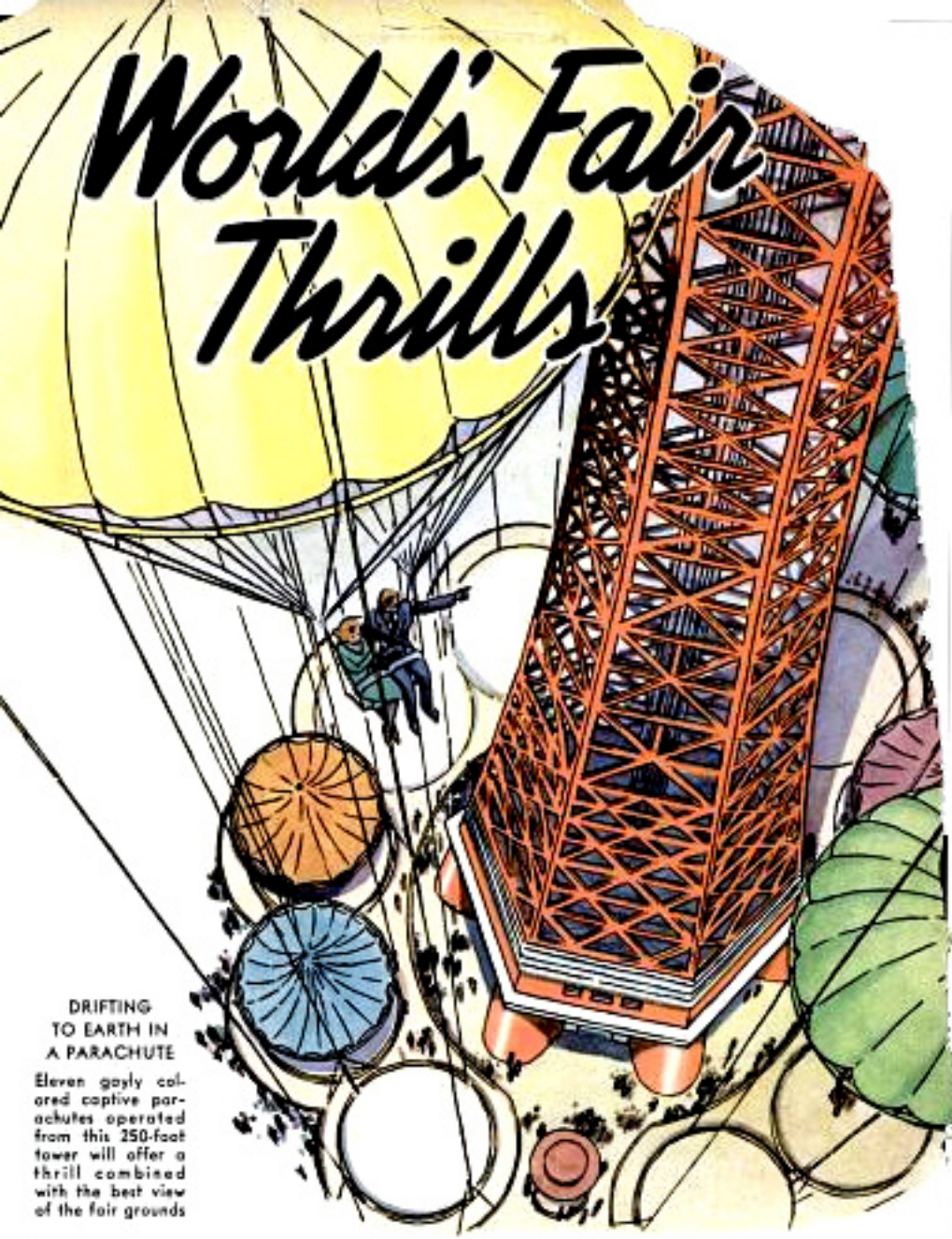
World's Fair Thrills



DRIFTING TO EARTH IN A PARACHUTE

Eleven gayly colored captive parachutes operated from this 250-foot tower will offer a thrill combined with the best view of the fair grounds

WHEN the New York World's Fair opens its gates, a few weeks hence, its exhibits of the wonders of art and industry will have to vie for visitors' attention with the attraction of a veritable city of fun-making devices. By invoking the aid of science and engineering as never before, ingenious designers have outdone themselves to create new thrills for excitement-seeking patrons, in a mile-long "Amusement Zone" that flanks the other exhibits of the exposition. A preview of their innovations, on these pages, gives a fascinating glimpse of what awaits the fair-goer

TAKING THE TURNS ON A SUMMERTIME BOBSLED RUN

Racing on rollers down an enameled runway, trains of two-passenger cars will give riders all the sensations of a real bobsled run, and then some. At scientifically engineered turns, the flying cars climb far up on the banked slope

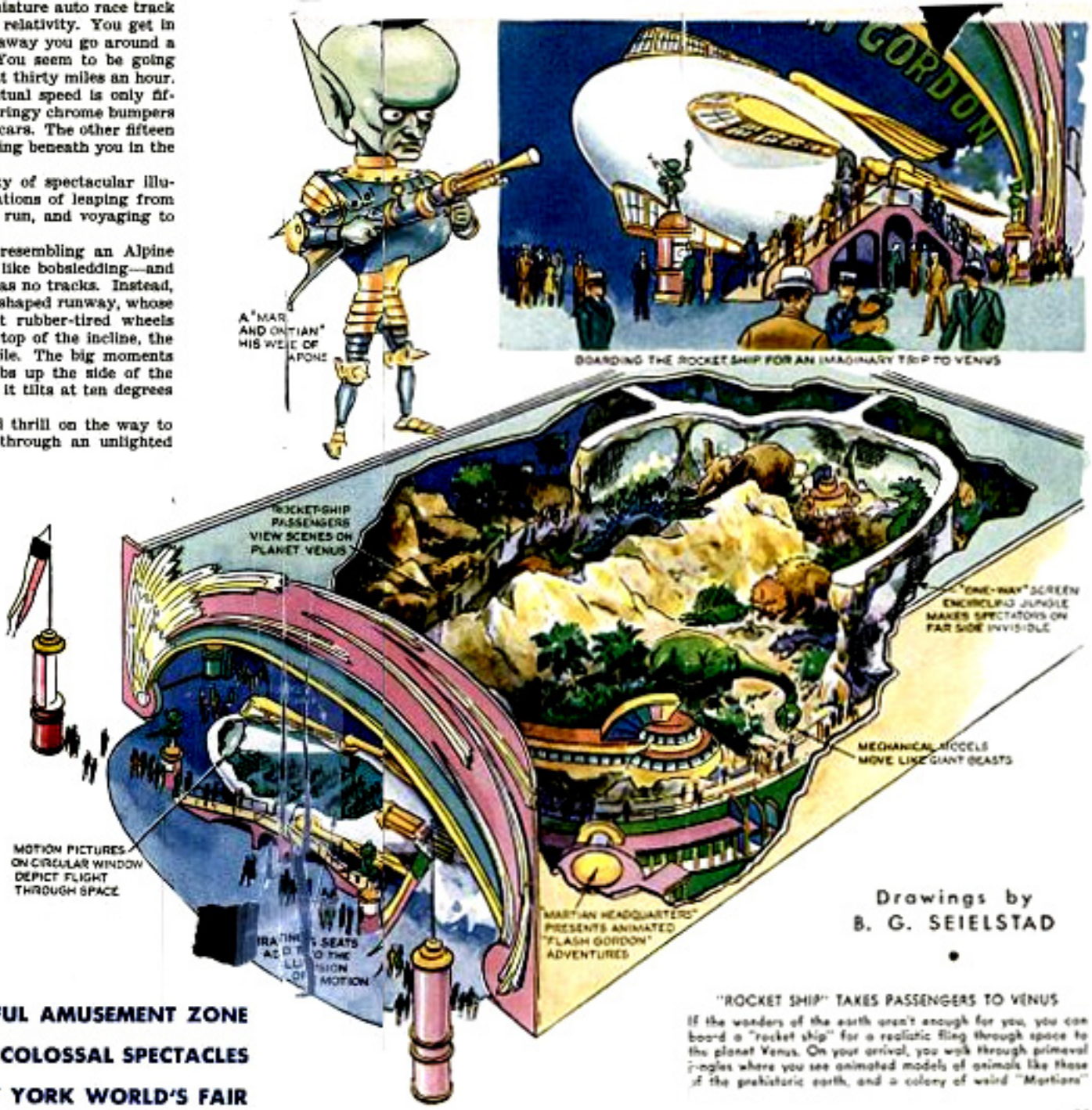
Einstein himself might enjoy a ride upon the miniature auto race track called the Drive-A-Drome—for it's all a matter of relativity. You get in a tiny gasoline-powered car, step on the gas, and away you go around a bowl, racing neck-and-neck with other drivers. You seem to be going fast, for the scenery outside the bowl flashes past at thirty miles an hour. But you needn't worry about a collision. Your actual speed is only fifteen, the limit to which the car is geared, and its springy chrome bumpers easily absorb the shock when you bump into other cars. The other fifteen miles an hour is the speed of the bowl itself, revolving beneath you in the direction you are traveling!

Scientific stunts like this have created a galaxy of spectacular illusions. You can taste for yourself the actual sensations of leaping from an airplane, flying one, careering down a bobsled run, and voyaging to the heart of Africa or to a distant planet.

On the gayly decorated midway, an entrance resembling an Alpine scene leads to the giant coaster that gives a ride like bobsledding—and then some. Unlike most roller coasters, this one has no tracks. Instead, a train of five aluminum cars races down a trough-shaped runway, whose white-enameled surface simulates snow, on silent rubber-tired wheels that swivel like casters. Towed by a chain to the top of the incline, the train begins its hair-raising coast of a quarter mile. The big moments come when the string of two-passenger cars climbs up the side of the banked runway at the turns. Rounding one curve, it tilts at ten degrees past the perpendicular!

For good measure, the riders get an unexpected thrill on the way to the top of the incline, before the coast. Hauled through an unlighted tunnel, the train suddenly stops in a pitch-dark "illusion barrel" fifty feet long and ten feet in diameter. The track starts to vibrate. Glowing spots of light, appearing on the walls of the barrel, start revolving slowly about the train. The darkness echoes with squeals and screams, for the passengers receive the terrifying impression that the cars themselves are turning over and over in space. The illusion lasts for twelve to fifteen seconds, which its inventor believes is about as long as human nature can take it, before the train proceeds. So that there will be no telltale shafts of light from projectors, the mysterious glowing spots are produced by throwing invisible ultra-violet beams upon the walls of the barrel, which are coated with fluorescent paint that glows in the rays.

For even more venturesome thrill seekers, the tallest parachuting tower in the world rises to the height of a twenty-five-story building at the southern end of the fair grounds. Like puppets on strings, eleven gayly colored captive parachutes dangle on cables from its uppermost girders. Beneath each 'chute swings a double seat, in which a pair of passengers are strapped at the ground. Then the giddy ascent begins. The riders will enjoy the finest view of the fair available to visitors, if they can keep their minds off what



Drawings by
B. G. SEIELSTAD

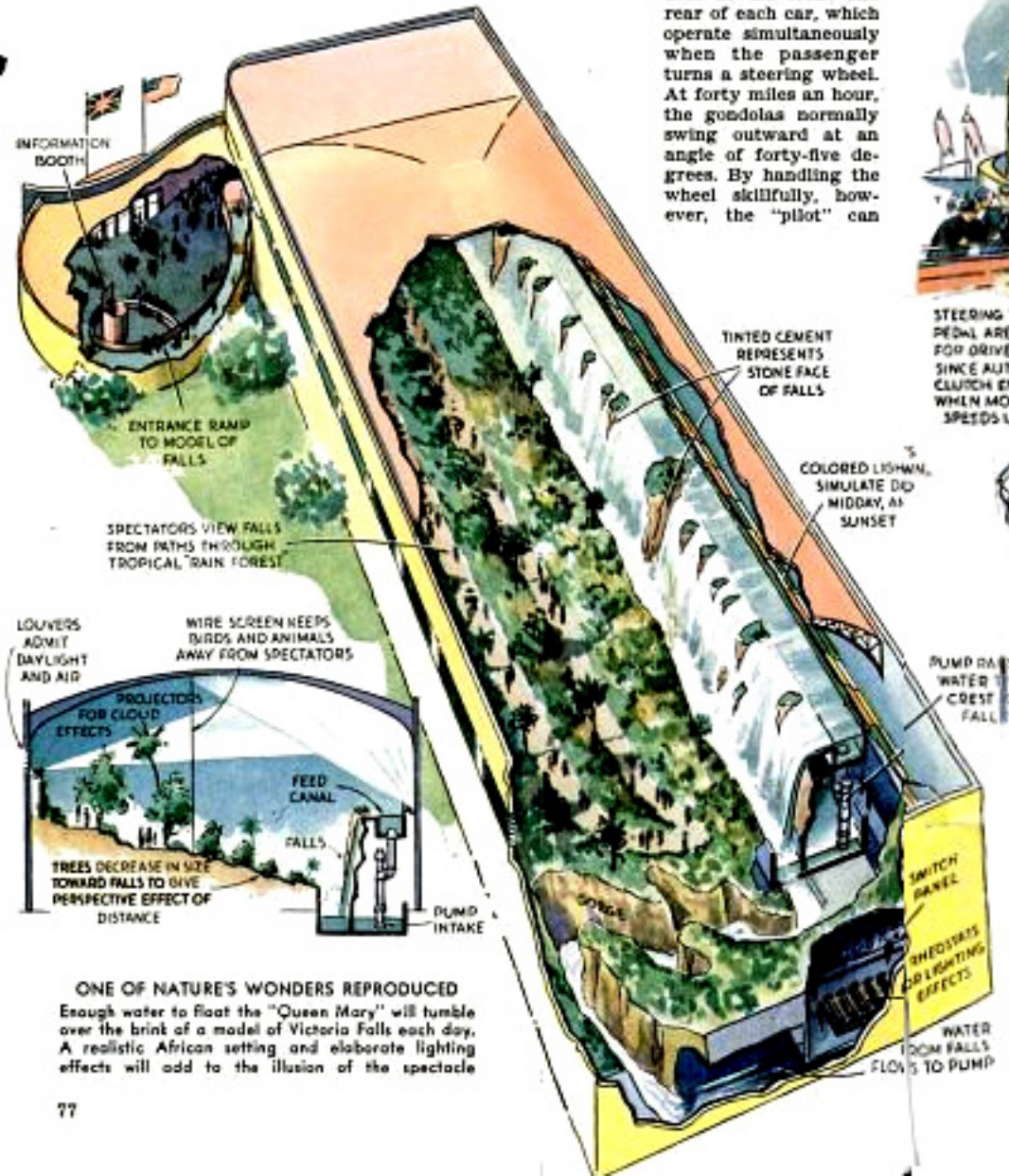
HERE IS A PREVIEW OF THE COLORFUL AMUSEMENT ZONE WHERE INGENIOUS NEW RIDES AND COLOSSAL SPECTACLES WILL AWAIT VISITORS TO THE NEW YORK WORLD'S FAIR

"ROCKET SHIP" TAKES PASSENGERS TO VENUS

If the wonders of the earth aren't enough for you, you can board a "rocket ship" for a realistic fling through space to the planet Venus. On your arrival, you walk through primeval jungles where you see animated models of animals like those of the prehistoric earth, and a colony of weird "Martians"

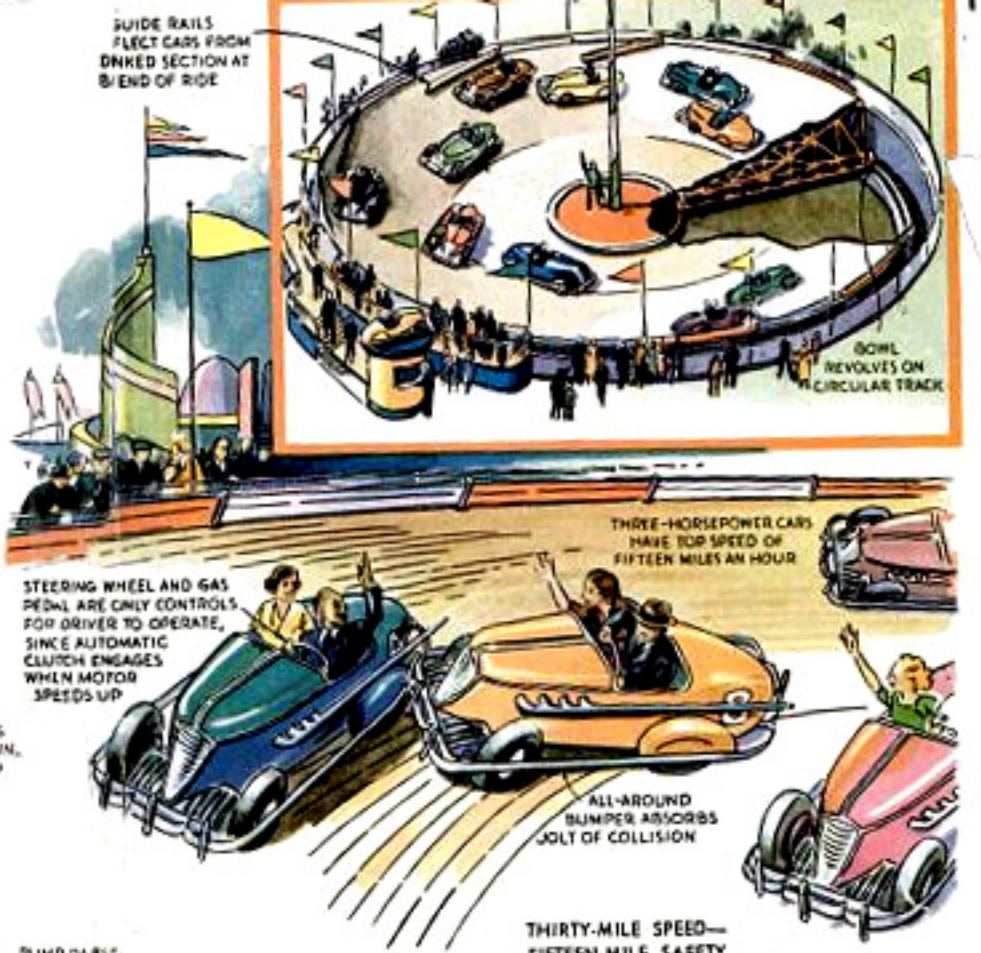
is going to hap[illegible] them next. For at the top of the 250-fo[illegible] tower, an automatic release drops parachute and passengers into thin air. Though the feeling is akin to bailing out of an airplane, the "jump" has been safeguarded against the slightest hazard. A metal ring keeps the parachute open at all times, vertical guide wires prevent it from swaying or drifting in the wind, and shock absorbers at the bottom all but eliminate the jolt of landing.

An aerial joy ride not far away provides captive "planes" for aviation enthusiasts to fly. Sixteen streamline gondolas, hung on cables from a revolving ring, circle around its supporting tower of structural steel. An innovation that distinguishes it from all other such devices is a pair of rudders at the front and rear of each car, which operate simultaneously when the passenger turns a steering wheel. At forty miles an hour, the gondolas normally swing outward at an angle of forty-five degrees. By handling the wheel skillfully, however, the "pilot" can



ONE OF NATURE'S WONDERS REPRODUCED

Enough water to float the "Queen Mary" will tumble over the brink of a model of Victoria Falls each day. A realistic African setting and elaborate lighting effects will add to the illusion of the spectacle



THIRTY-MILE SPEED—FIFTEEN-MILE SAFETY

Driven by thrill hunters, these miniature racing cars bump one another with perfect safety, because they are actually going only fifteen miles an hour on a circular track that revolves to give an impression of speed

[illegible]swoop within a few feet of the ground or [illegible]mb and bank past the perpendicular. An invisible cushion of centrifugal force [illegible]tually checks the sideward swing [illegible]t within safe limits, according [illegible]man Bartlett, the originator [illegible]Drive-A-Drome, the "bobaled" coaster, and this pilot-yourself thriller.

At the opposite end of the amusement zone from the parachute tower, a "rocket ship" that never leaves the ground, takes [illegible] travelers at a time on an imaginary journey to the planet Venus. A hidden mechanism throws the passengers backward in their seats as if the ship were actually taking off, and motion pictures projected upon a circular "window" show the fair grounds dropping away. Blasts from air jets, movies of stars passing the window, and the constantly vibrating seats enhance the dramatic effect of the supposed trip through space.

When the craft has "landed," a passenger alights from a door opposite the rocket ship's entrance to find himself in a world of fantasy. Venus is portrayed as a planet still in a primeval state, colonized by space-voyaging Martians and roamed by animals like the earth's pre-historic mon- (Continued on page 242)

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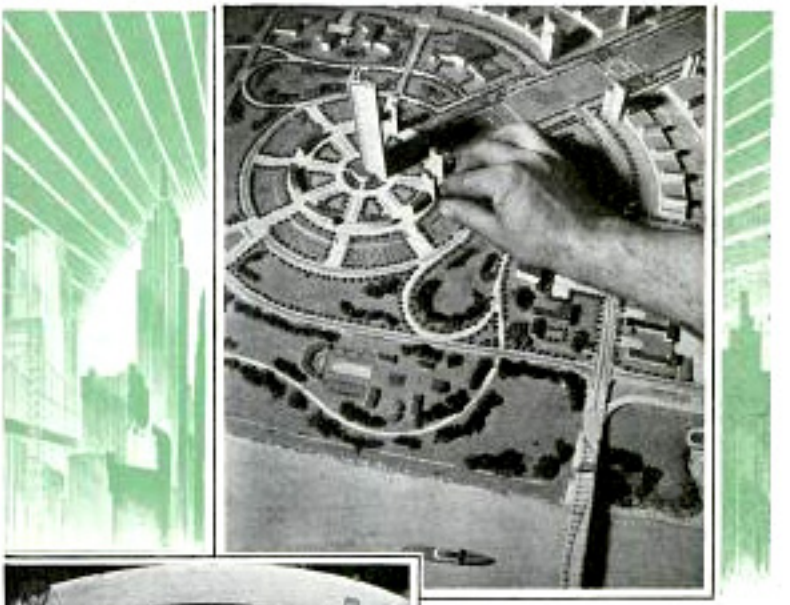
Vol. 71 MARCH, 1939 No. 3

The CITY of TOMORROW



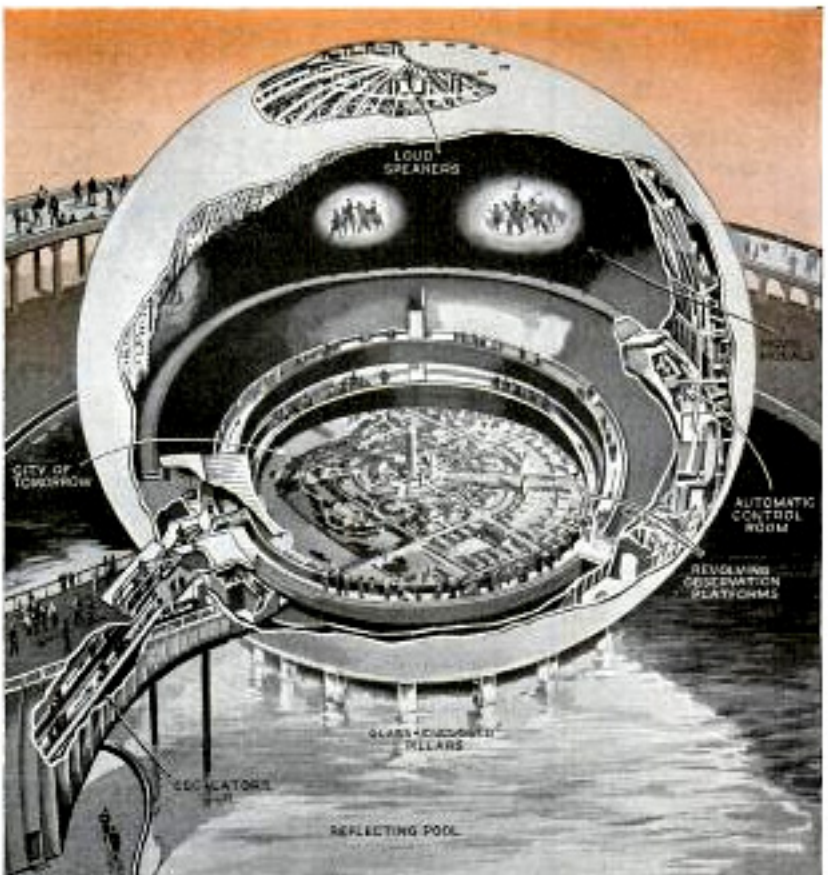
Views of model from which Democracity is being constructed in 200-foot Perisphere at New York World's Fair

By Henry Dreyfuss
Industrial Designer

As Told to Julian Leggett

THE city of tomorrow is going to stretch and take a deep breath and be a healthier and happier community because of that. It will be composed of a central town or "brain center" surrounded by satellite towns containing factories.

People who work in these factory towns are going to live close to their



Drawing of Perisphere with photo of 200-foot model of Democracity as it will appear to World's Fair visitors. Henry Dreyfuss is creator of the fair's theme exhibit, the central feature of which is Democracity, planned community of tomorrow

work. They will have a school and a movie. The resident of the satellite town will get up in the morning in a house pleasantly surrounded by green. He can walk to work and his children can walk to school in complete safety because they will never cross a vehicular street. When his wife goes to market, she can walk if she wishes, through a park, and she will shop in a park, since the stores will be situated around pleasant green belts. She might drive, but she never would run the risk of killing anyone because no one will cross the highways.

If this couple wants to hear the latest theatrical production, they will drive forty miles to the hub—to Democracity—over pleasant highways and right to the theater without a single traffic jam, because the city is planned for that very thing. They will park under the theater, see the per-

formance in air-conditioned comfort, then return home.

Their home, in the satellite town, will have a living room, bedroom and dining room facing a park, and a kitchen facing a highway. It will be painted in attractive colors—an individual house that will resemble no others on the street. The park facing the home will have a place to swim, and playgrounds for the children.

In the satellite town there will be a public market where the farmers living in the green belt will bring their produce. People will not eat concentrated food capsules; they will eat fresh green foods direct from the gardens. They won't have artificial flowers because they will get fresh ones from the garden. The family will develop good taste because they will be surrounded by good things—music, trees and other cultural advantages.

A man will be loyal to his employer because he makes this city possible. Today a man leads two lives—the life of his work and the life of his family. Tomorrow's city is going to inject a third stage, which is playtime to improve his mind and body. The man of the future will be sufficiently educated so that he won't turn off the radio when he tunes in a symphony orchestra—he is going to appreciate that music. Perhaps he will have a shop in his home where he can do wood carving or some other form of handicraft. In fact, hobby shops may be run by the city.

Top, Democracity's opera house, designed by Henry Dreyfuss, has reversible stage having open-air amphitheater in summer and interior of theater in winter. Center, model of open-air restaurant. Bottom, shopping center of Democracity, as sketched by Theodore Kautsky

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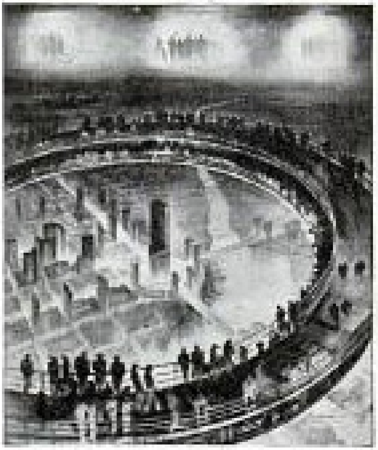
The City of Tomorrow

(Continued from page 323)

I think there is going to be something to take the place of the poolroom—a glorified Leisure House where people may have social contact with others. Most of the objectionable forms of recreation today are merely forms of escape. The idea of haste will be removed. Today we are rushing to do something. We will temper all that with leisure, therefore nervous diseases will be eliminated to a large extent. We will be happier and healthier because of our surroundings.



Artist's sketch of Perisphere's interior shows visitors on revolving platform, with Democracity below. This is a night view

Our satellite town will take care of elementary education, then the children will go to the hub to complete their schooling in a fine university, with museums, excellent libraries and other advantages near by.

New clothes, rather than new clothing, will be designed for the future. We will accept the human body and make every attempt to bring out its good points. The man will plug his suit into an electric-light socket, then set a meter at the temperature which will keep him comfortable all day, either hot or cool days. The suit will have properties to retain that temperature. Clothes will be far less expensive and more colorful. In the future city

(Continued to page 150A)

(Continued from page 148A)

you need not be exposed to inclement weather, but clothes will be provided for people who want to walk in the rain because of the health-giving properties. I think that clothes will be designed as the city is designed—for the convenience of the people who live in it and they will wear clothes in which they will be comfortable, thus creating style around comfort, convenience and health.

The green belt, or parkways, of the future will be important because the green always gives off health and because it prevents people from congregating in large crowds. There won't be many tall buildings, and thus no man-made canyons where people will be forced to work by electric lights. There will be sunlight and daylight in offices. Buildings and rooms will be painted in colors which will be restful and relieve eyestrain. We will not have windowless buildings, for we want the workers to look out of the windows and rest their eyes on the greenery of the parkways. The purpose of the window will be to let in light; it will not be opened.

Our city of the future will have no traffic lights. In order to make turns there will be clover-leaf roads and all sorts of rotary traffic. Vehicles will be moving constantly —you will never have to stop. There will be no need for a horn—no tooting horn or grinding brakes. You will run no danger of being run over. Within the satellite town will be certain streets which have free-flowing traffic for the use of town people going to and from their work. Traffic from one community to another will not pass through the shopping center of our town, thus the congested streets of today will be eliminated.

There will be only one tall building in the hub. This is a city of low buildings and our only reason for putting in a tall building is a dramatic reason—an architectural accent which points up the city. It will house the government for Democracity. It will have office space and the courts will be there.

The use of light will transform the city into another place at night. Buildings will glow with colored light and white light. Fountains will be illuminated, statues will be lighted.

Few people will live in the hub, but there

(Continued on page 153A)

(Continued from page 130A)

will be hotels and apartment houses along the edge of the city. Rooms will all face the green parks outside. People also will have country places on land not adaptable to farming and along the edge of the rivers. Too, there will be suburban towns that are completely residential.

Tomorrow's city will have a terminal center to which passenger traffic by air and by rail, bus and ship will come. Freight also would come to this terminal.

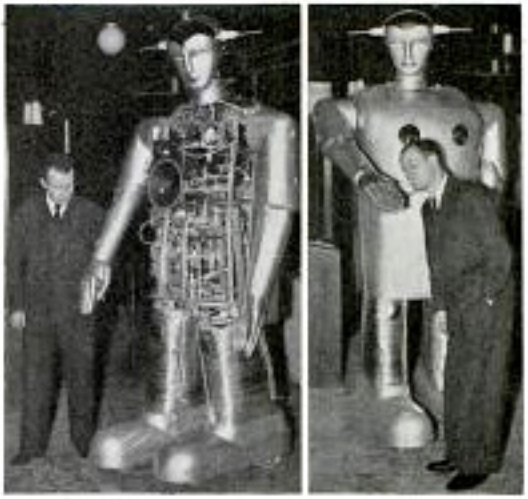
All highways will be illuminated to eliminate the glare of passing cars. There will be headlights on cars, but they won't be the brilliant kind. Also there will be the use of polarizing materials. Automobiles will have glass roofs so that their occupants may look out above, as well as to the sides, front and back. The traffic force in our city will be cut to a minimum. We see no great amount of crime in tomorrow's city because everybody is so happy, thus we will have a police force of only 100 men. Slums develop criminals, but we will have no slums. Instead of policemen we will have service monitors whose functions will be to assist the citizens rather than to correct them in the parking of cars. There will be only a small fire-fighting force because our city will be fireproof and because you will be able to extinguish flames by pushing a button that controls acid-shooting apparatus. The mailman will be replaced in the central city by automatic tubes which will speed a letter to the post office or to your office. The post office will be located over the transportation terminal.

All homes will be piped for sound and probably for motion-picture programs from a central station. Power will come from a generating plant located on the river near Democracity.

All these things will be possible through planning. To create the "City of Tomorrow," which is the theme exhibit at the 1939 New York World's Fair, has been a tremendous task. It has meant research into the projects of city planners. We have worked with experts in every phase of modern life, and incorporated the best features that each had to offer in this city. The result is a community which, if the funds were available, could be built tomorrow. This is no visionary city of the future; it is a practical suggestion of how we should be living today.

rlock, flap position indicator, gyropilot pressure gauges and instrument vacuum gauge. At the navigator's station are a seven-foot chart table, cabinet and instruments. There is an overhead turret for celestial observations and two drift sight stations under the wings. Opposite the navigator sits the radio operator, with three transmitters, three receivers and the radio direction finder. Just back of him is the flight engineer, responsible for the power plants and the calculation of power and fuel required for the flight. Facing the engineer is a panel carrying twenty-six instruments—tachometers, fuel quantity and flow indicators, oil temperature and pressure dials, air-fuel ratio indicators, a potentiometer showing temperature at two cylinder heads and cylinder bases of each engine; and, among others, an indicator which would detect presence of carbon monoxide in the heating system and shut it off automatically. In addition, the engineer has individual engine and propeller controls, mixtures and pressure regulators and hand-operated emergency fuel pumps. One dial shows up water in the fuel tanks, and there is a power-operated fire extinguishing system. An important safety factor is easy access to every motor during flight. Final authority is the master, who sits behind the navigator, correlating the crew's functions and directing the flight.

Lifelike Radio Robot Speaks, Walks and Lights Cigarette



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Left, "Sabor's" jacket is removed to show the complexity of its wireless wires. Right, the robot lighting a cigarette for its inventor

After ten years of work, a Swiss inventor has completed a lifelike robot seven feet tall and weighing 400 pounds. Controlled by radio, "Sabor," as the robot is christened, walks forward, backward or sidewise, and forms words correctly with its lips in speaking. The mechanical man will answer questions and can light its master's cigar.

Shock-Absorbing Ice Crusher Protects Glass Tumbler

Chopping ice cubes in a glass tumbler without chipping or breaking it, a five-pronged crusher absorbs all jar with aid of a bronze spring inside its wooden handle. The prongs are first embedded in the ice, then the handle containing a hammer is moved up and down gently, driving the prongs through to crush the cube. Tension of the spring placed between hammer and prongs dampens the shock and prevents injury to the glass.

Giant Mural Depicts Air View of New York

At right, Carl Botero working on Manhattan-Bronx section of giant mural water-color painting for World's Fair. Below, native the large brushes he employs; to right, fitting a section into mural

Occupying nearly 1,000 square feet at the New York World's Fair, a giant water-color mural painted by Carl Botero will show the New York metropolitan area as seen from the air. Described as the first large water-color mural ever attempted, it was executed by means of a new technique that resulted in a painting with the fidelity of a map and the fire of a stained-glass window. The artist used brushes twenty times as large as those ordinarily required by water-colorists. He painted, in eight sections, a quarter-scale color model of the mural, then produced the giant mural. The work was done with the aid of a full-scale working sketch of the map of the area, in chalk on detail paper, with land areas colored red, the river, sound and ocean areas in blue. The final work was in 114 sections which were assembled in checkerboard fashion. Each section of linen-backed water-color paper embraced an area of nine square feet, the largest size offering full brush control. The mural will be lighted with a high-intensity direct light by a row of sixty-four elliptical aluminum reflectors, each containing a 150-watt incandescent lamp. The reflectors are so focused that the most intense light falls on those brilliantly colored areas accentuated by the artist in the painting. The exhibit will be in the World's Fair building of the Consolidated Edison company of New York.