sional artists—the Ritter, Rose and Singer troupes. There are 1,500 free seats for the outdoor show.

*Midget restaurant serves full size meals. Indoor and outdoor tables, table d’hote and a la carte service. Lunch counter. Children’s sandwich shop.

OLD ENGLAND

†ENGLISH VILLAGE. Here you see reproductions of buildings and quaint spots of old England brought together to make a village that is redolent of history.

Shakespeare’s Globe Theatre, in which his masterpieces first appeared, is seen with his house at Stratford-on-Avon and the cottage there in which lived his wife, Ann Hathaway. The Harvard home, original dwelling of the family of John Harvard, founder of Harvard University, also at Stratford-on-Avon, is in the group.

From Scotland, to blend with the picture of that great age of England, comes Robert Burns’s cottage and the home of John Knox. The Old Curiosity Shop, from Charles Dickens’s novel, shows a bit of London of the early 19th Century.

The Cheshire Cheese Inn, resort of Dr. Samuel Johnson, Oliver Goldsmith, James Boswell and their immortal literary coterie, is here in a reproduction that includes Dr. Johnson’s chair and favorite table.

Long and careful studies were made in England and Scotland of the original buildings. Plaster casts of exteriors are used for exact reproductions of their appearance. The furnishings and equipment include authentic pieces and antiquities of great rarity and value.
You see in Shakespeare's and Burns's cottages exactly how they lived. Entrance to the Old English Village is through gateways reproduced from those of the Tower of London.


**IRISH VILLAGE**

†IRISH VILLAGE. Tara's Hall, meeting place of ancient Irish kings, potentates and bards, is one of the features of the Irish Village to which fourteen counties of Ireland have contributed their stories. A West Coast lighthouse is reproduced in a glass tower, sixty feet tall, illuminated to the top. Its glowing light will be seen for miles over the lake. The thirty buildings in the village range from the simplest thatched cottages to the Hall with its carved roof-beam decorated with dragon heads at the ends.

Among the historical exhibits is the Book of Kells, oldest history known to Irish literature. It is an illuminated copy of gospels, in Latin, and contains also Irish records, dating back to the eighth century. A twelfth century Irish harp is another ancient exhibit.

Modern Irish industry is shown by weavers demonstrating the making of Irish linen, poplin and laces in contrast with the old handloom methods. Jaunting cars and shamrocks are seen around the village green, where dances and folk songs are given by native Irish entertainers to the music of the bagpipe and the harp brought from Ireland.

*Restaurant in Tara's Hall. Indoor and outdoor tables, table
Tara's Hall

d'hôte and a la carte service. Orchestra and floor show by imported Irish artists afternoon and evening. Dancing by guests.
*Two “pubs,” one in the lighthouse. Lunch counters.

FORT DEARBORN

†OLD FORT DEARBORN. A reproduction of the fort and stockade that was Chicago's first permanent settlement.

The parade ground flag bears the fifteen stars and stripes of 1812. Guides are in the uniforms of 1812. Around you are the fort's well and oaken bucket, outdoor fireplace and soap kettle, the grist mill, powder magazine, barracks, Indian trading post and block houses. Plans made by Captain John Whistler for the original fort were obtained from the U. S. War Department and followed exactly in the reconstruction.

In the living rooms of the fort are seen the furnishings and equipment as they were originally. Here are hand-made chairs, hand-hewn benches, spinning wheels, warming pans for the century-old beds and children's trundle beds that were pushed under the big beds in the daytime, open fireplaces, with long-handled frying pans, spits and big iron kettles, wooden meat grinder, horn lanterns, and iron candle sticks, maple-wood churn and dough-tray, big as a baby's crib. Flint-lock rifles hang on the walls with skins of animals.

Indian Trading Post

The store and trading post shows its stock of jerked beef, cornmeal, calico, peltries, knives and blankets Campaign equipment of
the American army officer of the period, including his boot jacks, is shown. Brass cannon brought to the fort in 1804 are the armament of block houses. Two of the cannon were made in Paris in 1793. The cannon are a

loan from the U. S. Military Academy at West Point, N. Y. The Daughters of the American Revolution, the American Legion, the Chicago Historical Society, the Smithsonian Institution and the U. S. Army and Navy have cooperated in the loans of the objects in the collections.

Historic documents tell the story of the old fort and of the massacre. Among them is a facsimile of the letter from General William Hull to Captain Heald, commander of the garrison, ordering the evacuation of the fort, which resulted in the massacre of 60 men and children, and the capture of the survivors.

PENLAND WEAVERS. A Carolina mountain cabin in which mountaineer weavers are making homespun cloth, rugs and coverlets, hand-hammered pewter ware and hand-made pottery.

"SCHWARZWALDER DORF"

†BLACK FOREST VILLAGE. A glimpse of German country life, in the Black Forest in winter is given in the Black Forest Village. Snow is banked on cottages and chalet roofs. Icicles hanging from the eaves, frozen mill pond and wintry background form the scene which is given verity by the buildings being cooled by an air conditioning plant.

[ 123 ]
Ice skating exhibitions are given continuously on the mill pond. Surrounding the mill pond are picturesque village houses and shops in which are carried on German home industries. You see cuckoo clocks made, canes carved and a village blacksmith hammering out small useful articles. Home manufacture of Kirsch is one of the village activities. German orchestra and strolling musicians give the musical entertainment. The villagers are in the quaint German mountaineer costumes.

*German restaurant, indoor and outdoor tables, table d’hote and a la carte. Also grill, lunch counter. Orchestra, floor show and dancing by guests afternoon and evening.

**RIPLEY’S BELIEVE-IT-OR-NOT**

†ODDITORIUM. Show of incredible truths, wonders and paradoxes. Here you see illustrated, alive or in action, a long array of the astonishing facts that have made Ripley’s cartoons famous.

**LINCOLN GROUP**

†ABRAHAM LINCOLN GROUP. Lincoln’s early life and struggles are depicted in reproductions of his birthplace near Hodgenville, Kentucky, the second Lincoln family home at Little Pigeon Creek, Indiana, his general store at New Salem, Ill., the Rutledge Tavern in New Salem, and the Wigwam in Chicago where he was first nominated for the Presidency.

Relics of Lincoln’s early days have for background an authentic collection of pioneer furniture and utensils of the period. In the Lincoln rooms are seen hand-made chairs and tables, pioneer woodworking and farming tools, gourd dippers, meat grinders, kraut presses, sausage stuffers, a loom for weaving homespun cloth, a barrel made from a hollowed sycamore tree, wool and flax carders and
spinning wheels. Rare early daguerreotypes show Lincoln when he was fighting his way for recognition in Illinois politics.

Valuable additions to the Lincoln relics are the contributions of descendants of Henry Onstott, who ran a copper shop in New Salem, and in whose home Lincoln once lived. The Onstott collection includes the hammer Lincoln used to drive stakes when he was a surveyor, a small trunk, articles from the Lincoln-Berry store and fire tongs from the Rutledge Tavern.

**Old Cabins Brought to Fair**

The birthplace is represented by an original log cabin found standing in southern Illinois. It was taken down and transported bodily to the Exposition. Red clay from Hodgenville, Ky., was shipped to the Exposition to chink the log walls and make the beaten clay floor. The Indiana cabin is built from parts of century-old cabins found near the original site of the Lincoln home.

Rutledge Tavern is reproduced by the same methods. It was in the original tavern that Lincoln met and courted Ann Rutledge in their tragic romance. The Lincoln store, which he operated with his partner William Berry, is built, like the original, of weatherbeaten finished timber. The Wigwam is a reproduction, reduced three-fifths in size.

*Rutledge Tavern, featuring Southern style cooking. Table d’hote and a la carte.*

**DeSAIBLE CABIN**

DeSAIBLE CABIN. Reproduction of the cabin of Jean Baptiste Point DeSaible, which was the first permanent building on the site of the city of Chicago. DeSaible was a Negro of San Domingo who came to the United States in 1779 as trapper and Indian trader.
Lumber House
Brick House
Rostone House

House of Tomorrow
Florida Home
Armco-Ferro Enamel

[ 126 ]

Masonite House
Southern Cypress
Stransteel House

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HOME AND INDUSTRIAL ARTS
GROUP

THE NEW possibilities of the ideal small house are demonstrated at the Exposition in the Home and Industrial Arts section, by a group of completely finished, furnished and equipped homes, ready to live in. The new methods of building with new materials and with prefabricated units for rapidity and economy of construction, are shown.

The new ideas in furnishing, decoration and home planning give a mine of ideas to the home maker. You see the latest, most original uses of new types of furniture.

GENERAL HOUSES HOUSE

GENERAL HOUSES, Inc. An all-steel house, built of steel-panel units, includes five rooms and built-in garage. Insulation of the ready-made, pressed-steel panels is declared to be equal to 24 inches of brick. The interior walls are of finished insulation board. Exterior finish is paint. The house is furnished and decorated to show the practical uses of new materials and conveniences.

One of the rooms in the house is an office-study, emphasizing the useful character of the design. Full-length landscape windows are used in the living room.

The decoration and furnishing are in keeping with the modern spirit, using combination metal and wood pieces. The general idea of the furnishing is functional.

An exhibit of scale models shows the variety of design possible with all-steel construction. Principles of steel-panel building are shown by samples of panels and joints.

MASONITE HOUSE

NEW WOOD PRODUCT. This house is built on a wood frame to illustrate the use of Masonite Presdwood for exterior and interior. It is a modern bungalow type with two bedrooms, bath and kitchen on the first floor, in addition to the living-dining room. Upstairs is a room that may be used for a study, games room or bedroom, opening on a spacious living roof deck, with another deck fitted as a children's play yard.

Equipment of the house demonstrates the modern labor-saving devices, including air conditioning. The furnishing and decoration are designed to show the possibility of the owner of such a home moving into it without having to discard all his present furniture to make room for an entirely new interior scheme. The living room is modern in treatment, but one bedroom is in classical style and the other, Empire-Colonial, demonstrating that all these styles are adaptable to the house in combination.
ROSTONE HOUSE

NEW STONE PRODUCT. Demonstrates the use for exterior and interior of Rostone, a product of pressed stone with steel bolts cast into the slabs for attachment to the steel frame of the house. It is cast in standard size slabs and is capable of various color effects and high polish if desired. Colored Rostone is used to pave the roof deck, the floor of the entrance hall, and for parts of the living room walls. The house has all the living quarters on the ground floor, except the master’s bedroom which opens on the roof.

The interior decoration and furnishing are modern, but without bizarre innovations, and are planned to represent a livable home that can be equipped at moderate price.

LUMBER INDUSTRIES HOUSE

LUMBER HOUSE is built in this group of homes to demonstrate the beauty and assert the place of all-lumber construction.

Representative American woods are used throughout the interior. Ceilings are Douglas fir, cypress and birch. The floors are oak, maple and southern pine. The sash and frames are Ponderosa pine.

Walls of the living room and dining room are panelled in oak and birch, which are used also in the master’s bedroom. Wide, knotty pine boards are used lengthwise on the walls of the boy’s bedroom-study. The kitchen has white maple smooth walls and floor.

The Lumber House is furnished and decorated on a budget plan prepared after a national survey of incomes of small families. The furnishing is divided into three classes: Essentials, for which $1,000 is allowed; Conveniences, $400; and Luxuries, $400.

COMMON BRICK MANUFACTURERS’ HOUSE

BRICK HOUSE. Not only brick exterior but brick walls, floors, stairways and porches are exhibited by this house.

This is the first time this type of construction has been used in a house, although it has been applied to bridges. By means of steel rods embedded in the mortar, every form of overhang, beams or floorspans possible with reinforced concrete or steel, may be achieved.

Ground plan is an irregular hexagon. On the first floor the front half is cut away for a driveway under the second floor porch. Entry, laundry and playroom are on the ground level. Brick stairway ascends to the large living-dining room which, with the kitchen, occupies the entire second floor.

The exterior is painted white. The interior walls are plastered and decorated. Floors of the bedrooms are covered with flooring material. Those of the living room and other parts of the house are the natural brick, ground smooth and polished.

With the complete, scientific, labor-saving equipment, the furniture and decoration are in present-day style that is home-like.
FLORIDA TROPICAL HOME

FLORIDA HOUSE. Modernistic luxury in a design adapted to the unconventional freedom of living largely outdoors is shown in this house, not built to meet a budget but to present an ideal.

Spaciousness and freedom, with a minimum of household labor, is the object. From the front you enter a two-story living room with a ceiling-high studio window on that side, and on the left, a polished aluminum open stairway leading to the upper floor. The living room opens to the dining room on one side, and on the other, to a loggia overlooking the lake. The bathroom is a large, square room with plate glass partitions between the showers and the sunken tub. All the roof, except over the living room, is given to wide deck terraces to which one steps from the airy bedrooms.

Interior decoration is in modern Victorian style, with specially designed furniture, and makes use of wall papers, appropriate drapery fabrics, and special indoor lighting effects.

CENTURY HOMES “HOUSE OF TOMORROW”

†HOUSE OF TOMORROW. This glass and steel house is circular, like three drums piled one upon another, the top drum being the solarium, surrounded by a circular roof terrace.

Living part of the house is all windows, but none of it opens. The air inside is all conditioned, purified and circulated by ducts. Everything is water and fire-proof without corners or dust catchers. Floor of the living story is walnut blocks, bakelite finished.

On the ground floor is a workshop, hangar and laundry. Beyond is a recreation room and a miniature bar.

The electric kitchen is all stainless metal, porcelain and glass. Floor of the master's bedroom is end-block pine. Floor of the child's room is rubber tile. White carrara glass walls, white porcelain equipment and rose-colored rubber tile floor are the bathroom scheme.

Interior decoration and furniture are strikingly modern, in keeping with the unusual character of the house.

SOUTHERN CYPRESS CABIN

SOUTHERN CYPRESS. Not planned for living but to demonstrate the various uses of cypress in building and decoration, this charming chalet is decorative in itself, in its garden setting. Different treatments of cypress for construction are shown.

In the garden is a cypress workshop in which demonstrations are given of carving quaint bird and animal heads from cypress “knees.”

STRANSTEEL HOUSES

STEEL FRAMED. A new type of steel construction is used in this home. The frame members are made of two channels with grooved backs welded or riveted together. Nails driven between the channels follow the lengthwise grooves."
Linoleum is used on the floors and linoleum products for the laundry and bathroom walls.

The two bedrooms are on the ground floor. Most of the roof deck is given to lounge and recreation space surrounding the recreation room, which has a large solarium alcove.

The interior decoration and furnishings are in modernized traditional style with the accent on livability.

**Garden Home**

STRANSTEEL GARDEN HOME, is a companion to the Stransteel house and is built in the same construction. The house is designed in the Cape Cod tradition and is planned for enlargement, if necessary, to grow with the family.

**ARMCO-FERRO ENAMEL HOUSE**

FRAMELESS HOUSE. An example of the new construction of a frameless, all-steel house built of factory-made units. The house is two-story, attractive in its classically simple lines, and exterior of dull gloss enamel.

Walls and floors are made of box-like units ready fabricated at the steel mills. The wall units are house high, with door and window frames welded in place. At the first floor ceiling line, a metal conduit welded on serves for a continuous floor bracket.

To the inside walls a layer of insulation is applied, and over it, two coats of plaster. The ceilings are finished in acoustical tile.

In the interior decoration and furnishing, practical livability and attractiveness within moderate price range are stressed.

**Guest Cottage**

GARDEN COTTAGE, that may be built in connection with a larger house for overflow of guests, is in the garden, adjoining.

**AMERICAN LEGION HEADQUARTERS**

WORLD'S FAIR POST of the American Legion is to be established at this Exposition headquarters for Legionnaires. Exhibits of Legion activities and the plans for the welcome of visiting veterans are in charge of the American Legion Century of Progress Committee.

**OWENS-ILLINOIS GLASS-BLOCK BUILDING**

GLASS BLOCK BUILDING and tower, built by the Owens-Illinois Glass Company of this new structural material. The glass blocks are hollow and thus insulate against heat and cold. Decorative effect of the colors is seen by daylight inside the building and in brilliant illumination effects.

A collection of historical glassware and decorative pieces, lent by the Toledo (Ohio) Museum of Art, is seen in the exhibit hall.

Miniature glass plant in operation shows the complete process of glass manufacture. The industrial exhibits include glass-wool filters

[131]
and models showing their application. Home air-cleansing equipment, using glass-wool filter in connection with heating equipment, is demonstrated. Coffee vacuum jars, tamper-proof oil bottles, other types of bottles and preserving jars are shown.

Use of glass block construction is illustrated by models of residences, industrial plants, stores, and filling stations, in natural settings of streets and trees.

**HAEGER POTTERY EXHIBIT**

POTTERY FACTORY. Exhibit of art pottery and group of Southwestern Indian potters at work. The demonstration of primitive and modern methods of making pottery is the exhibit of the Haeger Potteries, Inc., of Dundee, Illinois.

A family group of San Ildefonso Indians, among the finest pottery makers of the North American primitives, are in native adobe huts in the pottery exhibit.

A modern plant shows mechanical mixers at work. "Throwers" spin clays into shapes on pottery wheels; artists hand-decorate the dried shapes. A modern rotary kiln, 24 feet in diameter, automatically fires 6,000 pieces a day.

The newly manufactured pieces are exhibited with fine show pieces from various parts of the world. Three ultra-modern rooms, a living room, a bedroom and a dining room, illustrate the use of the art pottery and decorations.

*VICTOR VIENNA GARDEN CAFE. Restaurant a la carte, featuring Viennese and Austrian dishes. Indoor dining room and outdoor garden. Also cafeteria. Orchestra. Floor shows 9 p. m. to closing. Dancing by guests 6:30 p. m. to closing. [132]*
HOME PLANNING HALL

HOME PLANNING HALL. Here are seen exhibits of direct application to the problems and wishes of modern home planners.

Three model all-metal kitchens show the use of stainless, glittering metal for sinks, drain boards, table tops and other equipment. Each kitchen exhibits a different plan for efficient construction.

Scientific tests of various materials and household machines are shown by fact-finding research specialists. Here you see tests applied to enamel wares to ascertain their resistance to chipping, to staining and to heat. House paints are given what are described as accelerated weather tests. Intense, concentrated light rays in which the destructive rays are a large element, are turned on the samples.

By continuous bending under weights the test of accelerated wear is given to spring steel furniture. Methods of refrigeration are tested and explained. Wire fencing is given a metallurgical test. Efficiency of vacuum cleaners is tested. Rugs are given accelerated tests.

Test Yourself

Nearby you may test yourself—that is, your physical condition as evidenced by your resistance to fatigue—on a "wobble machine." You stand on a small, trembling platform which registers how steadily you hold yourself. This fatigue test is in an exhibit of inner spring mattresses.

Pumps for water circulation in rural homes and other buildings are shown, with an exhibit of oil-burning heating equipment. With this exhibit is a show of toy machines for children.

A giant mixing machine for mayonnaises and other foods is seen in operation. There are exhibits of various types of mixers, vacuum cleaners, faucets and shower bath equipment and of cast aluminum kitchenware. An exhibit tells the story of air conditioning and hot air heating. Washing machines are seen in a demonstration.

GAS INDUSTRY HALL

An extensive exhibit is devoted to the story of gas in the home. A domestic science instructor makes cookies on a gas stove to illustrate her lecture on the use of gas for cooking. Model kitchens illustrate the efficient planning of the space for labor saving.

Gas ranges, water heaters and house heating equipment are shown. Mechanics give a demonstration of the ease with which gas heating apparatus is installed in any furnace.

An automatic coal stoker in operation shows the apparatus in action, firing a furnace. A furnace has part of one side cut away to show the working parts of the coal stoker as they operate. A model coal tipple in action shows how coal is loaded into freight cars.
Hard coal tells its story by showing a heating plant boiler with part of a side cut away to show the flues.

Here are more mixing machines and other electrically driven kitchen equipment. An exhibit of wax floor polish shows its application to various wood floors and to linoleum. More home heating boilers have sides cut away to show the inner construction.

**Marionette Theatre**

A marionette show, operated by professional puppet-show artists, gives a performance in a theatre connected with an exhibit in which girls in costume demonstrate uses of cleaning powder.

Construction of paint brushes is shown. An exhibit of gas-operated refrigerators shows how the freezing element is actuated by a tiny gas flame.

On the upper floor of Home Planning Hall you will find an exhibit of rugs shown by an ingenious device.

The house furnishing exhibits on this floor are divided into sections. On one side you see wares applicable to kitchen use, equipment, pressure cookers, jelly molds, utensils and cabinets. On the other side are furnishings, fine displays of glassware, redwood giftware, clocks and other idea-giving exhibits.

**CRANE CO. STATION**

A 45-FOOT SHOWER bath is a refreshing attraction. The shower is a giant reproduction of the company's shower bath equipment. At the base of the tower is seen, in contrast, a bathroom used in 1893. Here, also, is seen a modern, de luxe bathroom.

Display of antique and historical plumbing fixtures includes a "chaise longue" French bath tub of 100 years ago, a French lavatory 150 years old, a bath tub shaped like a hat that was in vogue in this country after the war between the states, and a bath tub of the type used by Queen Victoria in England.

Complete plumbing installation for a rural home is shown, including automatic system to supply running water, complete bathroom, kitchen and laundry. Glass partitions enable view of all the piping.

Efficient, modern kitchens are shown with complete plan of all kitchen equipment. Heating and air-conditioning equipment is shown as applied to the typical, average home.

The industrial exhibit shows valves, fittings and pipe in their application to various industrial and engineering uses.

**JOHNS-MANVILLE BUILDING**

USES OF ASBESTOS are shown in a complete home remodelling exhibit. Here is seen, as the main feature of the decoration, one of the most striking modern mural paintings of the Exposition. It is 88 feet long and 18 feet high. The artist is Leo Katz, of Vienna, Austria.
Half-nude figure of a man kneels in the center over the title "Give Us This Day Our Daily Light." Two triangular panels are on each side. The first is "Cold," done in greenish black, including a pale horse covered with icicles.

Writhing figures dance amid flames in the panel "Heat," which is done in red as is the opposite panel "Sound."

"Motion" balances the first panel. An engineer bent over a drafting board is surrounded by machinery bearing him down.

The exhibit is devoted to the various uses of asbestos and asbestos products. Museum specimens of asbestos from all parts of the world are shown, with asbestos in all stages of manufacture.

**KOHLER**

**KOHLER BUILDING.** Luxury of the modern bath room, modern kitchen equipment, including electric dish-washers, heating equipment, electric household equipment and other modern appliances for comfort, labor saving and beauty of the home, are shown in the exhibits.

Mural paintings illustrate the romance of commercial enterprise that brings products from far places of the earth to be used in manufacturing and cultivates world-wide markets for its products. Photo-murals and dioramas within the building show Kohler Village and the Kohler industry in Wisconsin. The building is in a charming garden setting.

27TH STREET ENTRANCE.
1—Ford Exhibit
2—Frigidaire House
3—Maya Temple
4—31st Street Entrance
5—General Motors Bldg.
6—Chrysler Track
7—Pal-Waukeen Airport
8—Chrysler Bldg.
9—Cafe de Alex
10—Television Theatre
11—Standard Oil Show
12—Travel & Transport Bldg.
13—Wings of a Century Pageant of Transportation
14—Wilson 6-Horse Team
15—Whiting Corp. and Nash Motors Bldg.
16—Brookhill Dairy
17—Chicago & Northwestern R. R. Exhibit
18—Outdoor Railway Trains
19—Universal Flivver House
20—Farm Home
21—Goodyear Exhibit and Field
22—International Egg Laying Contest
23—Country Home Farm House
24—Farm Entrance
25—35th Street Entrance
FORD EXHIBIT

FORD BUILDING. The dome, 200 feet in diameter, represents the giant cogs of a set of gear wheels. The building embodies new principles of electric illumination, both for lighting and for spectacular effects. Nearly four acres of floor space are devoted to educational and industrial exhibits. Albert Kahn of Detroit is the architect.

Main entrance is through the rotunda. Here 67 vehicles of different eras show the development of wheeled vehicles from the Egyptian chariot to the motor car of today. Around the rotunda-concourse is a series of photo murals 20 feet high and 600 feet long.

Middle of the rotunda is the Court of the World, open to the sky. An electrically revolved globe 20 feet in diameter is in the center.

Looking upward at night, the visitor gazes into a weaving mass of colored clouds of ceaselessly changing patterns, from which rises an enormous pillar of clear, white light that under proper atmospheric conditions attains the height of one mile. Twenty-four 38-inch projectors of 5000 watts are used to create the pillar of light.

Ford Museum

Ford Museum occupies the south wing of the building. Among other relics, the museum contains Mr. Ford’s first work-shop and his first automobile, built in 1893. An old-time machine shop demonstrates that mechanical progress is dependent on machine development.

The north wing, known as Industrial Hall, is 585 feet long by 213 feet wide. It houses upward of forty industrial exhibits. Raw
materials such as copper, iron, zinc, aluminum, rubber, cotton and wool are carried through the actual stages of manufacture to finished parts for motor cars. This display, as a whole, demonstrates the dependence of industry upon the soil.

Especially interesting to electrical engineers is the lighting of Industrial Hall. A combination of high-pressure mercury tubes and lamps gives a light that attains the clarity of 80% daylight at noon of a clear day.

The system of sound amplification, both within the building and without, employs a total of 289 master loud-speakers and 223 auxiliary speakers. No speaker is of greater than three watts volume, so that none amplifies more loudly than a conversational tone. Four separate programs might be broadcast in the building simultaneously without one interfering with any other.

**Farm Exhibits**

To the rear of the south wing of the main building is a weather-beaten barn which was transported to Chicago from the Ford homestead at Dearborn where it was built the year that Henry Ford was born. In this barn is an exhibit of Henry Ford’s solution of our farm problem. An improved machine for the processing of soybeans is shown in operation. The practical possibilities for profit in this crop are pointed out. Nearby a small machine shop, wherein parts for cars are being made, demonstrate how the farmer may become a manufacturer as well as a food grower.

**“Roads of the World”**

Across from the Ford Building, on the lake front, is Ford Gardens. Here are the “Roads of the World.” A roadway reproduces, in nineteen separate sections, examples of world-famous highways from the earliest Roman and Chinese roads to the smoothly paved highways of today.

In the gardens are seats in which to rest and listen to the daily concerts by the Detroit Symphony Orchestra of seventy pieces.

**MAYA TEMPLE**

MAYA TEMPLE. Reproduced section of the Mayan Temple, the Nunnery of Uxmal, in Yucatan. In its halls are relics of the artistic and engineering genius of the lost civilization of America.

In the center, the wide stone staircase up to the main hall is as it was when the original was trodden by thousands of worshippers.

The elaborate facade of the Uxmal Nunnery at the Exposition Fair is an exact reproduction in its original color of yellowish brown, with dark green and deep red symbolic sculptured ornaments. Principal element of the sculpture is the serpent mask. It is the Mayan representation of Kukulcan, the plumed serpent god.
THE MAYA TEMPLE

Ceremonial Dancers

In the long hall of the temple is a life-size figure of a Mayan Feather Dancer. The gaudy, feathered costume is the only one of its kind in any museum. It was made by Indians of Xachila, state of Oaxaca, Mexico, after the ancient pattern used 2,000 years ago in dances in honor of their gods. Another life-size figure is that of a Jaguar Dancer in full costume.

Figure of an Indian girl from Zacatecas is wearing the China Poblana, the national festal garb of Mexican women.

Near a case of Maya pottery is a figure of a Mayan woman of today making pottery by hand.

Shrunken human heads, war trophies of the Jivaro Indians, who still preserve their independence in the jungles of Ecuador, are a weird exhibit.

Codex Tulane

The Codex Tulane is the only complete Middle America manuscript in the United States. It is a strip of deerskin twelve and one-half feet long and nine inches wide, on which is a record in picture writing and hieroglyphs.

In cases in the hall are exhibits, including ancient Maya currency. Brilliant feathers of the extinct quetzal bird are the highest money. Next come jade beads, small copper bells and coca beans, the money of the common people.
There are many jade carvings, miniature statuettes and pendants. Obsidian is the material of numerous figurines, household gods and ornaments as well as of large and small knives with curved blades, sharp as razors. A Mayan beauty once studied her features in a mirror of polished pyrite. There are finely executed miniature masks.

Mass production is shown by clay molds from a temple storehouse. Clay stamps bear designs which could be rapidly printed off singly or in combinations. Dentistry for ornament was practised, as is evidenced by the skull of a rich man, his teeth inlaid with jade and turquoise. Tomb of a Mayan chief, built into one wall of the Temple, is lined with some of the finest known Mayan relief sculptures in stucco.

Polished white marble jars, bowls and trays, thin as tea cups and pierced with lacelike ornament, were worked out with small nephrite hammers.

Tunkul Drums

A small, richly carved drum, of polished red wood, has four loose squares in one side that produce four different notes. Similar principle is that of the tunkuls, or ceremonial log drums.

A wall covered with dots and dashes like telegraph code shows the numerical system of the Mayas, who reckoned in twenties instead of in tens. Enlarged photographs show the descendants of the Mayas as they are today.

31ST STREET ENTRANCE.

GENERAL MOTORS

GENERAL MOTORS BUILDING. The 177-foot tower dominates the building, which is 429 feet long and 306 feet wide. The construction is steel, concrete and steel-sheathed wall board. More than 1,100 piles were driven to provide the foundation. Electric power used in the illumination requires 92,000 horsepower per month, enough to pump water for a city of 25,000 inhabitants or to provide home and street lighting for a city of 7,500. Three times this amount of power is used in the operation of the exhibits. Architect is Albert Kahn of Detroit. Construction equipment and operation of the exhibit represent an investment of approximately $3,000,000.

In this building you see a complete automobile assembly line in full operation. Taking the automobile factory to the people and showing them exactly how a motor car is put together is the purpose of the show.
Automobile Assembly Line

From a balcony a fifth of a mile long, 1,000 visitors at a time may watch the entire process, from the first step of the assemblage of a Chevrolet car until the finished car is driven off at the end under its own power. Constant production of cars is maintained in this exhibit throughout the Exposition, and the cars thus made are part of the regular output of General Motors.

Two hundred white-uniformed, expert workmen are at their separate jobs along the line. You look down on them and see the steel frames of the chassis starting on their journey. Cranes swing the wooden body framework over them and the swift workmen at that point, with their electrically powered screwdrivers and wrenches, fasten the framework together. The steel bodies are swung into place, welded and bolted, the joints polished mirror-smooth, and the job, beginning to look like a car, moves on, followed by the endless line of others. You see how the inside of the body is finished along with the wiring, the adding of the transmission and other mechanisms, the swinging of the engines into place, the car constantly growing, every one of the expert mechanics adding his touch, until the final inspection and testing of the engine. The car is run into the line of finished jobs to be driven away at the end of the working day.

It is astonishing how quietly the operations are conducted. Everything fits in its place. The cranes silently swing the heavy parts to exactly the right position and the whole job goes on with little noise.
Sculptures in Hall of Progress

In the Hall of Progress an extensive mechanical exhibit shows the development of a number of the automotive improvements created during the history of the General Motors organization. These include the self-starter and electric head lighting.

The Hall of Progress is embellished by sculptures and marquetry mural decorations. Statues in wood by Carl Halsthammar, and the striking statue, "Precision Workmanship," by Carl Milles, the celebrated Swedish sculptor, are notable art objects. The murals are by Miklos Gaspar and Matthew Faussner.

Methods and instruments used by the scientists in the corporation's research laboratories are shown in another exhibit room, which is completely air-conditioned. In this exhibit you see the fluorescent fountain. It is made of a large number of the rare minerals used in the regular work of the research staff. Ultra violet light played on these minerals produces a strange flow of color effects.

Refrigeration Exhibits

Home and commercial refrigeration and air-conditioning is the subject of another large exhibit.

The work of the consumer research staff, which investigates and tabulates the desires of 1,500,000 American motor car owners each year, is explained in an extensive exhibit.

The moving picture theatre shows a series of educational films.

In the great semi-circle of glass-fronted exhibit rooms around the building are seen the many models of automobiles, deluxe bodies and other products of General Motors. The building is surrounded by a concrete terrace and landscaped gardens. On the lake-front side is the pier for steamer and motorboat landings.

CORRECT TEMPERATURE HOUSE

FRIGIDAIRE HOUSE. A small modern home demonstrating all-year air conditioning. The house is built to show scientific construction in insulation from heat and cold and is planned for ultra-modern conveniences in labor-saving and healthful conditions. How three essentials of life—food, air and water—are kept at proper temperatures for health at all seasons of the year, is demonstrated by automatic home equipment.

CHRYSLER BUILDING

CHRYSLER BUILDING. A huge drop-forged steam hammer, shaping steering knuckles from red-hot steel billets, and a quarter-mile outdoor exhibition and testing track and sand pit, are features of the animated exhibits in the Chrysler building.

The main building is in the form of a Maltese cross with four pylons, 125 feet high, and an open center well. A long, elevated
promenade overlooking the track, connects this building with the smaller building at the north. Holabird and Root are the architects. Airy, outdoor effect, with comfortable chairs and settees placed everywhere in shady and breezy spots, carries out the inviting and hospitable plan of the building.

Exhibition Track

On the track a free exhibition of automobile driving and testing is given hourly under direction of Barney Oldfield, the celebrated racing driver, who acts as master of ceremonies, greeting the visitors and sometimes taking the wheel.

In the wide, circular plaza, which runs all the way around the ground floor under the roof of the main building, is a varied exhibit of the science and art of automobile manufacture. Graphic and animated displays show the results of research by engineers, and the principles involved are understandably explained.

Automobile bodies turn wrong side out to show how they are made on their steel frames.

In demonstration of actual operations you see welding operations performed, cloth woven, safety glass made, coil springs wound and shaped, paint and lacquer in process of production.

Effect of air resistance on different shapes of cars is demonstrated in an exhibit that shows how engineers work out the airflow principle. You may make the test yourself.

Operating exhibits farther around the circle show how tests of stability and stamina are applied to materials and to car design. The color setting and arrangement of the series of exhibits is the work of Count Alexis de Sakhnoffsky.
Moving Picture Theatre

In the center of the circle, at the base of one of the pylons of the main building, is the moving picture theatre in which dramatic tests of cars are shown. In one of them an automobile is knocked off a 300-foot bluff by a truck. The car bounces and somersaults to the bottom and then is driven away with no apparent damage except dented fenders and top.

On the second floor of this building is a fashion salon of finished motor cars. From here you may walk out on the promenade to look out over the testing track. A long pool with four spouting fountains is between the two buildings. Under the promenade is a continuation of the main building exhibits.

AIRPORT

PAL-WAUKEE AIRPORT. Sight-seeing rides in amphibian planes. Landing for amphibian transport planes.

*CAFE DE ALEX RESTAURANT, table d'hote and a la carte service. Indoor and outdoor tables. Orchestra.

TELEVISION

†TELEVISION THEATRE. Dramatic shows, demonstrating the progress of television for news and theatrical productions.

LIONS AND TIGERS

IN WILD BEAST TAMING EXHIBITION

STANDARD OIL SHOW. Free exhibition of thirty-three jungle-born lions and tigers and their trainer in a daring performance.

There are 2,500 free seats in the outdoor theatre around the steel-barred arena, called the "Red Crown Cage of Fury." In this cage Allen King, one of the few trainers who have been able to control a large group of lions and tigers at one time, puts the savage beasts through their performance.
**First Appearance of Beasts**

A number of these animals are making, in this act, their first appearance as performers. Jungle born animals are said to respond to training more readily than do animals born in captivity. The lions are from Barbary and Central Africa. The tigers came from Sumatra and North China. Allen King has been training the lions and tigers to appear together all winter, at menagerie headquarters in Peru, Indiana. During that time he had no serious difficulty with them.

Supporting the lion and tiger performance is an act by a herd of elephants, under a woman trainer, Miss Estrella Nelson.

Four or five exhibitions are scheduled for each day. After the performances the public may go through the menagerie and inspect the beasts in their cages.

**TRAVEL AND TRANSPORT BUILDING**

TRANSPORTATION DOME, and the Great Hall of the Travel and Transport building, are two of the most original conceptions of the new architecture. The striking design of this gigantic building is a reflection of the new ideas involved in its construction.

The Dome is an architectural innovation that has been more discussed than has any building erected in recent years. Instead of being supported by pillars the dome, 205 feet in diameter, is suspended from twelve trussed towers. This novel suspension construction allows under the dome a floor space more than 200 feet across entirely free of obstruction.

Suspension principle allows for expansion and contraction from heat and cold and this gives it the name—"the breathing dome." Its engineering principles have proved their soundness, the dome coming intact through the severe conditions of two winters on the lake front and bearing the load of heavy snowfalls with ease. Principle of construction established by this demonstration will be seen in future applied to other buildings requiring large unobstructed areas under roof. Architects of the Travel and Transport building are J. A. Holabird, Hubert Burnham and E. H. Bennett. Clarence W. Farrier was the architect of Transportation Dome with Leon S. Moisseiff as consulting engineer.
History under the Dome

Historical exhibits are arranged around the rotunda of the Dome. Here we see a reproduction of one of America’s first locomotives, built by John Stevens, of Hoboken, N. J., in 1825.

Next in the circle is a U. S. Navy fighting seaplane.

A weather-bleached Conestoga covered wagon leads a procession of three ancient vehicles. The Conestoga is not the “prairie schooner” of the western trek but is the older, heavy wagon that carried emigrants west from the Atlantic Coast. Behind the Conestoga is a bullet-scared Rocky Mountain stage coach, built in 1860. The line is brought up by a tottering old two-seat automobile surrey of 1907. A spidery, high-wheel bicycle of the eighties is followed by a four-rider “safety bicycle,” the thrilling racing machine of the nineties.

A modern, steel-bodied, two-unit transportation truck is contrasted with a power wagon built in 1907. A pioneer power tractor of 1906 is beside a modern, compact, rubber-tired tractor. In this exhibit you see a pioneer buggy-type automobile of the ’90’s with its steering lever and bicycle chains.

A modern motor fire truck is contrasted with one of the first steam fire engines.

Pilot house of a modern steamship, exhibited by the U. S. Department of Commerce, shows the use of standard and gyro compass, engine room telegraphs, radio direction finder and the “fathometer” which takes soundings by echo from the sea bottom.

You may go through one of the world’s swiftest, multi-motored, all-metal planes. The ship’s speed is 200 miles per hour. Its capacity is ten passengers, crew of three and 800 pounds of mail and express. The cabin has thermostatically controlled vapor heating, reclining chairs for night travel and a lunch sideboard.

New type of city transportation is shown in a motor bus street car with doors at both ends.

The world’s mightiest electric locomotive stands nearby in the Dome. The giant is 76 feet long, 17 feet 4 inches high, and weighs 521,000 pounds.
All-Aluminum Sleeping Cars

The first two all-aluminum sleeping and observation cars ever built stand imposingly at the entrance to the great hall. End of the observation car is a stream-lined turtle-back.

Between the two aluminum giants stands a small, weather worn brown wooden sleeping car, which made its first trip Sept. 1, 1859, from Bloomington, Illinois, to Chicago. There are no lower berths. Wood bunks are let down above the tops of the low seats.

Near these cars is a large floor exhibit of up-to-date sleeping car bedrooms, compartments, staterooms and berths.

At the north end of the great hall, a relief map of Glacier National Park and its surroundings shows Yellowstone Lake in its lofty basin.

Antique "six shooters," armory of the pony express riders of California gold rush days, are among railway express exhibits. An armored automobile truck, with its loop-holes and arsenal of modern weapons, is an example of the motorized traveling fortresses that transport money in cities.

Historic Dioramas

An acting diorama reproduces the laying of the first stone in a railroad system a hundred years ago. Figures almost life-size in beaver hats, stocks and ruffled shirts, move and speak in the scene.

Other dioramas are views of Harper's Ferry and of historic scenes in railroad history, one of which, on a stage with moving runways, shows the race in 1829 between Peter Cooper's engine, the "Tom Thumb," and a horse car.

A line of operating miniature models represents the development of the locomotive. At the end is the original "Atlantic" locomotive, date 1832, in operation.

Moving trains and steamboats are in a diorama of the view across the Hudson River to the headland Storm King. An historic display of model vehicles is in this exhibit.

A twenty-two foot illuminated relief map, showing national and international trade routes, is in a great exhibit which includes the "Mississippi," the South's oldest locomotive, date 1834.

Pioneer Railroading

The "Pioneer," first locomotive to run out of Chicago, in contrast with a profile of the largest type of passenger locomotive in the world, shows the "Pioneer" no longer than the tender of its successor.

Here you will see a pioneer train. The small, plain, wooden cars, rough seats and open platforms give a picture of early days of railroading in America.

You may step into a full-size locomotive cab and examine the controls. Sections of roadbed and specimens of track, ties and ballast are in this space.
Motion pictures in another exhibit tell the inside workings of a railroad system and a talking motion picture in full color shows and describes stretches of the Rocky Mountains.

Dioramas illustrate the progress of the Southwest in the past 100 years through cotton, livestock, wheat and oil.

Operating exhibits show an electric hoist and welding by electric arc.

Glass profile of an automobile, showing all the operating elements, is the feature of a parts and accessories show. Clutch, brakes, carbureter and transmission are shown in detail by working models.

**Automobile Theatre**

Largest automobile ever built, 80 feet long and 39 feet high, is a motion picture theatre in which films are shown telling a story of motor car manufacturing.

Safety glass is demonstrated by a screen-enclosed tunnel through which visitors are invited to throw baseballs at glass panels.

Expert workmen in a complete factory unit make safety glass sheets, and transparencies show all the steps in the process of glass production.

Motorcycles, featuring a new police model, are shown.

Bicycle manufacturers exhibit an historical collection of bicycles. The earliest example is a "hobby-horse," which the rider straddled and kicked along with his feet on the ground.

High-speed escalator carries visitors to the second floor of the building.

A display shows the history and evolution of locks.

There is an exhibit of the tourist attractions of the Philippines and a display of jewelry, pottery, metal work, weaving and wood carving shows the handicrafts of the natives.

A trailer unit for motor travel contains a kitchenette, refrigerator, sleeping quarters, and daytime arrangements for comfort en route.
An historical exhibit of car couplings illustrates the development from plain bar fastenings to massive automatic couplers. Types of rail joints, anticreepers, and rail flange lubrication are exhibited. Annular and thrust bearings are exhibited with a display of the precision instruments used in making ball bearings.

A four-track toy train electric system is built to scale in miniature.

**Amateur Radio**

The World's Fair Radio Amateur Council has its exhibit space and operating station on this floor. A radio-controlled boat is operated on the lagoon by remote control, operators on shore starting, stopping and maneuvering the boat.

Three short-wave transmitters are in operation. Any licensed radio transmitting amateur visiting the Fair may operate the transmitters if he has his license with him. It is unlawful for a person to operate an amateur station unless he has his license on his person.

In the exhibit is a full-size, old-time "spark station" which will show how amateurs sent and received signals in the early days.

**Sportsman's Show**

The International Motor Boat and Sportsman's Exposition occupies a large section of the second floor. In a forest setting is an exhibition of wild life. Bait-casting and fly-casting contests are scheduled. Archery contests are an added attraction. Motorboats, outboard motor equipment, canoes and hunting equipment are on display in a great sportsman's show.

**OUTDOOR RAILWAY TRAINS**

An epoch-making exhibit, revealing the swift advancement and evolution of transport in the past 100 years, is on the out-of-doors exhibition tracks south of the Travel and Transport building. Here
are two of the new streamlined, motor driven trains that have been put into service in the past few months.

One of these is a six-car, streamlined, 110-mile-an-hour Diesel driven train.

What the development of such a train means to the world of transportation is shown by the following contrasting facts:

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

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.

The train is air-conditioned throughout; temperature controlled by thermostat. Interior color scheme is blue and aluminum. All lighting is indirect.

A Three-Car Unit

Nearby is another new streamlined, Diesel-powered train, a three-car unit. This unit train is built of stainless steel. It weighs only 80 tons, no more than a single standard sleeping car. It rides on articulated trucks with roller bearings. It is air-conditioned, radio equipped, has windows of shatterproof glass and electro-pneumatic brakes. Rear of the last car is an observation solarium.

[ 151 ]
SCENES FROM WINGS OF A CENTURY

[ 152 ]

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Three other streamlined rail car jobs, single coaches, Diesel and gas-motored, are shown in this group.

A museum piece, an ancient locomotive of 1827, is shown beside a modern, high-speed locomotive.

Another historical exhibit shows the evolution of the railway coach from 1830 to the present. The newest train is equipped with “4-way conditioning,” which includes humidifying, dehumidifying, air cooling and warming.

WINGS OF A CENTURY
THE PAGEANT OF TRANSPORTATION

WINGS OF A CENTURY. Pageant drama, depicting the creation and development of the transportation system of the United States. An army of actors and horses, and the largest collection of actual historic vehicles ever brought together and shown in action under their own power, are used in the action.

Trappers and hunters, risking their scalps by penetrating into the wilderness where white men have never been, begin the action. Indian fights, Daniel Boone and his followers attacked in their camp, the “covered wagons” crossing the plains, cowboys, stage-robbers, the gold hunters in California, the Sacramento water-front, miners, gamblers and dance hall girls, make scenes of fast action.

Mutinous drunken sailors fight with their officers and police when a clipper ship docks in the East. Queer old post chaises, early stage coaches, “hobby horses,” canal-boat days, race between a horse car a pioneer American locomotive, and humorous travel episodes show the beginning of railway traffic.

Ante-Bellum Days

Old Mississippi days are shown in a levee scene. A steamboat, with its load of ladies in crinoline, planters and river gamblers, docks at the levee during a Mardi-gras festival. Negro roustabouts, field hands and levee loungers sing spirituals to the masked revellers.

Transportation advances in spite of everything. Dramatic moment shows the “driving of the golden spike” at the joining of the transcontinental tracks.

First Automobiles

Appearance of the first automobiles at the World’s Fair of 1893, the Spanish princess at the Columbian Exposition, flaunting costumes of the “gay nineties,” introduce a fascinating procession of historic first automobiles. There is a tense thrill at the first airplane flight by Wilbur Wright at Kittyhawk, North Carolina. Conclusion is an impressive moving scene of huge, modern locomotives, giant motor [ 153 ]
trucks, automobiles and a great, all-metal, transcontinental airplane.

"Wings of a Century" was acclaimed at the Exposition of 1933 as an historic pageant of the most intense dramatic and patriotic power. For the Exposition of 1934 the pageant is greatly augmented.

OUTDOOR MOTORIZED TRANSPORT EXHIBITS. Exhibit and demonstration of heavy trucks, trailers and tractors.

CHICAGO & NORTH-WESTERN OUTDOOR EXHIBIT. A Class H locomotive —Class H signifying the largest locomotives used for both passenger and freight service—is on display. Chairs and tables provide a place for picnic lunches.

WHITING CORPORATION AND NASH MOTORS BUILDING

WHITING AUTOMOBILE PARKING TOWER, eighty feet high, enclosed in glass and illuminated at night by flood lights, exhibits automobile parking by the elevator tower method.

NASH MOTORS CO. exhibits an endless chain of Nash and Lafayette cars constantly ascending and descending the parking tower. Nash and Lafayette cars and an exhibit of the Nash Motors Co. are in an exhibit room and lounge which gives a close-up view of the parade of cars in the elevators.

AURORA FLOOD LIGHTS. Illumination spectacle by battery of flood lights in changing colors.

35TH STREET ENTRANCE.

THE FARM GROUP

An exhibit area of prime interest to farmers has been organized south of the transportation group. In the Travel and Transport building near the central entrance to the Great Hall is a large lounge and meeting place for farmers’ headquarters. Addresses will be given here under the auspices of the Agricultural Council of the Chicago Association of Commerce.
COUNTRY HOMES

In the Farm Area are found a series of exhibits of practical interest. Collateral with them are the exhibits of farm machinery, production and distribution in the Agricultural and Foods Building and the interesting exhibits of farm industries in the Ford Building.

So much attention has been directed toward the economic and attractive possibilities of country living that the modern farm and country-life homes built as exhibits for the Exposition of 1934 are of timely interest.

COUNTRY HOME FARM HOUSE

MODEL FARM HOUSE shows the new ideas of comfort and efficiency applied to the home of a practical farm operator. The living quarters of the family are private and separate from the daily work contacts of the farm. The garage, dairy machines room, work-bench and repair room, wash room for the assistants, and other working spaces are on the ground floor of the house.

The private family quarters on the second floor include a large living room with fireplace, expansible dining space, kitchen, three bedrooms and bath. The furnishing and decoration are in the modern style, according to a simple plan of moderate cost.

Construction of the home is planned to be such that it may be built with materials available at the site. Novelties consist in fire-safe construction, insulation and economies in making use of prefabricated materials and units as far as possible.

UNIVERSAL FLIVVER HOUSE

“FLIVVER” HOUSE. While this model home for the farm or town is not entitled a “subsistence house,” it fits into that picture of a scientific modern dwelling of small cost that may be placed wherever desired.

The plan includes living-room, two bedrooms, nursery, kitchen and bath. There is a large, open-air porch. Flat roof deck provides additional recreation space.

Construction is frameless, with sheet steel panels, twenty-four inches wide, house high, and stiffened by a three-inch steel web. The floors and roof are built of panels twelve inches wide and braced by five-inch steel web. The thickness is filled up with spun-glass insulation. Interior finish is decorated insulation board. Roof is of the built-up asphalt type.

WILSON TEAM

WILSON 6-HORSE TEAM. A model modern stable, home during the Exposition of the Wilson & Co. blue-ribbon six-horse team of Clydesdales. These horses appear daily in the Wings of a Century pageant.
BROOKHILL DAIRY

MODEL BARN AND DAIRY, with thoroughbred Holstein and Guernsey cows in latest model sanitary stalls showing scientific production of milk. Each cow provided with separate sanitary drinking bowl, operated by the cow. The stable is built of specially treated concrete. It is fire, vermin and rust proof, patterned after an airplane hangar, according to the newest European type of barn construction. Visitors look at the cows through plate glass partitions in order not to disturb the animals, which are milked hourly by machines. Cows’ diet includes irradiated yeast for the production of “Vitamin D Milk.”

Dairy building is of hollow glass building blocks, resistant to temperature changes and admitting light. Model milk storing, separating and bottling plant shown in operation. The barn and dairy are the exhibit of Brookhill Farm, Genesee Depot, Wisc.

*Dairy restaurant and lunch counter. No alcoholic drinks.

INTERNATIONAL EGG LAYING CONTEST

POULTRY EXHIBIT. In rows of modern hen houses the pure-blood, blue ribbon hens entered in A Century of Progress Egg-Laying Contest are competing for the championship. Most modern methods of housing, feeding and care for egg production are demonstrated.

Poultry show includes specimens of:

Japanese Silkies—featherless chickens which are covered with glossy down; Dutch Lakenvelder fowl; White crested Black Polish; English Dorkings and Sussex—the leading English meat fowl; Australorps, Australian fowl, holding world record for egg production and one of the heaviest breeds; Turkens—a hybrid asserted to be a cross between turkey and chicken; and Jersey Giants—both black and white, the heaviest breed of chickens.

*Restaurant, featuring poultry products. Service a la carte. Indoor and outdoor tables. Also lunch counter.

GOODYEAR EXHIBIT AND FIELD

BALLOON FIELD. Sight-seeing dirigible balloons start from and return here after trips above Exposition and lake front. Lounge, smoking, wash rooms and rest room.

SOUTH (FARM) ENTRANCE.
THE WHITE GIRL, by James McNeill Whistler
A CENTURY OF PROGRESS
ART EXHIBITION

†THE WORLD'S FAIR ART EXHIBITION is in the great range of galleries of the Art Institute of Chicago, in Grant Park, a short distance from the North Entrance of the Exposition. The immense value of the irreplaceable old and modern works in the Art Exhibition requires that they be housed in a permanent building like the granite Art Institute. The Art Exhibition is open daily, June 1 to November 1, from 9 a. m. to 5:30 p. m. Sundays, 12 noon to 9 p. m.

More than 1,000 masterpieces of painting and sculpture are in the exhibition. The loan exhibition is entirely different from last year's exhibition and comprises many famous works that have never before been publicly shown. The exhibition occupies the entire gallery floor of the Art Institute in 43 galleries of exhibitions of old and modern masters and to one-man shows.

American Art Stressed

The comprehensive loan exhibition of works of American masters is an artistic event long awaited and finally achieved in the World's Fair Exhibition.

[ 158 ]
River Front, by George Bellows
Pearl, by Robert Laurent
Portrait, by Antonello da Messina
Toilers of the Sea, by Rockwell Kent
Franklin D. Roosevelt, by Jo Davidson

Paul Revere's Ride, by Grant Wood
Early period, from 1705 to 1860, is represented by examples of the best works of Stuart, Sully, Trumbull, West, Copley, Earl, Harding, Savage, Waldo, Feke, Morse, Hesselius and others.

Epoch of the Eastern painters is shown by Homer, Inness, Blake-lock, Ryder, Fuller, Eakins, Sargent and Whistler.

Later comes the period of Chase, Duveneck, Carlsen, Cassatt, Twachtman, Weir, Davies, Melchers, Hawthorne, Henri, Bellows and Luks, and finally the American artists of today. Separate galleries are given to one-man shows of Whistler, Sargent, Weir, Eakins, Ryder, Cassatt, Henri, Bellows and Luks.

Two of Whistler's symphonies in white, "White Lady" and "White Girl," and "The Lange Leisen," are among his paintings. Among the old masters are a portrait by Antonello da Messina and a "Repentant Magdalen" by Veronese. A self-portrait by Sir Joshua Reynolds and "Portrait of Mrs. Butler," by Hogarth, are in the 18th century British rooms.

Etchings, Engravings, Lithographs and Woodblock Prints

Twenty-one countries, with America leading all the others, are represented in the World's Fair International Exhibition of Etchings, Engravings, Lithographs and Woodblock Prints. There are 412 master works in this collection. One room will be given exclusively to prints by James McNeill Whistler.
ORGANIZATION OF THE FAIR

The outstanding fact about the World's Fair in Chicago is that it is the work of a voluntary association of citizens representing the entire United States. The only tax-paid money used in the Exposition is in the United States Government's individual exhibit and in those of the different states exhibiting.

After several years of proposals and discussions, the exposition was organized in December, 1927, as an Illinois corporation, not for profit. Early expenses were met from membership fees of founder and sustaining members. The World's Fair Legion, composed largely of Chicago citizens, purchased more than $600,000 worth of tickets several years in advance of the opening. A bond issue of $10,000,000, supplemented by purchase of space by exhibitors and concessionaires, furnished the funds necessary in the pre-fair period.

More than 22,500,000 visitors experienced the mental stimulus and inspiration of the Exposition in its first year. In consequence, came the general demand that this immense assemblage of educational material, some of it priceless in ordinary terms, some of it the result of five years' study and labor in planning and organization, be not scattered after a mere five months' exposition to those hungry for knowledge. This general demand from the public's leaders and spokesmen had the powerful endorsement of the President of the United States.

New exhibitors in 1934 include leading corporations of America. The benefits of extensive re-mapping of the grounds and many improvements in operation are seen. The generally increased optimism and energy of the entire country are reflected in the new and greater Exposition of 1934, which opens its gates with more than half its bonded indebtedness paid.