one of the original stage coaches between Salt Lake City and Sacramento in 1855-6.

Model Dairy. Vitamin D milk production, from the cow to the bottle, is seen at an ultra-modern dairy farm sponsored by the Brook Hill farm, of Genesee Depot, Wis., near the south end of the Fair Grounds, adjacent to the poultry show.

"Blue-blood" Guernsey and Holstein cows are stabled in the \$75,000 Exposition building, and kept contented by a diet of irradiated yeast, daily beauty baths and every modern device for comfort, safety and hospital-like cleanliness. The yeast diet is one discovered by Prof. Harry Steenbock, of the University of Wisconsin.

The milk is taken hourly by milking machines, cooled, bottled, sealed, capped and delivered to a bar where it may be sampled by the visitor.

The dairy building, which is 200 feet long, 45 feet wide and topped with a 50-foot illuminated tower, contains in addition to the stables, a milking parlor and bottling plant, restaurant, information booth and rest room.

# ART INSTITUTE'S OFFICIAL ART EXHIBIT

During the period of the Fair in 1933 over 1,600,000 people visited the Art Institute where the Century of Progress Art Exhibition was held. On Oct. 31st, 44,432 entered its doors, establishing a record for art exhibitions. Previous to the 1933 Fair the largest attendance at an Art Exhibit had been 18,231 on one day at the Art Exhibit of the Philadelphia Sesquicentennial.

For this year more than 1,000 pieces, probably 50 of them from European museums, make the official art exhibition of A Century of Progress the most complete array of paintings, prints and sculpture ever assembled for any exposition.

The exhibition will emphasize American art from the Colonial period to the present. The forty-two galleries will be arranged in chronological sequence. Displays of contemporary work will be classified as to tendencies, such as realism, the American scene and international style.

With 1934 the 100th anniversary of the birth of James McNeill Whistler, an entire room is devoted to his paintings; there is also a special room for Winslow Homer. The print department has one gallery of old masters, one of Whistler and one of contemporaries.

George Bellows, a former baseball player, became, before his death at 42 an important painter of American scenes. His vital, boisterous nature encompassed all phases of American life in his work. He is represented in the exhibit by his "Crucifixion" and "Execution of Edith Cayell."

General tour of the exhibition is offered each week day morning at 9:30, and Sundays at 1:00 P. M., conducted by Miss Helen Barsaloux, and a Lecture on a selected part of the exhibition each week day morning at 11:00, given by Miss Helen Parker. Private guide service is available at any time by appointment.

The largest total attendance at an Exposition was the Universal Exposition in Paris 1900—48,000,000. Next was the French Colonial of 1931 which was 38,000,000.

The largest single day at an Exposition was Chicago Day in 1893 with 762,000. The next largest was in Paris in 1900 with 602,000.

Walter D'Arcy Ryan, engineer who designed the spectacular outdoor lighting displays of A Century of Progress Exposition in Chicago, died Wednesday morning, March 14, in Schenectady, N. Y. He was 63. Death was caused by heart disease. He had been employed by the General Electric company for 35 years. His most notable work up to the time of his accomplishments as chief of the outdoor lighting division of the 1933 World's Fair, was the lighting job on the Panama-Pacific Exposition of San Francisco in 1915.

Mrs. Ruby Phelps of Chicago, visited the exposition in 1933 147 times.

H. W. Schmitt, landscape expert who developed the gardens and outdoor beauty spots last year on the World's Fair site, is again on the job. This year, however, he worked directly with Mr. Vogelgesang in the coordination of flower-beds, hedges and other features with the coloring of the buildings and the lighting.

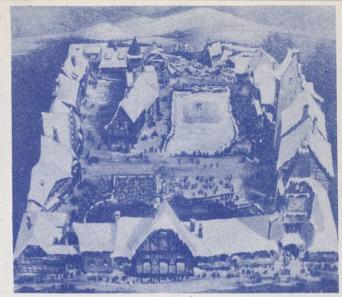
The Louisiana Purchase Exposition in St. Louis received \$5,000,000 from the city and \$6,579,000 from the United States. The Panama-Pacific Exposition of 1915 received \$5,000,000 from the city and \$5,456,000 from the state.

The insurance on the Exposition was underwritten by 127 insurance companies.

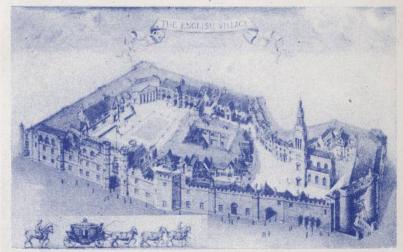
The Exposition has at its very gateway more than \$20,-000,000 worth of permanent buildings—the Field Museum of Natural History, the Shedd Aquarium, the Adler Planetarium and the majestic stadium of Soldier Field, the latter two of which are part of the Fair. Only a few blocks north is the Art Institute.

The architecture of the Columbian Exposition was that of the Greeks, with Corinthian columns, elaborate cornices, sculptures and friezes and wealth of exterior ornament. The modern architecture of this exposition is one of broad surfaces, planes and mass arranged in unusual compositions and depending for embellishment upon vivid color treatment of towers, pylons, domes and surfaces. The color harmony was directed by the Joseph Urban organization, the country's leading authority on color decoration. They passed upon the color scheme for all the buildings of private exhibitors and concessionaires as well as those of the Exposition itself.

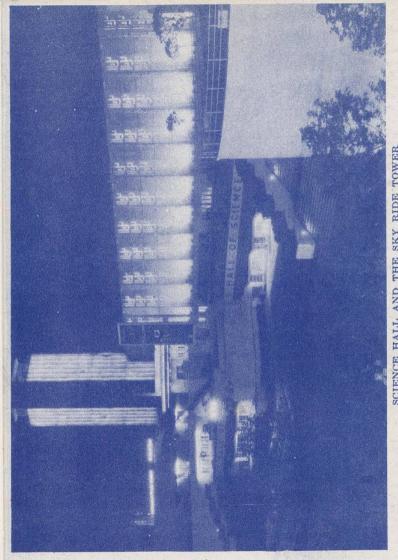
The 22,500,000 visitors to A Century of Progress last year, spent \$26,325,000 in round numbers for every attraction or utility within the fair grounds.



THE GERMAN BLACK FOREST VILLAGE



THE ENGLISH VILLAGE AND THE TOWER OF LONDON



SCIENCE HALL AND THE SKY RIDE TOWER