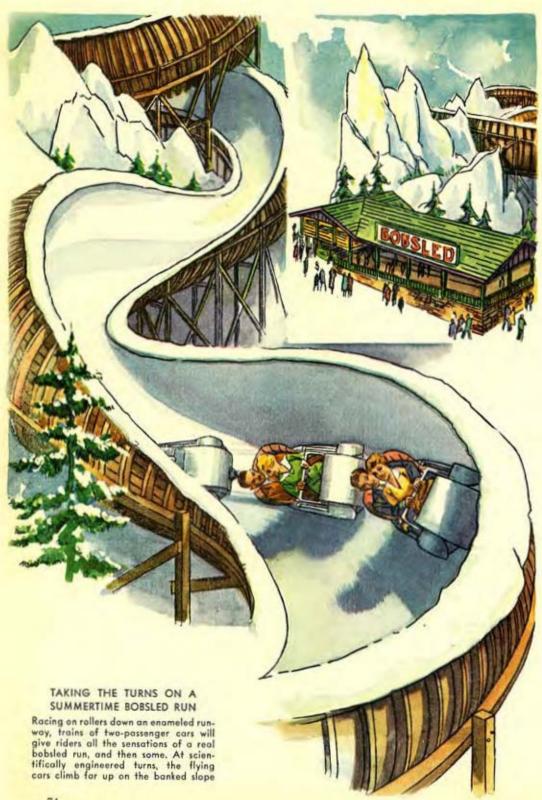


HEN the New York World's Fair opens its gates, a few weeks hence, its exhibits of the wonders of art and industry will have to vie for visitors' attention with the attraction of a veritable city of fun-making devices. By invoking the aid of science and engineering as

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.



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!

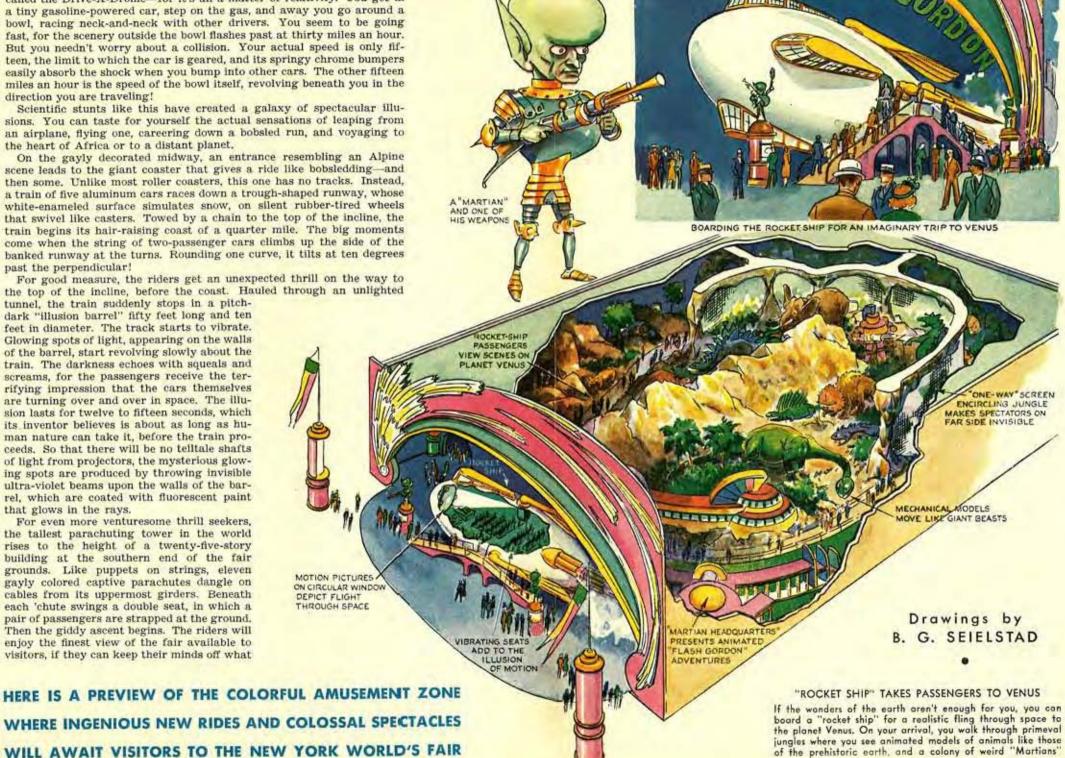
Scientific stunts like this have created a galaxy of spectacular illusions. You can taste for yourself the actual sensations of leaping from an airplane, flying one, careering down a bobsled run, and voyaging to the heart of Africa or to a distant planet,

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 pitchdark "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



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is going to happen to them next. For at the top of the 250-foot 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.

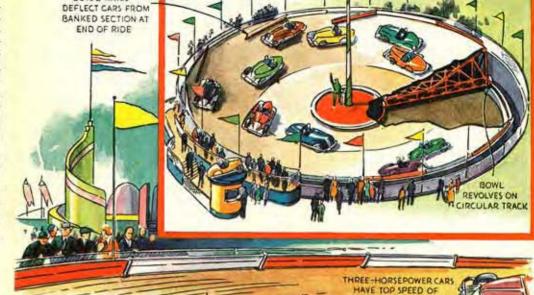
An aerial joy ride not far away provides captive "planes" for aviation enthusiasts to fly. Sixteen streamline gondolas, hung on cables from a revolving ring, circle around its supporting tower of structural steel. An innovation that distinguishes it from all other such de-

vices 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

> TINTED CEMENT REPRESENTS

> > STONE FACE

OF FALLS



STEERING WHEEL AND GAS PEDAL ARE ONLY CONTROLS FOR DRIVER TO OPERATE, SINCE AUTOMATIC CLUTCH ENGAGES WHEN MOTOR SPEEDS UP

PUMP RAISES

WATER TO

FROM FALLS

FLOWS TO PUMP

FALLS

GUIDE RAILS

COLORED LIGHTS
SIMULATE DAWN,
MIDDAY, AND
SUNSET

ALL-AROUND BUMPER ABSORBS

JOLT OF COLLISION

MAG

FIFTEEN MILES AN HOUR

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

LOUVERS WIRE SCREEN KEEPS
ADMIT BIRDS AND ANIMALS
AVAIGHT AWAY FROM SPECTATORS

FOR CLOUD
EFFECTS

FALLS
TREES DECREASE IN SIZE
TOWARD FALLS TO GIVE
PERSPECTIVE EFFECT OF
DISTANCE

ENTRANCE RAMP

TO MODEL OF

SPECTATORS VIEW FALLS

FALLS

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

woop within a few feet of the ground or limb and bank past the perpendicular. An invisible cushion of centrifugal force intomatically checks the sideward swing and keeps it within safe limits, according to Norman Bartlett, the originator of the Drive-A-Drome, the "bobsled" coaster, and this pilot-yourself thriller.

At the opposite end of the amusement sone from the parachute tower, a "rocket ship" that never leaves the ground, takes 150 travelers at a time on an imaginary journey to the planet Venus. A hidden nechanism 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 prehistoric mon- (Continued on page 242)

INFORMATION

BOOTH

World's Fair Thrills

(Continued from page 78)

sters. A pathway makes the circuit of the "Venusian jungle," which sight-seers view through a "one-way" screen. This ingenious device preserves the illusion of reality by making spectators on the far side of the path invisible. At one point in the circuit, the rocket-ship visitors come to a "Martian head-quarters." Here weirdly costumed Martians and mechanically animated models of giant beasts enact episodes from the adventures of Flash Gordon, interplanetary traveler of fiction.

if the fair-goer prefers to "see the earth first," as travel agencies some day may urge us, another exhibit depicts one of the greatest of terrestrial wonders. Taking the visitor to Southern Rhodesia in Africa, a trueto-scale model reproduces in every detail the awe-inspiring Victoria Falls, more than twice as high and nearly twice as wide as Niagara. Enough water to float the Queen Mary, especially aërated to simulate the natural appearance of foam, drops two stories from the 180foot-long brink of the miniature cataract. A spectator must shout at his nearest neighbor to make himself heard above the torrent's thunderous roar. Beautiful lighting effects vary the illumination to simulate an African dawn, midday, and sunset within a cycle of a few minutes' time. Projectors throw clouds upon a painted sky, and even the natural rainbow of the Victoria Falls will be dupli-cated. Spectators walk through tropical jungle growth, surrounded by the steamy air of the equator and by birds, animals, trees, and flowering plants imported from Africa, to approach the model. To give the final touch of realism, the trees decrease in size from the observer to the falls, so that the miniature cascade, with its illusion of perspective, looks like the real thing viewed from a great distance.

And these are just a few high lights of a medley of attractions designed to suit every taste in entertainment. If fairy-book romance appeals to you, you can stroll through an "enchanted forest," where the trees whisper to you as you pass. In case sheer speed is what gives you a kick, you can spin so fast around the rim of a bowl in an electric-powered train that your weight is tripled, your arms feel like lead if you try to raise them, and your feet seem glued to the floor! All the favorite thrillers of amusement parks, plus new ones like these, have been combined at the World's Fair to make up one of the greatest collections of fun makers and spectacles that have ever been assembled in a

single spot.