

See Undersea Life at Record Depths

Observers Study Fish New to Science.

Washington.—Throng of tourists lined the cliffs along St. George's harbor, Bermuda, as Dr. William Beebe and Otis Barton, intrepid deep-sea divers, steamed out to sea, there to climb into their steel ball, the bathysphere, and be lowered to record depths in the Atlantic off Nonsuch island, according to the National Geographic society, sponsor of the expedition.

Already the holders of the record deep-sea dive, Doctor Beebe and his companion, in their first attempt, took the bathysphere to 2,510 feet. Their prior record was 2,200 feet. In this dive Doctor Beebe reported by telephone that he saw scores of fish new to science. He dictated to his secretary above, thousands of words of description about little known denizens of "a world as strange as Mars." Barton, with the aid of a special, high-powered light, took motion pictures of weird creatures that floated and swam by the thick quartz eyes of the bathysphere.

After an hour at the record depth, during which Doctor Beebe reported the searchlight showed many new forms of life while other creatures could be observed owing to lights they carried on their bodies, the order to haul up was given.

Depths Rich in Fish Life.

Upon emerging Doctor Beebe said: "I have never seen so much material in my life, and new material, too. Much of it is entirely different from that which we observed during previous dives. It is the silliest thing in the world to attempt to describe in a few words, but we saw more fish and larger fish than during any other dive. Every dive convinces me of the futility of trying to get the true idea of deep-sea life through nets. Many deep-sea creatures are such rapid swimmers that they can easily get away from nets. One of the most amazing finds of the day was a flesh-colored fish which I observed at the 2,500-foot level. We observed schools of rare lampyctus, silver hatchet fish, and thousands of tiny squid." During the dive five photographs were taken with supersensitive plates.

The latest dive, at approximately the same spot as the former record dive, was to 3,028 feet. The bathysphere remained at that level for only five minutes—sufficient time, however, to make possible interesting scientific observations which were dictated by telephone to a stenographer on the barge from which the heavy ball was lowered.

Doctor Beebe reported that the pressure at the maximum depth was more than 1,300 pounds to the square inch, but the bathysphere, used successfully on many previous deep-sea dives, showed no leakage. It took 2 hours and 46 minutes to make the dive, 2 hours and 41 minutes of which were spent in descending and ascending.

Some Fish Carry Lights.

As in the former dive, fish and other forms of undersea life, some recognized on the previous dive, and others that were new even to Doctor Beebe and Mr. Barton, flashed into their vision as they peered through the bathysphere windows. In this dark region, nature has provided many of its creatures with lights which glitter around their bodies. Whether these lights are for illumination or for the purpose of finding food or attracting mates, is a problem which Doctor Beebe hopes to solve during his diving expeditions.

At 2,750 feet, Doctor Beebe glimpsed "an amazingly large fish" which was about 20 feet long. He said this is probably the largest living thing ever seen in the deep sea. The movements of the huge mass of flesh, he reported, could be followed in the blackness by the luminescence of the thousands of small creatures it disturbed. Fishes and other creatures in the zone near the half-mile depth, the naturalist believes, are larger, more numerous, and more brightly illuminated, than in the shallower regions.

The bathysphere, which bears the name of the National Geographic society and the New York Zoological

society, is a steel ball $4\frac{1}{2}$ feet in diameter, with a shell $1\frac{1}{2}$ inches thick. It is too small to permit the two explorers to stand erect. Despite their close quarters, they were able to take photographs, and operate searchlights and motion picture cameras. Also inside the bathysphere was apparatus for purifying the air.

While one of the objects of the expedition was to go down a half-mile, it was not solely record depth that Doctor Beebe sought. Before, between, and since the two record dives, he and his aids have made many dives to observe sea life at various depths. During one dive with only a helmet, in only 40 feet of water, Doctor Beebe had just shot a sharp-nosed puffer when a 5-foot shark swooped down on the stunned fish. Doctor Beebe fought off the shark with the iron handle of a net he held in his hand, and obtained his specimen. Later, the same day, he was interrupted in his observations by sharks, barracuda and a green moray eel, but none attacked him. On these shallow dives he collected excellent specimens of beautifully and weirdly colored fish.

College Professors Lead Others in Foiling Death

New York.—Hostlers and stable hands have a higher death rate than any other gainfully employed males between the ages of fifteen to sixty-four, according to a study conducted by the National Tuberculosis association in co-operation with the United States census bureau.

The hostlers and stablemen group had a death rate of 36.22 per 1,000. Garage workers had only 6.05. Operatives in harness and saddle factories had a death rate of 30.55. Aviators had 28.73. Laborers in chemical and similar factories had 5.13, while lawyers and judges had a rate of 7.89, physicians and surgeons 10.69, clergymen 10.33 and college presidents and professors 2.69. The average death rate of all occupations was 8.70 per thousand.

MORE RIBBONS

By CHERIE NICHOLS



Watch hair ribbons! Even the older girls are wearing them, and with flattering results. It is quite a fad to tie a wee ribbon about one's muchly curled and waved tresses, as one lounges about the home in becoming negligee—also on the beach for convenience. Growing girls, of the age of the little miss pictured, or thereabouts, are most prettily ribboned these days. The dainty party frock of sprigged organdy which this charming maiden is wearing, is set off to perfection with a girly tie of pastel ribbon which is generously bowed and streamered at the front. Little bows of ribbon on the puffed sleeves, too! The styling of this party dress is so winsome, the thought occurs that it would be an excellent model to copy in wool challis for fall or in one of those very attractive washable rayon prints which are so practical for children's wear.

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TEAR GAS DOESN'T BOTHER PARK BEARS

"They Certainly Can Take It," Says Ranger.

Yellowstone Park, Wyo.—One of the most difficult problems confronting Yellowstone park rangers is to discover a method by which the over-friendly black bear can be discouraged and driven away without permanent injury to the bear. The disappearance of hams and bacon from campers' larders, bruin's midnight forays into the pantry and kitchen of ranger stations and government mess houses—all that petty banditry makes the black bear a real problem, and the rangers are determined to do something about the matter.

Park Rangers "Gus" Wylie and Frank Childs thought they had found the solution in the use of tear gas. Three black bears, ranging in age from two to five years, were selected as subjects for the experiment.

The first bear was fired upon at a distance of 25 feet. The tiny 10-inch gun almost leaped from Wylie's hand. The gas sprayed the head and one side of the bear, but only startled him by the loud report, and he loped slowly away. Bear number two received the full charge in the face at a distance of 10 feet. At the detonation of the 12-gauge shell the bear jumped, ran a short distance, and then quite unconcernedly returned to the meat scraps he had been eating.

Finally a five-year-old mother was approached. Meat scraps enticed her within 5 feet from the spot where Wylie stood with the tear-gas gun. Childs stood by with a camera to photograph the results. The bear sniffed at her lunch and looked up inquiringly at Wylie. Boom! went the tear-gas gun while the camera clicked. But the bear did not go; she simply flinched, glanced back at her cubs, and then settled down to enjoy the meat scraps.

"Those bears certainly can take it," commented Wylie. "And to think we had first planned to try it on a grizzly!"

Blessed Events in Sheep Flock Stir Up Argument

Great Falls, Mont.—The problem of birth control is worrying the United States customs officials here. The officials wish they could establish some sort of control over the blessed events of sheep, or at least could settle this question:

"If a Canadian firm brings sheep into Montana for pasturing, intending to return them to Canada, and if those same sheep have lambs while temporarily on this side of the line, are the lambs American sheep or Canadian sheep?"

The question has been posed as a result of activities of Mormons of the Latter Day Saints church at Cardston, Alberta.

Last November, due to a pasturing shortage in Canada, the Mormons herded a large flock of sheep across the line near Browning, fed and fattened them.

That was permissible under United States customs laws, which required the posting of bond.

Everything would have been fine, but a large number of ewes saw fit to yield lambs.

Whereupon, Canadian customs officials claimed they were Canadian lambs and not subject to duty.

W. H. Bartley, collector of customs here, isn't sure but that America should get some revenue from these blessed events, and has submitted the question to Washington.

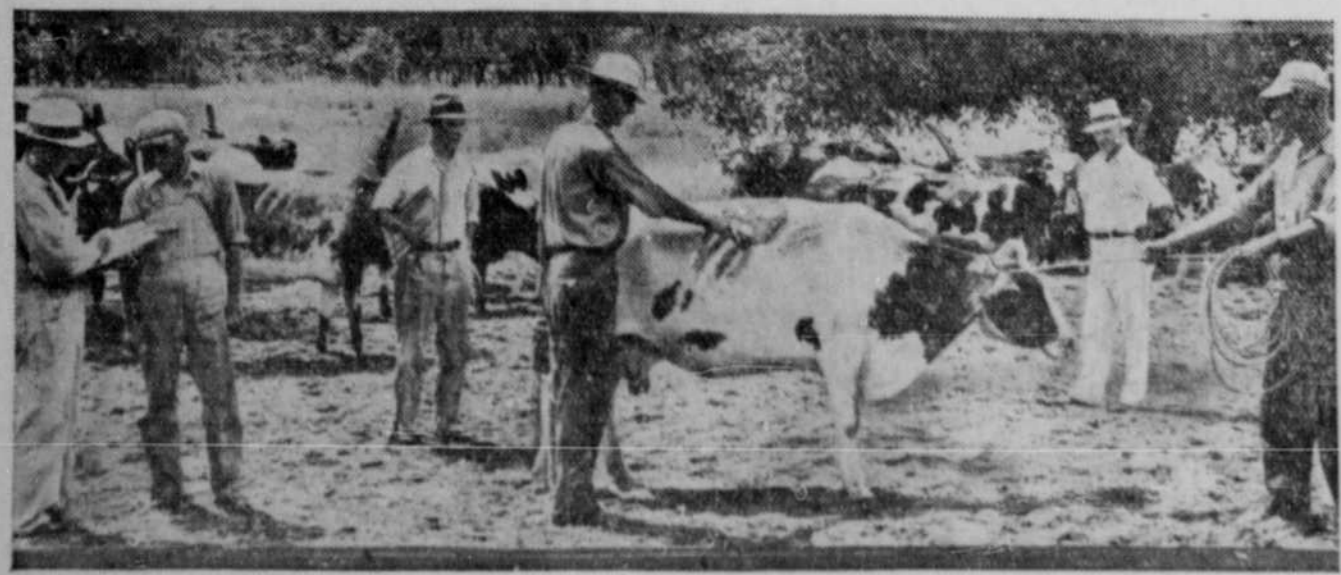
Long Line of Firsts Is Tallied by Infant

Bryan, Texas.—It's John Sidney Boriskie the First at the Frank Boriskies. For these reasons: John Sidney is the first child of his parents, the first grandchild of both his paternal and maternal grandparents, the first great-grandchild of Fritz Brandies, who has 16 grand-children, and the first child born in the recently reopened Bryan hospital.

Fitch Mother of 15 Babies

Idaho Falls, Idaho.—A fitch, small fur-bearing animal, recently delivered 15 off-spring at one time. The number was twice the customary quota for the animal and all the youngsters were larger than normal.

Putting Uncle Sam's Brands on Drouth Cattle



A federal worker with a brush and paint is putting a few daubs on Bossie's coat to show that she has been purchased by Uncle Sam. Other cattle bought in the drouth area in Kansas are near-by waiting to be checked off and marked.

SEEN and HEARD around the National Capital

By CARTER FIELD

Washington.—Germany's land division and national farming plan, perhaps the most socialistic agricultural development in recorded history, with the possible exception of Russia's, is interesting experts of our Department of Agriculture and the Agricultural Adjustment administration no end, though it has received almost no publicity in America.

With the exception of the estate of the Hindenburg family, specifically exempted from the law, every estate larger than 125 hectares—just 300 acres—must be divided into units no larger than that. All farms of that size, and ranging down to 7 hectares—16.8 acres, a hectare being about 2.4 acres—are put under strict government supervision.

The government bureau in charge decides what the farmer shall plant in any particular field. When the crop is harvested, it directs him when and where to send it to market. Eventually, though this has not arisen yet, the government will decide about farm machinery etc.

Meanwhile the farmer pays the government 1 per cent of the value of the land as determined by the government. If there was a mortgage on it, the mortgage is turned over to the government, the Rentenbank being the agency in this case. Then the farmer pays an additional 1 per cent on the value of the land, and also the interest on the mortgage. His advantage here, making up for the special charge, is that the interest rate on the mortgage is sharply reduced.

Holders of the mortgages are compensated not by cash for their investment, but by 50-year bonds, paying in some instances 3 per cent and in some 4 per cent. As there are about eight and one-half billion in mortgages, this is a financial transaction of considerable magnitude. It has not been completed yet, as the plan is just being put into operation.

May Not Sell Land

Another interesting feature of the plan is that no one may sell any land. In a way the farmers are chained to it—they and their children forever and ever. Nor shall any farm of 125 hectares or less be divided between the children. The farm goes by law to the youngest son. If there is no son whatever, then the farm may not go to the son-in-law, for the daughters are specifically barred from the inheritance of land. It passes to the nearest male relative who happens not to be a farm owner. If a seventh cousin is the nearest male relative, he happens to already own a farm, then it passes to some even more remote male relative.

The idea of the framers of the law in deciding that the farm shall pass to the youngest son, instead of the oldest, as has always been the case in British estates, for instance, was that the older sons had the most advantages, in being sent to college for professional training, or in being aided by their families in getting started in some other field of endeavor. So the land was reserved for the youngest son.

Farms smaller than 7 hectares do not come within the requisitions of the law. Incidentally, there is no doubt in governmental circles here based on their latest information from Germany, that the laws are going into effect, and that they will not only succeed in breaking up the estates, but are certain to have a trial for a fair period of time.

Information here also is that Hitler is only an incident in this particular scheme. All the information is that it would have been put into effect if Hitler had never come into power. In fact, it was well under way, as the avowed policy of many leaders, before the Hitler ascendancy.

Pepped by Sinclair

Since talking with Upton Sinclair, New Deal lieutenants are rather pepped up about the prospects of their eleven Democratic congressmen in California, and of some of the Democratic candidates in districts now held in California by Republicans.

The Socialist novelist convinced them that he has no horns, but, far more important, he convinced them by his adroit handling of questions that he is really a masterful campaigner, and has an excellent chance to win. Which, of course, is what they are interested in at the moment, not what he will really do if elected governor of the Golden Gate state.

That his election will be regarded as a mandate to go ahead with the New Deal in Washington is rather generally accepted. But that his victory, if he wins, will in all probability pull through enough Democratic candidates for the house to insure President Roosevelt the necessary votes to continue his program is even more important from a moral standpoint.

While not the most spectacular thing he is saying, by a long shot, one of the points that impressed Democratic and New Deal politicians the most here was the very subtle nature of his appeal to the conservative Californians. He has not only an appeal to the "have nots," they discovered, but to the "naives." Not to the "haves" who

are still accumulating money—if anyone is these days—but to the "haves" who are living on income from invested money.

This is the very type, especially because so many retired business men and others living on their interest and dividends have gone to California, that the conservative Republicans have been counting on to beat Sinclair. And by the same token, that the New Dealers feared would defeat him, and so drag down many Democratic congressmen to defeat.

Now they are not so certain. Things seldom are in politics, and this is a case where it is pretty hard to figure the average conservative voter's mental processes.

An Average Case

For instance, take John Smith, with an income of \$8,000 a year from investments, living in San Bernardino, or any one of the many small towns surrounding Los Angeles. At heart he is intensely conservative. He is strong for property rights. He is bitterly against any governmental action which might result in decreasing his income, taxing more heavily the corporations paying it, and so forth. So it might be reasoned at first blush, that he would be desperately opposed to Upton Sinclair or anyone like him.

But—John Smith is also a heavy taxpayer in California. He is not only paying high taxes at present to help support a million and a quarter of unemployed in California, but he sees the state debt being increased for that same purpose, which means that he and his children will have to go on paying for this support of the idle for years to come.

What will be his reaction to Sinclair's proposition: "Let me put these people to work, producing necessities which they can use and trade with each other. They will not compete with any existing business. On the contrary, they will be self-supporting and thus save the state from bankruptcy. They are no good to business now, for they have no money to buy anything except that which you give them."

It is a question. Until Sinclair arrived in Washington, most people were figuring the conservative vote would all be against Sinclair. Now they are not so sure.

Old-timers here remember a situation in Maryland just before prohibition. The liquor interests made a deal with the dregs whereby the Maryland legislature ratified the eighteenth amendment, and the dregs let up so as to permit liquor sales in Prince George's county. The liquor boys of that day were looking for an immediate advantage and not worrying about the future. There may or may not be a parallel.

Exchange Naval Views

Leading naval powers have been for some time conducting informal exchanges of views preparatory to the general naval conference expected to be held next year in view of the approaching expiration of the London naval treaty supplementary to the Washington treaty. The London treaty expires December 31, 1936, and it is planned that the whole subject of naval limitation will be reconsidered with the hope of working out a new agreement which will replace the naval limitation program adopted in Washington in 1921 and supplemented by the cruiser agreement at London in 1930.

The diverging views of Great Britain and the United States over gun callers involve the historic conflict between them over capital ships. Great Britain, with numerous bases scattered about the world, has less need of long cruising radius and therefore her policy has favored smaller fighting ships.

The United States on the contrary, having few bases, has always taken into consideration the possibility of having to cruise its fleet over long distances and has therefore favored larger craft, both in battleships and in cruisers. This conflict became so acute at the Geneva conference in 1927 that it broke up with Great Britain holding out for light cruisers and the United States insisting on heavier auxiliary craft. This difference was somewhat reconciled later at the 1930 naval conference with the United States accepting more light craft than many American naval officers had favored.

Britain's Idea

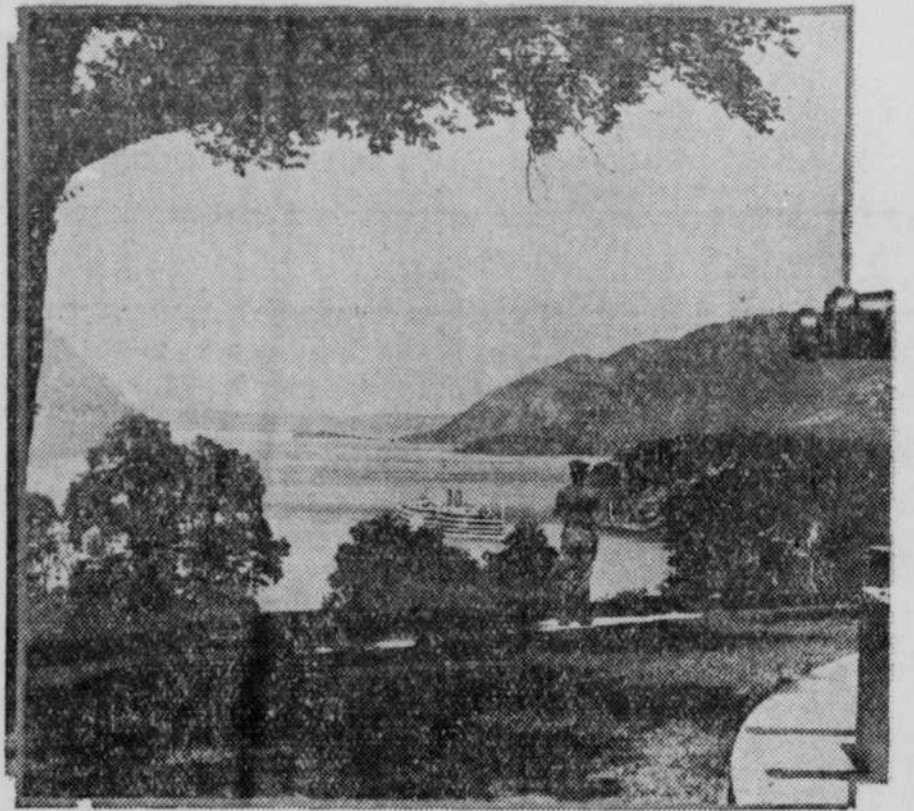
Recently Great Britain, having a preponderance of 12-inch gun battleships, suggested that in revision of the naval limitation treaty this be made the maximum caliber for the future instead of the 16-inch limit agreed upon at the Washington conference.

On the American side it was felt that this would reduce the size of battleships below the requirements of sound naval policy. The United States has always insisted upon the 35,000 ton limit for capital ships. The view is that a ship proportioned to 12-inch guns is "too small to live," as they say in the navy.

However, in the interest of reaching a preliminary agreement, the United States is now suggesting that it would be willing to meet Great Britain halfway and accept 14-inch guns, which would mean perhaps battleships of possibly 32,000 tons instead of the 35,000-ton, 16-inch gun fighters now permitted. The California and the Tennessee, which have 14-inch guns, are rated at about 33,000 tons.

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Empire State



Hudson River Vista From West Point.

Prepared by National Geographic Society, Washington, D. C.—WNU Service.

ARCHEOLOGISTS have uncovered near Morrisville, New York, a walled tunnel and well-like enclosure ten feet underground which is something of a mystery. Who dug it and for what purpose it was used, is a problem historians are attempting to solve.

New York, the Empire state, from colonial times has been a state of startling discoveries and marvelous development.

More than 11 years before Plymouth Rock and less than three years after Jamestown, a sword-girt figure in steel corselet and plumed helmet stood proudly defiant before a band of hostile Indians. The scene was the shore of a lake in a mountain-bordered valley, the time the morning of July 30, 1609.

As the redskin warriors rush toward him with bloodcurdling war cries, the intrepid adventurer is unperturbed. Not until the savages approach within bowshot does he move. Then he raises his flaring muzzled arquebus and fires. Three of the four leaden slugs find their mark. Two chiefs fall dead and one of their braves clutched at a mortal wound.

Samuel de Champlain, the great French explorer, to win the favor of the Hurons of the St. Lawrence country, thus brought war into that detectable land which we now call the state of New York.

The immediate result of that shot on the shores of Lake Champlain was victory. Though the martial Iroquois for generations had schooled themselves to face death in every form that savage cunning and barbaric cruelty could invent, still, for the moment, they could not stand up against this new, strange weapon that spoke with the voice of thunder and flashed with the tongue of lightning.

Shot Gave Regions to the English. Who can measure the full consequences of that shot!

The enmity toward the French it engendered in the breasts of the Iroquois forever sealed that land to French colonization and made the Iroquois lifelong allies of the English, who were soon to arrive.

It made northeastern New York the Belgium of the colonial wars, with the fertile Champlain valley as the immediate objective, but with all America as the ultimate prize. It raised Crown Point and Ticonderoga, and led Wolfe and Montcalm—the one to victory and the other to defeat, but both to death—to that fateful field on the Plains of Abraham before Quebec.

That shot, indeed, led to the lowering of the flag of France from the parapets of New France and to the hoisting of the Union Jack of Britain over the latitudes above the St. Lawrence.

One well might believe New York would speak French today instead of English; that there would be no United States, if Champlain had come first to the forest at the foot of the Adirondacks with peace instead of war.

Statistics seldom sparkle, but once in a while some of them tell so eloquent a story that they are actually dramatic. Their measure of New York's place in our country's economic situation discloses that the state, with only one-sixtieth of the nation's land and only one-tenth of its population, contributes five-eighths of its bank clearings; earns one-third of its taxable income; possesses one-fourth of its bank deposits; produces one-seventh of its manufactures. In scores of other ways they add to this brilliant record of human achievement.

Whoever wanders from the overpowering roar of the mighty, man-made canyons of Manhattan, up the Hudson and through the Mohawk valley to Buffalo, and thence to the inspiring thunders of the waters of Niagara, noting as he goes the mighty artery of commerce and industry that ties them together, discovers that within ten miles of this most-traveled lane in America 80 per cent of the state's population work like hewers that once roamed where they live, to serve varied needs of the nation.

What the Erie Canal Meant. New York's people have ever been ready to capitalize every advantage of geography. They built

their chief city at the crossroads between New England and the seaboard colonies farther south. Presently foreign shipping came in increasing volume, and counting houses flourished.

Then the trade of the Mississippi valley grew consequential and the several states began to battle for it. Even George Washington lent his prestige to the endeavor to hold it for Virginia.

But De Witt Clinton outwitted them all. Never had old Cato cried out more earnestly or more persistently, "Delenda est Carthago," than De Witt Clinton urged that "The Erie Canal must be built!" It was a momentous undertaking in those days to raise \$50,000,000 for a waterway.

"Clinton's Ditch" won, and presently the lion's share of the Mississippi valley trade was moving through the Mohawk country and down the Hudson, because it could float to the sea on lake and canal and river, while other states labored and tugged over the mountains in Conestoga wagons, railroad inclines, and the like.

Gone is the glory of Erie canal. The elite, who once traveled through the state atop its leisurely moving barges, now roll at high speed in modern motor cars on superhighways, rush along on world-famed express trains, or fly like birds along the sky paths, seldom giving it either glance or thought.

Never has a state possessed a clearer title to its sobriquet than the land of the Hudson, the Mohawk, and the enesee holds to its name of Empire state.

Measured by the hosts of its people, by the magnitude of its wealth, by the extent of its industry, by the splendor and variety of its scenery, or by the magnificence of its program for the public weal, New York inspiringly lives up to that title.

Really an Empire. With more than twelve and a half million people, it is indeed an empire, outranking Canada by a margin of two million and coming close to doubling Austria. It has two people for every one on the entire continent of Australia and three for every two in the Union of South Africa.

With \$37,000,000,000 of wealth, it stands ahead of half of the nations of the earth. Even the whole United States, as recently as 1870 could not match that figure.

Most assuredly in the variety and splendor of its scenery it is an empire. After rambling throughout the entire state—gridironing Long Island; checkerboarding Westchester county; zigzagging up the Hudson and down the Champlain country; crisscrossing the Adirondacks and Catskills; skirting the St. Lawrence and Lakes Ontario and Erie; peeping into every corner of the Niagara front; exploring the Genesee area; threading in and out among the interior lakes, from little Conesus to big Cayuga, and from beautiful Skaneateles to gorgeous Otsego; reveling in the many beauties of the valleys of the Mohawk, the Chemung, the Susquehanna, and the Delaware, one thinks he knows something of Empire state scenery, and is ready to say of it, as Wallace Nutting says of the Hudson, that here we find "civilization set in beauty."

The magnificence of its park system, the perfection of its parkways and boulevards, the fine quality of its schools, the care it gives its dependent population, and the plans it projects for the future, all stamp it as imperial alike in understanding, vision, and purpose.

There is no finer chapter in the history of any state than that which deals with the deep concern New York shows in the conservation of its scenic, historic, and recreational resources.

From Lake Champlain to Niagara falls, from the western end of Chautauque county, on Lake Erie, to the eastern tip of Suffolk, at Montauk Point, New York has set up a series of 60 parks of varying type and area, to provide recreation centers, to save scenic regions, and to safeguard historic shrines, and is developing them in a manner that no great community has ever surpassed and few have equaled.