
JAY FRANKLIN
the future is ours
50c
A NEW MODERN AGE BOOK
JAY FRANKLIN
the future is ours
JAY FRANKLIN
the future is ours

Hugh A. Wing 2

THE BOOK AND THE AUTHOR

PEOPLE who follow Jay Franklin's widely syndicated column and his radio programs, very often do not know of his many books, nor do most of his admirers know of his career in diplomacy, including a Consulate post in Rome and positions in our own State Department. He also took a prominent part in the Resettlement Administration projects.

This present book arose out of his extensive journeys covering the major electrical developments, represented by TVA, Bonneville and the other great dam and irrigation projects. The fact that these projects are having, and will have, a tremendous impact on the American way of life is not fully grasped at the present time, and Jay Franklin offers a brilliant and convincing picture of the future promised by electrical power and the many ramifications which electric power in government hands can offer to regions such as the Tennessee Valley.

Some people call TVA a government within a government, but the residents of the Valley pay more attention to the effect it has on their lives. The important thing is that those huge power projects have come to stay, as have the consequences of public ownership and distribution of electrical power, and the irrigation and navigation divisions which are inseparable from the dams themselves. Power is a romantic story, and its development will do more to change the course of American history than all the battles fought in the Civil War. Jay Franklin makes of this issue a dramatic challenge, filled with new and interesting aspects of a familiar theme, and if anyone can read this book without a new realization of the tremendous potentialities of our nation, he is indeed little concerned with his country's future welfare.

THE FUTURE IS OURS

JAY FRANKLIN

MODERN AGE BOOKS, INC. NEW YORK

PUBLISHED BY MODERN AGE BOOKS, INC.

60

PRINTED IN THE UNITED STATES OF AMERICA

TO THE GENERATOR

"This is no way to run a country. You must make an effort to educate the people to a new conception of political theory. Unless you have a public awakened to the perils of Do-Nothingism, you have a nation that is on the path to oblivion. The future is ours."

CONTENTS

★

FOREWORD

One of the greatest State Papers in the legislative history of the United States—the Report of the Mississippi Valley Committee of the Public Works Administration (October 1, 1934)—ranks with Hakluyt's *Voyages* as a challenge to a virile race to grasp a splendid opportunity for national aggrandizement.

The Mississippi River and the myriad streams which contribute to its system, draining two thirds of the continental United States, is the most important single fact in our national life. The Great Valley is not only the largest habitable river basin in the temperate zone but it has been settled by a mixture of vigorous peoples in a high stage of civilization, peoples with ideas and institutions, traditions and habits, developed under entirely different geographical conditions. The result is perhaps the sharpest geo-political tension in recorded history. Since the epoch when the advance of the glaciers forced men to tame fire as a condition for their survival, there has been nothing like it. We must invent the political and social equivalent of fire if we are to survive. For the numerous Government studies and reports which deal with the problems of the Great Valley can be summarized into two challenging statements:

It is not yet clear that the Mississippi Valley can support a stable agricultural civilization; and—

Unless prompt and efficacious measures are taken to prevent the present waste of soil fertility, land and water in the Valley, we have less than a hundred years of virile national existence ahead of us.

This is our "hundred years' war," a struggle against nature, including our own human nature, magnified by a vast geographical design to a scale which dwarfs the other river civilizations of the world. The creation of the Tennessee Valley Authority in 1933—in itself the most ambitious political and economic pioneering since the construction of the Great Wall of China—is only the first stage of a process which must continue for a century, until we have conquered the Great Valley for our uses or destroyed it.

The Report of the Mississippi Valley Committee, in one of its concluding sections, observes that in order to accomplish the purposes of democratic national planning in the Great Valley "Our democracy . . . needs only a wider vision, a more realistic imagination." So this book, which set out to be a study of the T.V.A., has, as the subject unfolded, become a study of the whole problem of American racial survival on this continent. I have tried to see my country steadily and see it whole and to consider the magnificent beginning in the Tennessee Valley for what it really is—not as an experiment in public ownership and state capitalism in a relatively backward region of our Southeast, but as the first conscious campaign to reshape our institutions so as to take full advantage of our unique heritage.

J. F.

THE FUTURE IS OURS

★

THE BATTLEFIELD

No OTHER continent in the world approaches the grand simplicity of North America. Here is not only the cradle for a race of Titans but also the grave of any lesser people, too weak or too stupid to meet the test of this magnificence.

Too much of Africa and South America is still steamy jungle to permit a continental civilization. Europe is but a promontory of the great Eurasian land-mass, a peninsula broken up into natural political islands, defined only by the seas and peopled by races whose stormy history bears witness to an ineradicable diversity of bloods, cultures and economies. Behind the fertile plains and rich valleys of China and India lies the great mass of Central Asia, stretching from the sky-scraping peaks of the Himalayas across the deserts to the quaking tundras of the Arctic. Russia and Siberia are politically landlocked. Australia is half desert and is remote from the main currents of human affairs.

But North America is splendid beyond belief, a continent designed as a whole and built like a fortress. Not only is it rich in coal and iron, copper and zinc, gold and silver, lead, petroleum, water power and all the other indices of human

wealth. Not only is it rich in fertile soil, in timber, grass, grain and fibers—one of the world's incredible granaries. But it is constructed on a scale which imposes unity in the economic and political life of its inhabitants, unless they are willing to subsist as did the aborigines—a handful of nomads living precariously on game and fish, supplemented by the crude cultivation of a little maize and tobacco. America calls for savages or supermen. Nothing in between will long endure.

There is nothing else like it in the entire world. A little to the west of the Atlantic seaboard the Appalachian ranges parallel the coast, running from Alabama to Labrador. Range after folded range, this mountain barrier, rich in timber and in minerals, forms one of the most baffling barriers ever confronted by the white race. It penned the European colonists along the coasts for nearly two hundred years, until the Erie Canal and later the railways found safe routes through or around the two hundred stormy miles of swirling mountains. Splendid rivers—streams which dwarfed the storied wonders of the Rhine, Seine, Tiber and Thames—flowed through the ranges to the sea; but their headwaters gave no access to the land beyond the mountains. Even today, when we have learned to take the past for granted, it is amazing to drive through this tangled country and envisage the patience and courage of the men with packhorses and oxcarts who forced the frontier and carried our people over the watersheds into the Great Valley.

Twenty-five hundred miles to the west of the Appalachians, along the Pacific seaboard, the coast is again paralleled by tre-

mendous mountain ranges stretching from Alaska to the Gulf of California and on south into Mexico: the Coastal Range, the Cascades, the Sierras, the High Rockies—a belt of toppling mountains six hundred to a thousand miles wide, rising from a great mile-high plateau that is like the roof of the world. Here again there are rivers—the Colorado, the Sacramento and the Columbia—which cut their way through the barriers to the sea; but there is no thoroughfare along these watercourses, and even today there are only three reasonably safe routes which link the Pacific seaboard with the rest of the country.

It is the rest of the country which makes America: the land between the Appalachians and the Rockies, the gigantic funnel which reaches from the Arctic Ocean to the Gulf of Mexico and to the deserts of Sonora; an empire whose climatic and economic problems are a unit and cannot be dealt with by devices appropriate to the trim hedgerows of Old England or the terraced farms along the River Rhine.

Midway in America between Canada and the United States, between East and West, lie the Great Lakes—fresh-water inland seas as large as those which made ancient history—linked to each other by navigable straits or by canals, linked with the Atlantic Ocean by canals to the St. Lawrence and the Hudson, linked to the Gulf by the Chicago River and the Mississippi. South of the Lakes lies the Great Valley of the Mississippi, fed by the Ohio, the Missouri, the Cumberland and the Tennessee, the Arkansas and the Red—to mention only major streams which feed the Father of Waters; a river basin stretch-

ing as far east as Pennsylvania, Maryland and New York, as far west as Idaho, Colorado and New Mexico. This is the greatest habitable river valley in the world, producing every variety of agricultural product from wheat and flax to cotton and sugar cane, from apples to pineapples; linking the pine to the palmetto, buffalo grass to Spanish moss, the Wyoming cowboy to the Arkansas sharecropper, the Scotch-Irish farmers of Western Pennsylvania to the Cajun fur trappers of Louisiana.

II

Here is our battleground—a fair, bounteous and boundless empire—two thousand miles from East to West, fifteen hundred miles from North to South, a natural unit and a natural fortress. Without this Valley of Mid-America, the Atlantic seaboard would be a fringe of impoverished soil, supporting a few million people, forever at the mercy of foreign seapower and bitterly divided among themselves, reproducing along their estuaries and brief valleys the intense localisms and political feuds of the Old World. Without the Great Valley, the Pacific Coast would be another weak and fragmentary civilization, controlled from Asia for its timber and its fisheries, a mollusk nation clinging to the tide-marks or seeking gold in the barren hills. So the Great Valley of the Mississippi is necessary to the coastal regions, and the Valley, being a whole, must function as a whole and compel the coasts to accept national unity. This means that unless we develop national unity, in purpose and in action, we shall have failed to meet the test of North America and will be destroyed by it, even if we ruin

its usefulness in the process. Nature can always afford to wait a few more million years, if necessary, for the Great Race which alone can safely inhabit this continent. It is simply up to us to determine whether we are fit to do the job which North America demands of those who would here establish a lasting civilization.

Thus the real battle is in our hearts and minds. It is a spiritual struggle, of which the physical manifestations are by far the easiest to achieve. It is possible, technically, to do the job: dambuilding, power development, reforestation, soil conservation, flood control, social pioneering, economic co-ordination. We can perform these things and still not exhaust our economic resources or our man power. We have the machines, the tools, the knowledge, the techniques, the men and the food and the money. The race which can build Boulder, Bonneville, Grand Coulee, the T.V.A. system and our other great public works is capable of the physical effort called for by the wise development of the continent. Even though it means a twenty-year campaign to achieve the bare outlines of our plan of operation, we have the tenacity and the courage to do it, just as we once had the tenacity and courage to conquer and people the land.

The fault is not with destiny but with ourselves that we have not yet addressed ourselves to this new phase of pioneering. We are not yet spiritually ready for it. We have never been taught to see the country as a whole or to envisage its problems and its future. It is still too vast and we are still too little. We admire the old rascals whom we charitably describe as

empire builders—men like Hill, Harriman, Carnegie, Rockefeller, the elder Morgan, men who saw the nation as a whole and who took advantage of their vision. Yet we feed ourselves on romantic illusions or hide behind weak localism. We read western novels or romances about the old slave-owning South, but we devote our waking interests to sales quotas, baseball scores, installment buying and pay checks. We dare not look far afield or cannot afford to. We are automobile migrants but wherever we go we find exactly what we have brought with us. We are entirely human and the average man has never, until recently, been able, even if he were disposed, to look much farther than the end of his nose. In common with all mankind, we learn chiefly by catastrophe—flood, drought, unemployment, pestilence, riot or war—and then we try to forget what we have learned as swiftly as possible. Yet we face the most urgent challenge to human imagination recorded in social history.

What makes it more difficult is our social inheritance. If our race has slowly evolved in America, from the Sioux Indians, the Aztecs or the Pueblos, we might have learned slowly as we grew up to the intellectual dimensions of our national environment. So it was with the Egyptians and the Nile, the Mesopotamians and their twin rivers, the Hindus and the Ganges, the Chinese and the Yangtze. Thus we might have evolved a civilization which was created from the beginning by the conditions under which it had to exist.

We were not so fortunate. Our races and our civilization evolved in Western Europe until they had reached so high a

stage of development that they could spread over the entire world. Wherever the Europeans went they carried with them institutions, laws, customs and creeds created under conditions vastly different from those which existed in North America. The first recorded breach between England and the American Colonies came in Virginia, where the Church of England was compelled to modify the requirement that communicants be buried in the consecrated ground of the churchyard. Plantations lay distant from the churches, the roads were bad and it might take two days or more to bring the corpse from the death-bed to the church. In hot weather, the corpse would begin to decompose. This canon of the Church proved impractical in North America and had to be modified. So began the long process of Americanization which is still at work.

What made matters more difficult was the fact that conditions along the Atlantic seacoast were far more like those in England or France than were the conditions which lay beyond the mountains. During the two centuries which transformed the scattered British settlements into vigorous members of a Federal Union, certain dangerous tendencies were fatally encouraged. Great importance was attached to the individual ownership of land in fee simple, to the ideal of untrammeled personal liberty, to local self-government and to State sovereignties so absolute as to lead eventually to the stupid tragedy of the Civil War.

These ideas had been nurtured by the conditions along the coasts and intensified by the political and economic struggle against absentee landlords, creditors and the British Crown.

They were fatally inadequate to solve the vast problems of social co-operation posed by the Great Valley. Daniel Boone and Colonel Bowie became our national heroes at the precise moment when we ought to have been seeking a great co-ordinator.

The result was that our people swarmed into the Mississippi Basin like a horde of devouring locusts. No Japanese beetles or Great Plains grasshoppers ever did so complete a job of devastation. For we enriched ourselves on the loot of the Valley, destroying ten times as much potential wealth as we produced. Such habits of thrift and prudence as had been hammered into us for countless generations were abandoned or forgotten. Forests were literally murdered, streams polluted, farms wasted, mines skimmed, game exterminated. Children in a candy shop would have behaved with greater self-control, for children are troubled by thoughts of parental judgment. But we had no qualms. For a full century we looted the Valley and prospered on the waste of its wealth, and still we had not begun to exhaust its resources. So we came to believe that our system—or lack of system—was the natural ideal of man and that it was the duty of nature somehow to accept our ideas of planlessness, waste and social irresponsibility.

III

This triple heritage of accumulated ideas is what stands chiefly in our path. We have the wrong idea of how North America should be used (as had the Vandals who conquered Northern Africa and reduced it from a granary to a desert) and whether

in politics or in law, in architecture or in fashion, in diet or in doctrine, we are too proud or too stubborn to alter ourselves to fit the facts.

What we need is not, as so many publicists have said, a new religion so much as it is a new application of religious principles to fit our conditions. We need, above all, a concrete goal, a Pyramid to build, something which will not only absorb our economic energies but also satisfy our social ideals. In the early days of the Hoover Depression, Mr. John Nance Garner, then Speaker of the House of Representatives, told the Democratic Caucus that if it were necessary to do so in order to relieve unemployment he favored hiring the jobless to dig a ditch from the Atlantic to the Pacific and then paying them to fill it up again. This proposal is a measure of America's lack of social imagination. Useless work invented as an excuse for the payment of relief wages has never satisfied the social aspirations of any race.

The whole history of America since the World War has been the story of a feverish search for the modern equivalent of a Pyramid. We tried Wall Street and built such monuments to commercial profit as the Empire State Building and Rockefeller Center. We tried leaf raking, shovel leaning and a wide variety of boondoggling in the early days of the New Deal's relief program. We have built roads and swimming pools, parks and schoolhouses, dams, dynamos and battleships, and still we do not seem to have discovered the essential thing which has to be done or to have defined it in terms which everybody understands, approves and supports.

This is the central weakness in our order of battle. Our ten million unemployed are our greatest asset. Their existence means that America can support ten million men outside of the normal channels of production and trade, that there are ten million men available for some great national purpose, if we can discover such a purpose.

Little aims will not do. Neither the finest of concrete roads nor the grandest of steel bridges is large enough. For there is a job to be done—the job of saving the Mississippi Valley for our grandchildren and saving our civilization for the riches which it can inherit. This calls for war on a hundred fronts but with a single purpose—in C.C.C. camps, with dams and navigation channels, levees and transmission lines, soil conservation, reforestation, education, control of disease, improved diet, better housing, thriftier farming, sounder economics, more co-operative politics, less individualism, less legalism, more courage, more tenacity, more imagination.

We, too, can build our Pyramid—the greatest the world has ever seen—in the form of a Valley civilization which works, with scientific control and human welfare at its core, a monument to the adaptive genius of our race and to its constructive realism. Such a work of art will outlast the centuries and save the continent from wreck at the hands of our haste and ignorance.

Here is the substance of the real American Dream, the Dream which we can make come true if only we can learn to master ourselves and grapple with our national destiny like men.

★

DECLARATION OF WAR

Nobody fully understands the geological and climatic balance of the Great Valley. The record of the rocks shows that it has been seabottom, time and again. As you pass through the tortured wastes of the Bad Lands or glimpse the frozen convulsions of a murdered world in the moon-scarred deserts of the Southwest or witness the gouged coulee country in the Northwest or thread the amazing tangle of the Eastern mountains, it is easy to deduce that here is a continent where gigantic forces make their playground. Whether those forces move with the slow rhythm of clock-ticks which last a thousand years, or whether such balance as had been achieved when our pioneers topped the Eastern watersheds resembled the avalanche poised to topple at the sound of a human voice, it is too early to tell. Certainly we shall never live to see the lines of smoking volcanoes rear themselves in furious bivouac along the Blue Ridge, we shall not see the ocean flowing over what is now Pennsylvania or the glaciers butting south into Missouri. But our grandchildren may live to see the desert beat back our frontiers and thrust our people from the immense granary which they have so roughly exploited.

As a matter of fact, in the Southwest are vestiges which tell that an earlier race, far advanced in Stone Age culture, builders of dead cities in the lifeless cliffs, once developed a flourishing agriculture in what is now the desert. On the fringe of what is now called the Dust Bowl there are lines of dunes which suggest an earlier catastrophe of wind and drought, finally halted after it had swept across the fertile plains. Certainly, when the white settlers crossed the hundredth meridian and turned under the spring sod of the buffalo range with the sharp plow, the Indians were alarmed. Warned by some dim ancestral tradition of remote catastrophe, they protested that the land was "wrong side up!"

It is also certain that in North America the weather cycle comes with a violence that mocks the gentler variations of Europe. From drought to drought it is twenty-one years, a human generation between flood and flood. Ten to eleven years for the shorter cycle, twenty-one for the greater. Here there are only the frailest barriers—grass, trees and swampland—to resist the fierce climatic tides which surge between the tropics and the Pole and which test all weakness. The whole continent is steadily blowing from West to East, so that geological strata that are exposed in the West, are hundreds of feet underground in the East. It is also probable that North America is passing through an inter-glacial period in which the lakes and the rivers and the underground waters are doomed to dwindle. It is also probable that this swing may be arrested. The Northmen who once settled Greenland and the New England coasts were driven away by a return of the centuries of frost about a thou-

sand years ago. We are perhaps midway in a great climatic shift. In Roman times the cherries grew as far north as Scotland. The Dark Ages came when the cold drove the hairy human pack down from the North into the warmer lands of the olive and the vine. Another few centuries and North America may become once more a bitter, frost-bound continent whose brief summers will restrict agriculture to the belt of semi-tropical land around the Gulf. These are speculative matters, to be sure, but they serve to emphasize the immense extent and the incalculable thrust of the forces which govern the Great Valley in which we expatriated Europeans are striving to create an enduring civilization for ourselves and our children.

It was the Valley which first declared war upon us, in retaliation against our ignorant and reckless abuse of its resources. First came the drought—in 1934 and 1935 and again in 1936—killing the cattle, burning the crops (and have you felt those hot winds from Texas which brown the growing green like a blowtorch?), drying the wells and watercourses, until the whole West tottered on the edge of complete catastrophe. Then came the dust storms. It blew a little in 1934. In 1935 and 1936 it blew harder. The skies of the Eastern cities were darkened, and fertile dust from Western farms powdered the decks of liners far out in the Atlantic Ocean. (I used to foretell the weather in Washington by the dust; three days after it blew in Kansas, the particles high in the stratosphere shut off enough solar energy to make the temperature drop on the Eastern coast.) Farmers lost their land by thousands, discouraged or bankrupted by the hopeless struggle against debt, dust and drought, and the

tragic trek to California began to depopulate the Great Plains. A few years later this same area was producing bumper-crops, indicating the need for a type of agriculture which could take advantage of the weather cycle instead of being sacrificed to the lean and bitter years of waiting for the rains.

This was all very dramatic and exciting—with special trains running the bellowing cattle southeastward in search of grass, with beef being butchered in desperate haste and canned for the unemployed, with corn coming in from the Argentine and special regimes being set up for the relief and rationing of the afflicted population. The people of the Great Valley were painfully learning that Valley's first and great commandment, "Thou shalt co-operate!" and were forgetting the dream of untrammeled individualism and rugged independence. It was dramatic, but it served chiefly to advertise the steady, insidious waste of our soil through "normal" agricultural methods; the loss through leaching and sheet erosion, the loss through gullying and through soil-depleting crops. This loss is conservatively estimated at about $400,000,000 a year, or about one billion five hundred million man-hours of common labor.

II

After the dust came the floods: in 1936, 1937 and 1938. Here, too, human factors reinforced the merciless geography of North America. In the primitive balance, the flow of waters down the Great Valley was controlled by the thick virgin forests on the watersheds and by the grass of the high plains and the prairies. When floods came, as they did in response to the natu-

ral cycle of the weather, they overflowed harmlessly in the swampy lands of the lower valley. No great damage was done to the basic resources of the region by the rushing waters.

We came and hacked down the forests. It was almost a social duty to get rid of the trees which encumbered the promised lands which we sought to occupy. We wanted land for crops, not for lumber, and the trees were regarded almost as noxious weeds to be rooted out. We cut them down and we burned them down—hardwood, softwood, every variety of tree. Our Teutonic ancestors had once known better. When the Normans came to England they reversed the process of deforestation, which had begun when the Roman legions marched against the Druid groves, and planted the New Forest. In England, France and Italy forestry was a royal concern and wood was a valuable crop. When Englishmen crossed the Atlantic to mark down masts for their warships a false start was given to the seaboard Americans. For the forests were not only a danger which sheltered Indians and wild beasts, but they were boundless as the sea and commanded a foreign market. By the time the main job of pioneering was completed, the sound of the ax and the whine of the sawmill were the characteristic leitmotif of American civilization. We hacked down the trees in Pennsylvania, West Virginia, Tennessee, Kentucky, Ohio, Illinois, Michigan, Wisconsin and Minnesota, as though they would last forever, as though they were simply a resource of wealth to be exploited.

Whether or not this was a prudent use of our lumber reserves is beside the point. Surely it was an imprudent and reckless

procedure to remove the forest protection of the headwaters of our great river system. At the same time, the extensive cultivation of row-crops—particularly corn and cotton—took equal toll of the covering sod which served as a sponge for the rains and melting snow. We abandoned the old-fashioned thrift of our peasant ancestors, worked farms to death, moved on and efficiently butchered new tracts of land. The streams and rivers of the entire South have run red and muddy for generations, as the rains wash over the gullied lands. Millions of acres have been ruined for farming, millions more have been damaged by such nonchalant incompetence, and only a small beginning has been made at checking the practices which are wrecking our soil. The choked and silted streams rise higher with every flood, as the water runs off more rapidly and struggles to the Gulf along the shallow river beds. Swamps have been drained, with injury to the wild life which is one of our great resources, and thus these natural equalizers of water run-off have also been eliminated.

The crowning act of folly was to build our great cities at the edge of the rivers, thus rendering them liable to floods: Cincinnati and Pittsburgh, Paducah and Cairo, St. Louis and Memphis, Vicksburg, Baton Rouge and New Orleans, Kansas City and Chattanooga, Minneapolis and St. Paul. Our people crowded eagerly onto the rich bottom lands along the river courses. Our cities and towns, our highways and railroads, the whole complex nexus of civilized communications were placed in pawn to a river system which our uneconomic practices were converting into a playground for gigantic floods.

The floods came, in '36, '37 and '38, as they had been coming since the dawn of time. Hundreds of thousands of people were rendered homeless, millions of dollars of damage was done to farms and houses. The levees with which we had paralleled the Mississippi from the Gulf to Illinois were raised higher and higher. Even in Connecticut the city of Hartford had to take refuge behind a system of dykes. All over the country the cry went up for Federal flood control. (Thrifty New England alone tried to block it, if flood control meant Federal control of power.) Dams and projects for dams blossomed all over the map, for after the 1937 flood the T.V.A. engineers proved that their storage system, though incomplete, had taken inches off the flood crest at Cairo, Illinois, thus saving the city. The new technique in storing flood-waters and correcting the river's flow by expert controls had been vindicated.

Once again the Great Valley had forced home its doctrine: Unite or perish! For a flood starting in West Virginia and Pennsylvania could affect the lives and property of people in Mississippi and Louisiana. What happened in Tennessee could hurt Illinois or Arkansas. The flood-waters of the Big Muddy, roaring down through the Dakotas, could injure St. Louis or New Orleans. Whether we liked it or not, the Great Valley was a demonstrable unit and must be faced co-operatively or not at all. Dams and levees are expensive, far beyond the financial resources of the farmers and planters along the banks downstream. And furthermore, by no stretch of "States Rights" could Arkansas, for example, require the State of North Carolina to build a big flood control dam at Hiwassee. The lesson

of the floods, following the lesson of the drought, taught Americans that they are here only on sufferance, that they must adapt themselves to the Valley or be destroyed.

III

Final proof that the American nation has taken the wrong approach to its fundamental problem is supplied by the actual condition of the people who have settled in the Great Valley.

If they were making their fortunes, if they were making a good living, if they were simply secure, satisfied and prosperous, all the arguments and facts could not convince them that their ways were mistaken. But it is an old economic—as well as a moral—law that death is the wages of sin. Whenever you find a vigorous and intelligent race sickening in the midst of abundance, you can say with conviction that they have committed some economic or social crime. If we grazed our cattle on rich pasture and found them dying, we would seek for the weed which was poisoning them. So it is with the human erosion in the Mississippi Basin.

In the northern section of the Valley we find decent and efficient farmers going broke or being forced into tenancy by the banks and insurance companies which hold their paper. In good years, as well as in times of scanty harvests, this is true. When an efficient farmer on good soil is economically ruined by producing a good crop, the social system in which he lives is clearly at fault. Further to the west, in the Dust Bowl region, self-reliant, old-stock American farm families have been forced off the land, forced to take the road with the "Okes" and the

"Arks" to the Vigilante Never-Never Land of California, to join the tragic army of fruit-tramps. Their plight is clearly traceable to an economic system which encourages individual ownership of lands which can raise a profitable crop only once in seven years. As the climatic tides rage over the Great Plains, some form of modified collectivism is surely indicated as a substitute for the present system.

Further south, the sharecropper and tenant problem highlights the ghastly paradox of America's miscalculation. Elsewhere, social conditions are generally worse on the worst lands. But in the rich lands of the Mississippi Delta, the most fertile soil in America supports the most degraded population. Year after year, tens of thousands of farmers—white and colored—are forced from ownership into tenancy. Year after year, the tractor, the combine, the cotton-picking machine, the bank and the land companies are forcing thousands more from tenancy into day labor. When the Rust Brothers' cotton-picker becomes a success or when the Du Pont product "nylon"—made from coal, air and water—has supplanted silk for most industrial purposes, the South will have at least five million people who are economically superfluous under the present social order and who must be turned loose to starve or emigrate.

All through the 1920's the Valley was taking its toll of the human beings who lived there. They migrated to the North under Coolidge and Hoover, as they moved westward under Roosevelt, to escape the planters and the bloodhounds and the streamlined slavocracy of the Pat Harrisons and the Jack Garners. Cotton ceased to be King with the Civil War and became

an Old Man of the Sea, to serve whom the entire South was conscripted by Northern tariffs. The black slaves were better off before Appomattox, for then at least they had the cash value of good working-stock. Now that they are "free"—and masterless—they suggest the answer of Samuel Butler, when asked why he did not marry: "Why keep a cow when you can buy milk?"

Everywhere a rich, moist soil under a warm sun produces an abundance of human necessities—corn, cotton, rice, wheat, cane, fruits and vegetables. Everywhere the men and women who spend their lives producing these indispensable products are in miserable insecurity, living in a society held together by night riders, vigilantes, Ku Kluxers, deputy sheriffs, corporation lawyers, bank collectors, apathy and inertia. In 1931 and 1932 the Valley came close to revolution, with farmers looting towns, threatening to lynch sheriffs and judges, and with desperate men everywhere ready to resist a system which denied the first law of life.

Even where it is not made dramatic by "penny-auctions" and flivver migrations, this human erosion haunts the Valley. Men and women working under a cloud of hopeless debt, cultivating lands unfit for farming, lands where years of overcropping have robbed the soil's fertility, working against uneconomic tariffs, insane freight rates, absentee ownership and Eastern creditors—these are all victims of an unwise political economy, of an immature social philosophy.

Here is the final symbol in the equation. A vigorous race in a growing economy could confront the dust and the floods, if

the reward were plenty and individual security for the few years needed to raise a human family. Men have faced worse hardships than these—and their women have gone bravely with them—to found new communities and to create homes. But our faulty approach to the riches of the Valley is actually destroying the structure of society, is smashing homes, scattering families, ruining the industrious and despoiling the thrifty right under our eyes. Something is desperately wrong when the granary of North America rewards its farmers with destitution and when our great dream of the Western Commonwealth turns to such bitter ashes. Once again the Valley is telling us, in the only language we can understand, the same message: Co-operate or die!

IV

We have barely twenty years of grace in which to meet this calm challenge, twenty years in which we can still do the things which will give us a better than even chance to survive the twentieth century as a great nation.

They are not things which can or will be done by private business, spurred by the desire for sure and quick individual profits. To fence our Western pastures with a shelter-belt of trees a hundred miles wide and a thousand miles long is not calculated to earn a profit for individual bankers. To build the levees and the dams, to dredge the river channels, to install check-dams in the gullies, to encourage contour-plowing and diversification of crops is no individual's business. It is everybody's business. Since the Great Valley includes parts of thirty-

two of our forty-eight states, its control cannot possibly be exercised by any agency less powerful than the National Government and will certainly call for an increase of that Government's powers.

In a very general way, we already know some of the things which should be done. In the Upper Mississippi Valley, we are dredging a channel nine feet deep to St. Paul and Minneapolis and are considering a number of water-storage projects—at Red Lake, Boise de Sioux, Mouse River, Lac Qui Parle and Whetstone River. In the Ohio River Valley there are many plans and possibilities, with a potential power development on the Kanawha and Cheat Rivers of about 6,500,000,000 kilowatt hours a year. In the Missouri Basin alone there are eleven major power projects, nineteen irrigation projects and thirteen flood-control projects awaiting Federal investment. In the Southwest and on the Lower Mississippi there are many "first things" which must be done before we can guess the extent to which the river can be brought under measurable control.

We also know that the only direct economic resource which can be developed as an incident to these measures of self-preservation is water power. This power belongs to the Government, that is to say, to all of the American people. It does not belong to the private utility companies or to potential investors. Whether used or not, this power exists in the inevitable fall of water, and only the Government is in a position to develop it. The Mississippi Valley Committee calculated that there are 16,000,000 kilowatts of hydro power in the Mississippi Basin, of which not more than 2,000,000 kilowatts have been devel-

oped. Not only can power from Government projects reduce the cost of river control to the nation's taxpayers, but it can serve the growing economic needs of the people in the Valley. Only an economic illiterate or a moral buffoon would suggest that it is the duty of Government to waste or alienate this wealth rather than permit its use in the public interest.

There are urgent problems of disease and sanitation, of forestation and recreation, of farm practice and the water-table, of irrigation and soil erosion, problems of flood control and navigation, problems of wild life, problems of low water and high water. Merely to list the chief headings of the problem is to indicate that we have been launched on a course of self-education which will end by creating a lordly society in Mid-America or by our national downfall.

One thing above all else is clear. The job calls for planning—not for the blueprints of a doctrinaire but for the logistics of a military campaign. That is to say, the job calls for flexibility, determination, organization, backing and morale, under trained leadership. We cannot tell in advance exactly where the Valley is leading our society. We cannot state at any particular time where it will be necessary to concentrate our efforts. There were dangerous floods on the Lower Mississippi in 1927 and again in 1937. In 1914 and in 1934 there were droughts which killed the cattle and sheep on the Western ranges, dust storms which blew the wheat lands to grimy glory. There were economic blizzards and social earthquakes in 1917 and in 1929. The problem has never been the same from one year to the next. The only thing which has been constant has been the necessity

for a growing co-operative control and national investment in the Valley. To the Delaware farmer in his snug little agricultural cove, it seems unnatural that Government should control farm acreage or restrict the size of certain crops. In the Great Valley these practices make the difference between welfare and collapse. To the self-reliant New Englander (living on money invested in the West) it may look like un-American paternalism when the Government tries to halt the growth of farm tenancy. In the South and West, tenancy is not only a factor of social unrest, it also leads to a dangerous abuse of the land which must be checked. To the theoretical individualist in lush Pennsylvania, the growth of co-operative farming under national auspices seems akin to communism. Yet in many parts of the Great Valley, the collective farm—or plantation—is the only social and economic unit which makes sense. To the cautious Wall Street investor (with his money secure in tariff-protected industries, themselves the product of Federally fostered co-operation) it looks as though the man who bought a farm on the Great Plains or whose grandfather lost the Civil War ought to lose his money and needs no help from Washington. But when the hacking down of forests or the destruction of the sod helps spread catastrophe through sixteen states, Washington cannot afford to remain indifferent to the actions of its citizens.

The Valley has blown out on us, flooded us, driven us out and ruined us by thousands. Now we realize that we have a generation in which to work out our salvation. What we accomplish between now and 1950 will determine whether we

are fit to survive amid the grandeur of North America. What we do between now and 1960 will determine whether we shall survive. It will cost money. It will take time, thought and labor. Above all, it will demand co-operation and co-ordinated effort on a scale never witnessed in America outside of war. To some timid souls, this prospect is infinitely depressing. But to men and women of spirit and courage, it is the most heartening thing in America. The Great Valley has given us a new imperative to replace the old frontier. It gives us a job to be done and offers us the hope that, in doing that job, we may find our national soul.

★

THE EASTERN FRONT

TENNESSEE is the strategic key to the United States. If you want to conquer the United States and hold this country in permanent subjection, you must first conquer and hold the Tennessee Valley. From the vantage point of the highland, you control the Ohio, the Missouri and the Mississippi Rivers. A 400-mile radius from Nashville includes the great industrial cities of the Midwestern and Atlantic States; it reaches the Great Lakes, the seacoast, the trans-Mississippi region and the Southern Piedmont. Four hundred miles is less than three hours' flight for a fast bombing plane, is little more than a long day's drive for an automobile. He who holds Tennessee controls the Great Valley which is the heart and soul of North America.

This has been true from the dawn of our colonial history. The three routes into the Great Valley from the Atlantic seaboard are: up the St. Lawrence Valley and along the Lakes to the headwaters of the northern river basins; up the Mississippi Valley from New Orleans and the Gulf of Mexico; overland, across the Appalachian highlands to the mountain buttresses which stretch nearly as far west as Memphis on the Great River itself.

THE EASTERN FRONT

At first the French held the northern route and the Spaniards the southern. The French, with their Indian allies, held back the far more numerous English colonists for a hundred and fifty years. Operating behind the mountain walls, these scanty forces could spread terror and confusion from the Deerfield Valley in Massachusetts down to Georgia. George Washington and General Braddock alike failed to pierce the lightly held French line west of the Alleghenies. But the northern route is too long and too vulnerable a line of communications for any permanent army of occupation to maintain in mid-America. It was broken at last by General Wolfe at Quebec and the energies of the seaboard settlers were released for the conquest of the continent.

The Spaniards held out for fifty years longer than the French, but the weight of human destiny and military geography was against them. Their ports, plantations and trading posts in Louisiana and the Floridas were at the mercy of the American frontiersmen who had pierced the mountains and established states in Tennessee and Kentucky even before the purchase of Louisiana in 1803. Andrew Jackson, in a long series of campaigns from this Tennessee base, completed the conquest of the American Southeast from the Indians, British and Spaniards. His national fame can be understood only in the light of this fact: that he was the first American military statesman to exploit the strategic influence of the Tennessee region. No sooner had the conquest been completed than John C. Calhoun, who was then Monroe's Secretary of War, recognized its sig-

nificance by designating the Tennessee region as our No. 1 military defense area.

When John Brown of Osawatomi made his raid on the U.S. Arsenal at Harper's Ferry on the eve of the Civil War, there was sound military sense behind his mad political scheme. He planned to arm the runaway slaves from Southern plantations and use the Southern Highlands as a base from which to dominate the South. (Interestingly enough, at the end of the Civil War General Lee considered a similar scheme for the Confederate troops to take to the mountains and continue a guerilla warfare indefinitely. The lenient terms of Appomattox reflected, in part, the fears of the Northern generals that a desperate South might be forced into this dangerous course of action.) At any rate, it is history that until the Northern Armies had conquered Tennessee, the Civil War was a stalemate. Shiloh, Chickamauga and the battles at Chattanooga and Nashville were part of a grand strategy which left the Union forces in control of Tennessee and released Sherman's Army like an avalanche upon Georgia and the Carolinas. By the acid test of military experience, it has been proven that the genius of Robert E. Lee and Stonewall Jackson—even when operating, as did the French and Indians, behind the sheltering ridges of the Appalachians—was nullified by Union Armies operating in Tennessee, hundreds of miles away from The Wilderness, Bull Run, Cold Harbor, Fredericksburg and Antietam. The high tide of the Confederacy itself—the Gettysburg campaign—was a brilliant attempt to use the highland base against the North and to break the Union line of rail communications at Harris-

burg and Lake Erie. And the Northern generals who won the final victory in the Civil War—Grant, Sherman and Thomas—were men who had first fought and conquered Tennessee and thereby learned the grand strategy of North America.

Since 1865 the region of the Tennessee has lain forgotten and its basic importance to the nation has been obscured by its relative political weakness in the Union. When Lincoln's wise scheme for Southern reconstruction by the political encouragement of the Southern mountaineers (from whom he himself had sprung) to form free governments had been nullified and twisted by the vindictive folly of the Republican radicals, a Solid South became politically inevitable. This prevented the development of a powerful political strategy which even today is capable of regenerating the South. On the eve of the Civil War, both Ohio and South Carolina had been rivals in an effort to tap the Tennessee region by railroad. When the Republican military victory was translated into its unwritten economic clauses—the control of the West and the South by Northern capital—the whole mountain region of the mid-South was neglected by commerce and industry. What had been the fairest province of America's promised land in Mark Twain's boyhood became a "backwood region" of hillbillies and crumbling plantation houses before the turn of the century.

II

It is contrary to reason and contrary to human experience that the strategic key to any great and prosperous country should be permanently removed from political importance, even by such

drastic measures of repression as the Fourteenth Amendment, the protective tariff, the National Banking Act and the railway rates.

And it is a notable fact that this region has been the dark and bloody ground of America since before the white men crossed the mountains and brought the long rifle and the "greased patch" to bear against the tomahawk and the bow and arrow. Rich in game and in natural fertility, with a heavy rainfall and a wealth of natural limestone to breed a strong race, this region was a natural theater for conflict. So it was when Daniel Boone explored the trail which bears his name and found the paths which led the seaboard settlers to the crossing into the Great Valley. Now, after nearly two hundred years of frontier warfare, the tables were turned upon the Indians and the white marauders, led by half-savage Scotch-Irish settlers from Ulster who had descended on the frontier in mid-colonial times, avenged the scalping parties and the massacres. This white drive was a faithless, merciless warfare which swept across the country to Texas, to Kansas, to the Gulf and the Dakotas, and ended only when the Army took command on the Great Plains after the Civil War.

With a vital, virile, undisciplined race pouring into one of the natural treasure houses of the world, the wild and woolly West got its start in Tennessee and Kentucky, where dueling and brawling and fist-fighting and feuding became part of the normal course of human affairs. The Civil War reinforced the natural truculence of the inhabitants. A savage guerilla warfare flickered through the mountains long after the war

itself was formally concluded, and persisted in feuds and vendettas of the sort once associated with Corsica and the primitive Scotch highlands. From Andrew Jackson to Stonewall Jackson this region gave the nation outstanding military commanders and outrageous criminals. The fighting in Kansas and Missouri was simply an extension of this human explosion, and even today the old violent folkways still survive among the hills.

For decades it has been a tradition that a Federal Revenue Officer will be shot on sight in the mountains. During the Prohibition Era it was the mountaineers who continued the old Whisky Rebellion and took the lead in supplying the hinterland with the cup that both cheers and inebriates. Here on the fringe of the lynching belt raged the fiercest theological war of the 1920's—Fundamentalism *vs.* Evolutionism—culminating in the "Monkey Trial" at Dayton, Tennessee, and provoking an epidemic of epithets against "yokels" and "wowsers" on the part of such Eastern publicists as Henry L. Mencken and the metropolitan intellectuals. It has yet to be explained why metropolitan liberals felt that it was their sovereign right and their moral duty to forbid the people of Tennessee to regulate the teaching of science in tax-supported public schools. Had the "hillbillies" invaded New York City and attempted to dictate the curriculum, there would have been a frantic outcry of wrath and indignation against this invasion of the "yokelry."

In the realm of industrial warfare, this Southern region has assumed and held a commanding lead. The murders in Harlan County, Kentucky, the coal war in West Virginia and all the more brutal manifestations of economic feudalism and servile

insurrection show that this region is still the dark and bloody ground it used to be a hundred and fifty years ago. Political campaigns in this region are marked by fraud, violence, murder and coercion on a scale which resembles civil warfare. If there has been an honest election in Tennessee since the Reconstruction days, it has escaped the notice of editors and historians. The last great unabashed political machine in modern America—Ed Crump's amazing Memphis organization—is in Tennessee and turns out majorities as required on a scale which staggers the imagination. The most vindictively individualistic of American employers operate in this same region and labor organization in Tennessee has, until very recently, been a short road to martyrdom.

The resources of this region—where they possess any real negotiable value—have naturally been pre-empted by Northern capital, and the most unregenerate of the big privately owned public utilities have made the region a playground for activities of a sort which would have made Sam Insull hesitate and from which even Associated Gas & Electric prudishly withdrew. Perhaps nowhere else in America would it have occurred to a pro-utility Congressman simultaneously to attack the T.V.A. for not paying a fair share of the state and county taxes on Government power properties, and to introduce legislation forbidding the T.V.A. to pay state and county taxes. In no other part of America would it have seemed normal and appropriate for otherwise reputable people to lie, to misrepresent facts and to challenge the authority and integrity of the National Government as an incident to a legal controversy concerning the

constitutionality of laws designed to benefit the region. Nowhere else in the country would it have been possible for a great and deeply needed program of economic conservation to make deliberate liars out of honest men and to turn decent citizens into psychopathic rogues and slippery shysters.

III

Nowhere else in America was it possible to make a start at the national control of the Mississippi Valley. Tennessee was the strategic region, the Tennessee River was the strategic river. It was the first big stream which the nation had to tame if our people were to survive.

Here you had, in a highly accentuated form, all of the problems which were destroying the economic and human wealth of North America. You had a great river which drained parts of seven states: Virginia, North Carolina, Georgia, Alabama, Mississippi, Tennessee and Kentucky. This river forced a tortured course through the ruins of dead geological convulsions, first flowing southwestward, then north, then south once more, and finally swinging northward away from the Gulf to join the Ohio near Paducah, Kentucky. The Valley through which this river flowed enjoyed a heavy rainfall—over fifty inches of rain a year—which, combined with the melting snows on the mountains, repeatedly sent floods roaring down to swell the floodwaters of the Ohio and the Mississippi in the springtime.

The heavy forest growth on the hillsides had been largely cut down and sold for lumber or burned away to clear the ground for farming. The light friable soil and the steep hill-

sides aided washing and gullying. The land itself had been overcropped and overcultivated. The region held a treasure of limestone and phosphates, while the river's energy could be used to extract nitrates from the air—enough to repair much of the annual wastage—but there was no social or economic organization adequate to do the job.

The river offered a safe and economical route for navigation over six hundred miles through the mountains, but the barrier at Muscle Shoals, the silting up of the river channels and the periodic low water prevented any widespread use of the river. So freight rates were high, wages and living standards low, and, as the soil gave out, the economy and the culture of the whole region was declining.

The people themselves, as the nation should have been warned by the cataleptic dissonance of "hillbilly music" and the issues of the Dayton Trial, were dwindling in physical and intellectual vitality. Poor diet and the diseases of malnutrition were weakening the grandsons of the pioneers who had once swept across the continent. Sanitation, education, industry and trade were also silting up and the whole region was approaching a low level which provided the nation with an object lesson. Tennessee reminded us of what lay in store for the country as a whole if the waste and misuse of its resources continued. Millions of kilowatts of potential electric energy were running to waste. Private investment could not undertake the heavy construction costs and accept the slow and uncertain returns and could not even contemplate the great task of general rehabilitation. Political authority in the region lacked both the

credit and the power to undertake the indicated development, and lacked the intelligence and the will as well. Only one power in the country—the National Government—could command the money and could afford to await the slow and often indirect returns which the economic reconstruction of the Tennessee region offered to courageous social statesmanship.

For here, where our race had first established an organized civilization beyond the mountains, the Great Valley had taken its first toll. The miscalculations and errors of war and politics, of law and economics, which had gone unpunished along the seacoasts, were here visibly rebuked by an ominous economic and social decline, a growing moral provincialism and a political regressiveness which served us as a plain warning. This, said Tennessee—statistically, economically, politically, socially and morally—this will be the fate of all of us unless we take thought to increase our social stature and broaden the shoulders of our changing civilization.

America has accepted this challenge and has undertaken to adapt its civilization to the Tennessee Valley, as an experiment and a training field to fit us for the mastery of the Great Valley of which the Tennessee is a part. This is our "trial-war" in the struggle for national existence in the name of future generations.

IV

That is what makes the T.V.A. the most exciting thing in North America.

Taken in detail, the operations of the Tennessee Valley

Authority are interesting but they are not dramatic. They can be matched or excelled elsewhere in the country.

The dams on the Tennessee River are big dams, impressive works of engineering genius, but Norris, Hiwassee, Chickamauga, Joe Wheeler, Pickwick Landing and even the great Wilson barrage at Muscle Shoals are eclipsed as engineering feats by the tremendous structures at Boulder, Bonneville and Grand Coulee. The power development in T.V.A. is important, whether taken by itself or as an adjunct to the conservation of the river's resources, but the generators are duplicated in a score of American power houses and the total power resources to be exploited are small in comparison with the stupendous untapped energy of the Columbia River or the daily production of electric energy by private utilities. Navigation along the Tennessee River will undoubtedly be an economic boon to the inhabitants of the Valley, but there again the contemplated nine-foot channel from Paducah to Knoxville is only a feeder to the great Federal system of inland waterways and will be of less ultimate national importance than the contemplated Florida Ship Canal or the opening of the Pacific Northwest to navigation above the Dalles which block the Columbia east of Portland.

The problems of soil erosion, deforestation and the restoration of soil fertility in Tennessee are of national interest, but you do not go to that region for the extreme or the dramatic examples of misuse of natural resources. The cut-over forest lands around the Great Lakes offer more poignant examples of the dangers of reckless lumbering. The gullies of the South-

eastern states reveal more pitilessly the ravages on washed-out farm lands. The Dust Bowl area of the Great Plains poses a greater problem in terms of social responsibility for the prudent use of land. Serious though conditions are in the Tennessee region, and though there they are combined as nowhere else in the nation, conditions are still more serious in many other localities.

This is also true of the human problems of the region. Tennessee offers no social catastrophes to compare with the waste of employable labor in Chicago and New York or with the tragedy of the Dust Bowl refugees who have moved to join the army of fruit-tramps in California. Tennessee does not seriously share the cropper problem which is creating a landless rural proletariat throughout the Cotton South. Impoverishment and poor diet are not so marked in Tennessee as they are in wide stretches of Georgia, Florida and the Carolinas. Moreover, there is no important racial complication. The Valley is mainly outside the Black Belt and has had little immigration from other than Anglo-Saxon sources. Its industrial problems are negligible as compared with those of Akron, Detroit or the stranded coal regions of Pennsylvania and West Virginia.

So it is impossible to find, in any detailed analysis of conditions in the Tennessee Valley, any peculiarity of problem or method which differs radically from problems and methods which have long been accepted in other parts of the country.

What is exciting is a new approach to a solution of those problems—problems which are common to the country as a whole—a new motive behind the old methods. By creating the

Tennessee Valley Authority, armed with many of the powers of government and equipped with the flexibility of a business corporation, we are attempting to adapt ourselves to the American environment in terms of itself as well as in terms of our own ideas about that environment. It is the combination and co-operation of many different functions in the Valley, through a political body created for the social and economic betterment of the region, that has produced something new under the political sun.

To build dams and generate electrical energy is not difficult. Any set of engineers, with the funds and the authority, could do the job. But it calls for hydraulic statesmanship if the dams are used as a keyboard on which to compose a symphony of navigation, power generation and flood control in terms of the Valley itself and the flood-stages on the Ohio and the Mississippi. It is easy for the Government to move in, by force of bayonets or dollars, and improve living conditions in a region. The U.S. Army did that in Cuba and in the Panama Canal Zone. The Russians, Germans and Italians attempt to justify their political institutions by this process. It is something else to use the T.V.A. as the focus for unforced and growing co-operation between State, county, town and city governments and by the jealous water-tight bureaus of the National Government as well.

This means that democracy has laid its hands upon a new force in human history—a power which, for want of a better word, we must call social capital. The combination of many

public functions not only achieves an economy of effort but produces a total result which adds up to something far greater than the mere sum of its parts. The process is multiplication, rather than addition. This is the strategy of a dynamic society working in the strategic area of North America. It is that famous "union on the field of battle" which is the secret of military—and political—success. It is creative politics as distinguished from political administration. Its meaning was clear when the private utilities tried to compel the T.V.A. to base its power rates on the total cost of the Federal investment in the Valley rather than on the cost of that part of the development allocated to power. For the T.V.A. had discovered the economies inherent in the use of social capital as distinguished from finance capital, and could make a case for charging nothing whatever to the cost of power, since the demonstrable savings from flood control and navigation could easily be capitalized at a sum far greater than the total national expenditure.

What makes T.V.A. most exciting of all is the knowledge among the officials of what they are doing, the manifestly high morale, the *esprit de corps* which controls their operations, their pride in efficiency and economy, the sense that they are tackling something much bigger than setting concrete, planting seedlings or terracing eroded hillsides. No conservative analysis of T.V.A. pays much attention to this phase of the Valley's development. The liberal appraisals also miss the point in their tendency to gush about the beauties of publicly owned power and the nobility of regional planning.

V

This is largely because the question of power has obscured the real relation of the hydroelectric developments incidental to T.V.A.'s organization of the region.

It is easy to become so emotionally affected by the implications of a struggle for power that the real issues of electrical generation in a program for regional planning are swiftly forgotten.

From the scientific point of view, the development of hydroelectric energy on the Tennessee River is entirely incidental to the real job of social and economic conservation which must be done. Most of the present activities of the T.V.A. would have to be undertaken—as they are elsewhere in the nation—even if there was not an unappropriated kilowatt of public power available in the region.

Yet power is also indispensable to the T.V.A. program. It is a catalyst which energizes the whole operation. The generation and sale of public power reduces the direct economic cost of reconstruction and conservation and indirectly creates economic resources which far outweigh the financial considerations which must always govern Federal investment. The Mississippi Valley Committee studied power as "a co-ordinating factor in river development" and made it clear that without electric power the entire campaign in the Great Valley would be leaderless and aimless.

Why this should be is obvious. Electricity generated from the natural fall of water is the nearest thing to magic in the modern economic world. It is "laborless fuel," energy which

continues without resort to human labor for anything but maintenance and distribution. It is the one human discovery which actually suggests the possibility of a golden age. Once the job of construction is completed, the power remains indefinitely available for the using. In adapting ourselves to the rivers of America—which are the property of the Government—we must use the rivers to help us. Hydro is one of our greatest tools and the Government has developed a virtually new science in dam building, at public expense. By all the laws of logic and human society, the power developed at these dams is the property of the Government. Any new social structure which we may create in the process, will depend largely on electrical energy for its economic welfare. This is a cardinal fact.

From the purely political point of view, cheaper and more abundant electricity, combined with cheaper credit and lower transportation charges, is the chief asset by which the nation's political administration can finance a broad program of economic and social reconstruction. This program involves the change of our debt structure from a grave of dead capital into a dynamic, directed use of our energies along socially beneficial channels.

This process inevitably trenches on vested interests. It is a common mistake of the friends of the T.V.A. to identify these interests too narrowly with the marketing operations of the private utilities. The latter are not really much alarmed by the prospect of falling prices for electricity or by the intrusion of the Government into the business of generating and distributing power. Hydro can serve only one-tenth of the national

market, the demand for electricity is growing, and the general trend in the utility business has long been to increase production and to lower charges.

What is disturbing is the impact of a major economic change on minor economic interests. The whole nexus of interest rates, freight rates, capital structures, stock market quotations and banking power is directly challenged by the T.V.A. as an example of the new economic policy which the National Government has been forced to follow because private business was incapable of doing so. This challenge involves the whole conservative position in our public life and not merely the immediate corporate welfare of Commonwealth & Southern or Electric Bond & Share. It involves the values of real estate, mortgage rates, the insurance business, the endowments of churches and colleges, trust funds, and all the other institutions which have grown up around the *status quo*.

This, rather than a quixotic desire to protect the dubious business practices and investment values of an industry which is in deep moral disrepute, is what accounts for the unanimity with which the social conservatives have condemned the power policies of the T.V.A.

The political tragedy of the T.V.A. is that it has been compelled, against its will, to challenge these vested nation-wide interests, even though the private utilities and the Government officials directly involved were disposed to come to a friendly settlement. Here again, the Great Valley disposes where politicians tried to propose. The course of events is as clear as the plot of *Oedipus Rex* or *Hamlet*.

Private enterprise, particularly as represented by the finance capitalism which we developed after the Civil War, resulted in a widespread, accelerating and nationally dangerous depletion of our basic wealth—including men and women. The only way to prevent these ruinous losses in land and labor, in hopes and humanity, was by undertaking social and economic reconstruction on a scale far beyond the will or capacity of private finance to undertake. To complete these enterprises on the most economic basis and with the widest possible beneficial results, the Government was forced to generate, distribute and sell hydroelectric energy at lower rates than the privately financed utilities cared to charge. The utilities themselves, with one exception, were disposed to accept this development with good grace, but their banking, industrial and political colleagues took alarm. The widespread use of cheaper power and the reduction of transportation costs in the key-area of North America could not be confined to the Tennessee Valley. It would spread and, spreading, would subvert accepted values, rates, standards and industrial conditions throughout the nation. As custodians of these rates, values, standards and industrial practices, the conservative interests were forced to declare economic war against their own Government and to preach a sterile economic doctrine which identified higher costs and lower efficiency with the traditional business institutions of the nation. They were forced to advocate openly the restriction of production and the increase of costs on property which the Government wished to make available to its citizens.

It is only by realizing the crucial importance of the power

policies which the great rivers (including the Tennessee) are forcing upon the American people that one can understand how Tennessee has become once more the key to the conquest of the continent and why the T.V.A. rates and regulations for the use of power generated *incidental* to its wider program of regional betterment should be the storm center of national politics. For the issue is not the generation of power by the Government or even its distribution; the issue is the retail rate at which that power is made available to private and industrial consumers. Otherwise, the private utilities would gladly purchase and resell every kilowatt generated by the Government, without raising the cry of socialism. But private consumers could not afford to buy the output of T.V.A. at the rates charged by private utilities, so the economic and prudent course is to fix rates at a level which will absorb the abundance of energy in the river itself.

Since there has never been an age or a race in which power was not the subject of political controversy, it is idle to consider the T.V.A. power conflict as a mere incident to governmental benevolence or corporate chicanery. It is the bloody angle of the war against ourselves, our social attitudes and our nature, the war which the Mississippi Valley is forcing us to make, as a condition of our own survival. It is the test of whether Americans can adapt themselves, by co-operative effort, to an economy of abundance.

★

RECONNAISSANCE

THERE is no better argument for the establishment of the T.V.A. than the previous history of the Tennessee Valley and, in particular, the long struggle for the control of Muscle Shoals. Bit by bit, blindly, reluctantly, and often most unwillingly, the American Government was forced into a program of public ownership and public operation of the power resources of the Tennessee River. From a simple pioneer rush for riches and land, down to the President's Special Message to Congress on April 10, 1933, calling for legislation to create "a corporation clothed with the power of government but possessed with the flexibility and initiative of a private enterprise" in order to develop the region, the problems generated by the mere existence of a great river in a civilized community have imposed themselves on our public policy with all the force of destiny.

In retrospect, as you examine the unsavory public history of Muscle Shoals—the first project from which grew the T.V.A.—it seems incredible that the power resources of the Tennessee River should have escaped the appropriation for private profit which has alienated our public domain in lands, forests and minerals. Yet again, in retrospect, it seems inevitable that the

T.V.A. should have come into existence. More than a century ago the demand for a canal to ensure safe navigation around the rapids at Muscle Shoals called attention to the fact that a great river posed problems beyond the capacity of private initiative to solve. Those problems have grown, rather than diminished, as the country has grown, until now they include navigation, national defense, land use, flood control, erosion control, power generation, and the manufacture of fertilizer. Time and again Congress was willing to surrender Muscle Shoals to private enterprise but each time either the financial support was not forthcoming or the offer to the Government for the property of the people and for its existing investment was so derisory that even the Republican Congresses of the 1920's dared not accept them. Every kind of chicanery and misrepresentation, touching even the professional integrity of the Army Corps of Engineers and the Smithsonian Institution, was brought into play; but in retrospect there was never any doubt of the final outcome. Government ownership was the only way in which an urgently important national job could be done.

The history of the Tennessee region has been tainted with fraud from the start. The frustrated effort to make T.V.A. pay several million dollars more for the property of private utilities in the region than the property was worth was only a lineal descendant of a tradition of cheat, grab and bluster. In fact, the region first dawned upon the national consciousness in connection with the famous Yazoo land frauds. Shortly after the American Revolution a group of speculators persuaded the Georgia legislature to give them title to some 15,000,000 acres

of land on the Tennessee River, reaching to Muscle Shoals. Since the territory belonged to Spain at the time, George Washington issued a proclamation denying Georgia's right to give away this real estate. But the speculators kept right ahead and got money from New England to back them up. In 1795 another bill went through the Georgia legislature and the Yazoo gang got title to 20,000,000 acres for $500,000. This led to a bitter political fight in which Georgia reversed the grant, leaving the "widows and orphans" of New England pathetically holding the bag which they had purchased from the speculators for about two million dollars. The matter of compensating these defrauded investors, in what was perhaps the first American holding company, remained in national politics until 1814 when Congress, as a matter of expediency, appropriated $5,000,000 to wipe out the whole Yazoo mess and clear the Federal title to the region.

After General Jackson had finally settled the real issue of sovereignty in that part of North America by driving out the British and the Spanish, the National Government took greater interest in strategic Tennessee. Proposals for canals around Muscle Shoals intermittently were brought to the Government's attention in this key state, and more than a hundred years ago the Treasury Department began its first big project on the spot where so many financial accidents were to occur. After the Civil War, the railways supplanted the waterways which had given the Great Valley its brave steamboat days. The South was financially ruined by the War and by the expropriation of Southern property in slaves and currency. The Democrats were

a minority Party in Congress. Consequently, up till the end of the century nobody was much interested in financing Southern developments at the expense of the North.

It was not until the dawn of the age of electricity and the development of hydroelectric techniques that Muscle Shoals became anything more than an unwelcome obstacle to the free use of the Tennessee River and was regarded, instead, as a potentially valuable piece of property which might some day be profitably developed if somebody put up the money. Those who seek parables in politics are invited to notice that what had been the chief drawback to the Tennessee River had become its greatest asset. Our ways of thinking and living had changed when we no longer worried about how to get freight around the Shoals and began planning to use the fall of water for other purposes.

II

At this point it is important to remember that before the twentieth century there was no thought of public ownership or operation involved when the Tennessee River's power first came to public attention. The Federal interest was confined to navigation, to fisheries and, to a limited extent, to considerations of flood control. In McKinley's day it was not believed that the Federal Government owned the power involved in the water of our great rivers. It was assumed that whatever power existed would naturally be exploited by private concerns and that the Government's consent was required only because a quaint clause in the Constitution gave Washington jurisdiction.

That had been the rule, and in the case of the railroads built across lands in the public domain, the Government had helped bear the cost of construction by a generous system of subsidies which created a privately owned system of transportation monopolies. The Interstate Commerce Commission had recently been created, but that was designed to regulate competition between the railroads in their own interest.

However, during the flush of intersectional good feeling which preceded the Spanish-American War, the first Muscle Shoals Act was passed by Congress. The bill was introduced in the House of Representatives by the former Confederate general, Joe Wheeler of Alabama, who was later to fight at San Juan Hill in Cuba and immortalize himself, when the Spanish retired, by the involuntary cry: "See the damn Yankees run!" Wheeler's bill empowered the Muscle Shoals Power Company of Alabama to construct the necessary works to generate power at the Shoals. It was adopted early in 1898, with an amendment providing for payment of tolls to the Government on the power generated. The bill also provided that the work must be completed within three years. Construction was not begun, and in spite of three successive extensions of the time limit—the last in 1903—the Muscle Shoals Power Company did not find the capital to take up its franchise, and the project lapsed.

In 1903, the year of the last extension, a national power policy began to take form when President Theodore Roosevelt unexpectedly vetoed another bill granting another private group the right to build a dam and generate power at Muscle Shoals. This veto laid down this principle: "Wherever the Government

constructs a dam and lock, for the purpose of navigation, there is a waterfall of great value. It does not seem right or just that this element of local value should be given away to private individuals of the vicinage, and at the same time the people of the whole community should be taxed for the local improvement."

This was a moral bombshell—one of the first of many exploded by the great T.R., but the veto was upheld in Congress. When, therefore, in 1905, Congress began a serious survey of the Muscle Shoals region of the Tennessee River, a principle had been adopted which has survived for thirty-six stormy years: that the Government shall not give away the property of the people in water power, whether natural or artificially created by Government dams.

Since every attack on T.V.A. has been designed to overthrow this simple principle of right and justice, it is worth bearing it in mind. Private interests seeking to control the water power of the Tennessee River have sought to get something for nothing, for a period of forty years.

A year after the survey began—in 1906—another Muscle Shoals bill was drafted, surprisingly ignoring the point raised in the earlier veto and throwing the Shoals open to development. There was no provision for payment to the Government, and it was stated in Congressional debate that it was "impossible to obtain the capital to develop water power if the Government should start in upon the idea that the National Government should require corporations to contribute to the National treasury." Secretary of War Taft (later President)

was willing to go along with this scheme and Theodore Roosevelt overlooked his earlier veto and signed the bill on March 6, 1906.

Almost immediately—as was to be expected—a company was formed to take advantage of the measure: The Muscle Shoals Hydroelectric Power Company (later merged with the Alabama Power Company which in turn was to become part of the Commonwealth & Southern system). This concern proposed to build three dams and open up a good waterway from Paducah, Kentucky, to Knoxville, Tennessee. For this purpose they proposed a joint investment by the Government and the Company.

This proved to be an obstacle. Federal experience with partnerships between Government and business was that the Government supplied the money and business supplied the experience, with the usual result that the Government got the experience and business got the money. The Muscle Shoals Company also found the law too general for their purposes; so in 1907 another bill was introduced to give them perpetual ownership of the Muscle Shoals power and providing that the Government should build navigation locks and pay half the cost of the dams. The Company offered no estimate of costs; so the Secretary of War was authorized to appoint a Board of Engineers to study and report on the financial aspects of the proposition. The Board reported that the Government would have to pay about $5,000,000 of the total cost of $20,000,000. There were the usual delays, fresh reports, and finally, in 1909, it was held that the Company's proposals were unacceptable.

Two years later the same project was revived with high hopes. Taft had become President and was known to favor corporate enterprise and to oppose Federal tolls for the use of water power. A second Special Board of Engineers was created, headed by an officer who was related to the political sponsors of the scheme, and in 1913 a new proposal for a 100-year lease of the Shoals was offered to private bids. Only two bids were received on this offer, and both were without substantial merit.

In the meantime, the size of the project had grown. Instead of one dam, the Army Engineers called for four, at a total cost to the Government of $17,000,000. The Muscle Shoals Company, encouraged by the Democratic victory in 1912 and the Southern control of Congress, came back with an offer to build three of the four dams. The proposal was described by the Company as "a plan by which, through the development of water power, the United States Government is repaid all of its expenditure for navigation and water power development and becomes sole possessor of all the things for which that expenditure was made." The Company's plan called for the Government to give the Company $18,000,000 to do the job, of which sum $8,000,000 was to be returned to the Treasury in payments over a period of 100 years.

The Board of Engineers was now packed to support this innocent proposal and Congress was strongly Democratic, with Southerners in control of the important committees. But the House of Representatives was hostile to a plan which was so unfair to the Government and opposed it in 1914 and 1915. The Army Engineers persisted in disregarding the will of Congress.

There were charges of the existence of a "water-power trust." There were filibuster tactics in the Senate, and the Chief of Engineers became almost rebellious and again endorsed the Company's plans in 1916.

III

It was at this point that the old Rooseveltian politics of conservation became entangled with the new Wilsonian politics of preparedness. A problem in river management which could not be solved in terms of the dawning conflict between public control and private enterprise might yield to the arguments of national defense.

Where T.R., as a matter of principle, was attacking monopoly and refusing to give away the public's property in flowing water in his Rainy River veto of 1909, Woodrow Wilson was forced to consider the possibility of a nitrate shortage at a time of national danger. The Rooseveltian conservation fight had called into existence both the Power Trust and the Power Lobby, as a by-product of the Government's effort to deal with the rivers of the West. But the German U-boats and the World War were more powerful considerations than any academic principles, and what could not be done by eighteen years of lobbying, propaganda and legislation was accomplished almost overnight under the National Defense Act of 1916.

During the later stages of the Muscle Shoals fight, the luckless promoters had advanced strong arguments for the use of Tennessee River power to fix atmospheric nitrogen for the manufacture of explosives. The American Cyanamid Company

was also warmly interested in this proposal. Talk of nitrates was calculated to invoke the support of the farmers as well as of those favoring preparedness. The House, however, rejected a proposal to spend $24,000,000 to go into partnership with private industry in order to manufacture nitrates. At this point in the debates over the Defense Act, Senator Smith—"Cotton Ed" of South Carolina—proposed Government plants for nitrates—outright public ownership and operation, in the interest of agriculture. The Smith plan passed the Senate, in the face of bitter opposition from the Power Lobby and the Munitions Lobby, as an amendment to the National Defense Act.

The debate on this point raised extensively and in detail all of the arguments and ideas which were to revolve around the Muscle Shoals issue for the next twenty years. The House offered a substitute section of the National Defense Act, which ducked the whole problem by giving the President broad authority to select power sites and manufacture nitrates under Government ownership and operation "and not in conjunction with any other industry or enterprise carried on by private capital." The Act also authorized the President to lease out the electric power, if he desired. On June 3, 1916, the measure was signed by President Wilson, and so Section 124 of the National Defense Act of 1916 became the germ of the T.V.A.

The decision had been bitterly contested and the issue had been thoroughly debated. Had it not been for the World War, it might well have been postponed. The War had created a tremendous demand for explosives, and the source of nitrates—from which explosives are made—was in Chile. The Chilean

industry was dominated by German interests, and submarine operations rendered the supply precarious. Prices were mounting and stocks were uncertain. The only other source of nitrates lay in the atmosphere. The German Haeber process and the Cyanamid process were available for use, though the industry was in its infancy. As early as 1915 the Chief of Ordnance had become disturbed by the nitrate shortage. It was therefore imperative that the Government develop the alternative source of atmospheric nitrogen, against the possibility of America entering the war.

After exhaustive scientific studies it was decided to build an experimental plant to use the modified Haeber process. This decision was taken in January, 1917. By September, 1917—the country having already entered the war, as anticipated—the Secretary of War, Newton D. Baker (who was later to attack the "constitutionality" of T.V.A.), selected Muscle Shoals as the site for Nitrate Plant No. 1. By October the need for nitrates was so urgent that General Pershing cabled that America must supply its own needs and half those of France, if the war was to continue. So a second nitrate plant was authorized, to use the process of the American Cyanamid Company, the concern which had shared with the Muscle Shoals Company the dubious honor of lobbying for a "partnership" based on Government funds.

This latter plant was completed in time for a test run of nitrates on January 11, 1919, exactly two months after the Armistice had brought the World War to an end. Such war nitrates as were manufactured in quantity were produced by

the Alabama Power Company at the Warrior River plant, using power from Muscle Shoals and limestone from the Government-owned Waco quarry near Russellville, Alabama. By this charmingly ironical turn of events, the World War put the Government into the nitrate and power business, only in time for the peace.

For in February, 1918, concurrently with the nitrate plants, work was begun on the great Wilson Dam at Muscle Shoals, as a Government-owned and operated power project to promote the national defense. The dam was started on plans prepared by the Army Engineers early in 1916, and the construction job was also handled by the Army. These plans called not merely for power development but for navigation and flood control, and thus laid the practical foundations for a policy which has continued to grow for twenty years. Twenty years after Joe Wheeler introduced his first bill for a dam at Muscle Shoals, the Government began to build such a dam itself, having failed to find any responsible private enterprise which was willing and capable of doing the job in the name of the traditional profit system. The World War and the Great Valley together had cracked the profit system in water power. The only question was whether the peace would not bring a return to the cultural patterns of the past and crush the Government's first and almost accidental excursion into state capitalism.

IV

The War ended and with it the Wilson Administration drew to an inglorious close. Unlike the Roosevelt Administration of

twenty years later, the political fortunes of the Democratic Party in power had been clearly waning since the morning after election day in 1912. In 1914, the Party had lost some of its majority but retained control of Congress; in 1916, it had lost more seats in the House; in 1918, it had also lost control of the Senate (by one vote, and that one fraudulent but sufficient) and of the House as well; and in 1920 it was doomed to be replaced by the Republicans, after an intrigue between the opposition and the conservative Democrats which was to serve as a pattern for later betrayals.

Before the Harding landslide election, the Wilson Administration had codified its position on Federal control of water power by securing the passage of the Federal Water Power Act of 1920. This measure was drafted by Newton D. Baker, Wilson's Secretary of War, and laid down the principle that water-power sites, including sites on the tributaries of navigable streams, were Federal property and could be leased to private interests for fifty-year periods, on payment to the Government of royalties for developing the power. Later on, when Mr. Baker had been retained—he was a lawyer—by the private utility interests, he had the effrontery to argue before the Supreme Court that his own measure was unconstitutional. However, it was sustained and was to become an element of crucial importance in the struggle which followed the Republican reaction.

Wilson had left the Government actively engaged in the generation of power, the manufacture of nitrates and the construction of the dam at Muscle Shoals. As a prelude to the

election of 1920, there had been the usual Congressional "investigation" of the project, charging that it was an expensive mistake and that it violated American principles. Following the actual election, the House refused to appropriate money to continue work on Wilson Dam, on the ground that the Republican victory was a mandate to take the Government out of business, and after a deadlock between the House and the Senate, work was actually stopped—a wasteful gesture which tested the integrity of democratic government.

Here was the situation in 1921. The Wilson Administration had built two nitrate plants at a total cost of $82,000,000, had spent $5,000,000 on the Warrior River Station and over $1,000,000 on the Waco Quarry and had begun work on the dam. At this point, the Party of what Harding called "normalcy" came into power, pledged to undo all this "socialistic" experimentation. Liquidation of all War activities was on the cards, and the public was emotionally prepared for anything except open graft on the scale of the Teapot Dome oil scandals. Congress was ready to scrap the entire Federal investment at Muscle Shoals for the benefit of the private utilities, and there was nothing to stop the sell-out. Anyone who would have argued that the Muscle Shoals power project would survive an Administration which contained men like Fall, Weeks, Denby, Hughes and Hoover in the Cabinet would have been regarded as a madman.

Less than a month after the Harding gang had control of the White House, the Chief of Army Engineers was instructed to invite bids from the private companies for taking over

Muscle Shoals. Inquiries were made of the Alabama Power Company (seven years later to be merged into the Morgan-controlled holding company of Commonwealth & Southern) and the Duke interests in North Carolina. The power companies feigned indifference, in an apparent effort to "bear the market" on Muscle Shoals, but this indifference yielded to lively apprehension when Henry Ford entered the picture in July, 1921, with an offer to take over and operate the properties. From then on until May of 1933 there were no less than 138 Muscle Shoals bills introduced in Congress. With the exception of the Norris plan for public ownership, these proposals centered around the Ford offer (1921-24), the bids of the Southern Power Companies (1925-27), and the offer of the American Cyanamid Company (1926-29).

In every case, the proposals of the private interests were rejected because they asked the Government to give them something for nothing and because they did not make adequate provision for the national interest in river control. So the country witnessed the strange spectacle of a Congress trying to dispose of Muscle Shoals on knock-down terms and failing only because private capital would not make any sensible offer for properties which had cost the taxpayers over $100,000,000 by July 1, 1921.

The first effect of the Ford offer was to cause Congress hastily to resume work on Wilson Dam. Mr. Ford cleverly took advantage of the original Smith plan to manufacture fertilizer for the farmers and promptly enlisted widespread support from organized agriculture. But Mr. Ford did not pay any

attention to the terms of the Power Act and offered to take over the Shoals on a 100-year lease. He offered to pay $5,000,000 for properties which had a scrap value of over eight million dollars, and it was estimated that he could cover his costs from the Warrior River plant alone and get the other properties for nothing. None of the major public purposes in the river development were protected by the Ford plan and it was withdrawn by the Flivver King in the general political settlement by which Mr. Ford refused to challenge Coolidge for the Presidency in 1924.

The Southern Power Companies (germ of Commonwealth & Southern) proposed a somewhat similar scheme, which was equally unacceptable and which was rejected because the plan failed to meet the Farm Bloc's demand for cheap and abundant fertilizer. There were other offers, notably by American Cyanamid and Union Carbide, and under Coolidge the Cyanamid Company made a major effort, supported by the American Farm Bureau Federation and the Power Lobby. The Cyanamid offer was for properties which had then cost the Government over $200,000,000 and which would produce 4,500,000,000 kilowatt hours a year. Nothing was to be paid for the nitrate plants, the company was to invest $5,400,000 in additional equipment for the steam power plant at Sheffield, Alabama, with a prospective profit of between $1,650,000 and $7,000,000 a year—or between 30% and 130% annually on its modest investment.

Such examples have been cited by the proponents of public power as evidence of inherent crookedness on the part of the private power interests. Greed and dishonesty were doubtless

in the picture, but it seems fairer to conclude that these trifling offers for a great asset are evidence that the problem of river development in the Great Valley was rapidly outgrowing the capacity of private capital. When these were the best offers which could be obtained for a valuable property at the high tide of "Republican Prosperity," one can only conclude that the Government was becoming the sole agency able to finance such developments. In the thirty years since Joe Wheeler had introduced his first Muscle Shoals bill there had never been a time when private investors had been willing or able to pay the costs of the proposed power development alone or to do any real part of the job of river control. Less than five cents on the dollar was what they offered the Government for its investment on the Tennessee River, and yet they were later to argue that the Government's power rates should be based on the entire sum of Federal money spent to develop the Tennessee Valley!

V

As Ford and the Southern Utilities and American Cyanamid were respectfully laughed out of the picture as financial pikers, a new proposal was urged upon Congress by Senator George Norris of Nebraska, who was almost the sole survivor of the early group of Roosevelt conservationists who had fought for public ownership. When the great play to win farm sentiment for the alienation of the Shoals in the sweet name of fertilizer had failed, there remained only two things the Government could do: either sacrifice the Federal investment or complete the job itself.

At the high noon of the Harding reaction, in March, 1922, when the Ford offer was still under enthusiastic consideration, Senator Norris introduced his first bill for the national development of the Tennessee River. Its principles and provisions clearly foreshadowed the T.V.A. Act of eleven years later. After extensive hearings, the Senate Committee on Agriculture, of which Norris was the Chairman, reported the bill to the Senate. It did not pass and its chief service was to help block Mr. Ford's magnanimous plan to take over the public domain at Muscle Shoals, at a very low price, for a hundred years of private profiteering.

Two years later, in February, 1924, Senator Norris introduced a second bill, again to block the Ford offer, which was reported as a substitute for that offer, after exhaustive hearings. The new bill was notable for containing authority for the Government to build transmission lines to distribute the publicly generated power of the river. This was a powerful offensive move, since the effect of the stalemate was to give the Alabama Power Company a profitable monopoly on the sale of Muscle Shoals electric current, using the lines built into Sheffield during the War. This time Senator Underwood of Alabama unmasked and introduced the legislation desired by Coolidge and the power companies. The result was an inconclusive duel between Tory Democrats trying to give away the South's wealth to Northern controlled capital and Progressive Republicans insisting on national control of the nation's basic wealth in water.

A third Norris Bill, identical with the second, was introduced early in 1926 and after hearings was allowed to lie dor-

mant, like "a club in the closet," until the end of the session of Congress. Again in February, 1927, a fourth Norris Bill was introduced and served to block the American Cyanamid offer. This Bill was favorably reported and was reintroduced in December, 1927, during the closing period of the Coolidge regime. After a bitter struggle in both House and Senate, the measure was passed and was "pocket-vetoed" by President Coolidge. The principle of public ownership had captured both houses of a Republican Congress but had failed to capture the Presidency or the Courts.

In 1928 Herbert Hoover had been chosen to succeed Coolidge and had given the impression in his campaign that, though opposed to public ownership, he would make an exception for Muscle Shoals. So the sixth Norris Bill was introduced. It was passed by the Senate and finally concurred in by the House, in February, 1931. President Hoover, despite the fact that his Party had lost control at the elections of 1930, vetoed the Bill. He not only vetoed it but did so in language which still casts reflection on either his political sanity or his economic integrity. The Army Engineers had previously reckoned the cost of producing Muscle Shoals power at 1.3 mills per kilowatt hour. Mr. Hoover stated the cost at 9.1 mills (more than the cost of privately generated power) and cited the Army to support him. The Chief of Engineers, when summoned to testify on this point, was unable to explain the two different prices he had set for Tennessee River power, and the most charitable assumption is that he was obeying the orders of his Constitutional

Commander-in-Chief. Mr. Hoover's veto message might well have been—and probably was—drafted by the National Electric Light Association and his utility backers. Senator Norris merely observed that the message contained "a large number of misstatements" and characterized it as "his wicked, his cruel, his unjust, his unfair, his unmerciful veto." Only two Republican Senators attempted to defend the veto. It was an immoral bombshell, as Theodore Roosevelt's 1903 veto had been a moral bombshell, and marked the last attempt to take Muscle Shoals out of politics by giving it away.

The veto message had proposed that the properties be deeded to the States of Tennessee and Alabama, to be settled on a regional basis—the only contribution toward regional planning made by Mr. Hoover—with the Federal Government represented in the negotiations. A Commission was accordingly appointed which obliged its sponsors by promptly reporting that the power and fertilizer properties ought to be leased by the President to private enterprise in the name of agriculture.

Again, in 1932, another Norris Bill—the seventh—was introduced and hearings were held but no action was taken. For by then the "moral climate" was changing and a new administration which shared Senator Norris's convictions on national power policy was about to be elected and replace the Republican administrations which had failed, after twelve years of increasingly dishonest effort, to turn the power resources of the Tennessee River over to a group of private interests owned and financed in the North.

VI

A new star was rising in the national firmament. Governor Franklin D. Roosevelt of New York State had been sent to Albany the same year that Alfred E. Smith had been beaten for the Presidency by Herbert Hoover. Roosevelt had inherited the forthright though far too academic views on conservation held by his famous cousin Theodore. He had also inherited Wilson's practicality in dealing with rugged issues on a plane of persuasive idealism. He had, moreover, inherited a first-rate political battle in New York State between the Albany administration and the up-State power interests. In 1930 Governor Roosevelt was re-elected by a larger majority than even Smith had obtained in his four terms of office and was clearly destined to be the next Democratic President.

The power controversy in New York involved, on a minor scale, the same issues as those which had been agitating Congress in the fight for Muscle Shoals. The State held or claimed title to certain water-power sites. The companies controlled distribution and sought perpetual title to the State's power resources. A number of compromises—some realistic and others disguised grabs—had been offered, but all had failed. They had failed largely because the power companies refused to accept public authority or to give value for the public properties they sought to obtain through franchises. The New York companies were, moreover, the heart and soul of the Power Trust which was combating public ownership through the N.E.L.A., in schools and universities, in controlled newspapers, in Congress, at Muscle Shoals, at Boulder Dam and elsewhere.

Governor Roosevelt's campaigns and policies were opposed by this group of utility interests, and as they approached the campaign of 1932 they attempted to make Newton D. Baker of Cleveland, Ohio, the Democratic candidate—Baker being the man who had deserted the liberal cause, though retaining the liberal label, in pursuit of a profitable law practice for the railroads and utilities.

Both administratively and politically, therefore, Governor Roosevelt had no cause to love the private power companies or to trust their motives. Moreover, he and his friend and secretary, Louis McHenry Howe, were emotionally convinced that a decentralization of industry into rural areas would restore the stability and sanity of American life and that this decentralization could come about only through Government pressure on the power business. Finally, the major strategy of the 1932 campaign demanded that Roosevelt win the support of Norris, LaFollette and other Western Progressives who had fought to save Muscle Shoals for the Government. Forces which shape political destiny thus came together to bring about a definite pledge by Roosevelt of action at Muscle Shoals along the line of public ownership.

The private utilities were, furthermore, in a weak moral position at this time. The ruinous collapse of the Insull utility empire had been matched by other scandals which discredited the entire industry, as well as banking and Big Business as a whole. Even Commonwealth & Southern, the great holding company which was later to do battle against T.V.A., had been organized on the eve of the Hoover Panic, just in time

to rid plenty of investors of their savings. The whole system of economic enterprise and corporate profits had collapsed disastrously, and President Hoover's pretensions to being an engineer in appraising the problems of political economy had been deflated by his surrender to the tariff lobby which made his Administration an economic *reductio ad absurdum.*

Once the utilities had failed to nominate Mr. Baker at Chicago—largely because of the opposition of William Randolph Hearst to any candidate who was legal counsel for his journalistic rivals, the Scripps-Howard chain—the battle to control the Presidency in the interest of private operation was lost. It was a foregone conclusion that Roosevelt would be elected, that Congress would again pass the Norris Bill and that the new President would sign it, leaving only the Federal Courts to stand as bulwark between the people and their property.

Thus, in less than thirty-five years, there had been a far-reaching psychological revolution in our national approach to the problem of our great rivers. During that period it had been asserted and maintained that the Government had a property interest in power sites on navigable streams and their tributaries. It had been proven, by repeated and painful experience, that private power interests lacked the will or the financial resources to undertake the sort of development required on our great rivers. It had been established that it was contrary to sound public policy for the Government to enter into "partnership" with private enterprise, because of the radical diversity of the motives of business and Government. And it had been shown that the most corrupt and reactionary Congress since

the Reconstruction Era could not make a gift of the Federal investment at Muscle Shoals to private enterprise. The time had come when a new policy and a new program for Federal water power and national river control was the only possible alternative to dangerous, deliberate and destructive waste of a great natural resource.

None of this had happened because any one man had desired it. The change had come as the people and the Government of the nation were slowly forced to face physical and economic realities on the Tennessee River. After a century and a half of experience, we were ready to undertake our first big drive for the reconquest of the Great Valley from ourselves and our mistakes.

★

THE BIG DRIVE

The advent of the Roosevelt Administration in 1933 marked the opening of the first big drive by the American people to bring their civilization into enduring adjustment with the Great Valley. The history of the previous thirty-five years had marked out the Tennessee region as the scene of this major offensive to secure the social and economic betterment of our people. The closing weeks of the Hoover Administration had cleared the way for the Roosevelt Plan of Campaign. The default of the war debts in December, 1932, and the general collapse of the whole banking system by the day of the new President's inauguration had removed the last pretense that private enterprise was in a position to handle our more important national problems or that the financial methods of the past were adequate to meet our growing needs for action on a broad scale, sustained over many years.

As early as February of 1933, a Federal relief administration was set up to deal with the desperate problems of industrial unemployment, and less than a week after March 4 a special session of Congress was summoned by the new President. The New Deal began and Congress, in the course of its ninety-nine days in session, tackled on a broad and imaginative front all

of the great issues which the conservatives had claimed could be settled by "natural forces" alone—forgetting that human nature is also one of the "natural forces" which govern a political and economic society. The fact that the New Deal attack was so broad and varied, embracing factors as diverse as the repeal of Prohibition and strengthening the farm credit situation, the institution of the Civilian Conservation Corps and the abandonment of the Gold Standard, made it possible for an almost revolutionary step to be taken as a matter of course to deal with Muscle Shoals.

On April 10, 1933, President Roosevelt sent the following brief message to Congress:

> The continued idleness of a great national investment in the Tennessee Valley leads me to ask the Congress for legislation necessary to enlist this project in the service of the people.
>
> It is clear that the Muscle Shoals development is but a small part of the potential public usefulness of the entire Tennessee River. Such use, if envisioned in its entirety, transcends mere power development; it enters the wide fields of flood control, soil erosion, afforestation, elimination from agricultural use of marginal lands, and distribution and diversification of industry. In short, this power development of war days leads logically to national planning for a complete watershed involving many States and the future lives and welfare of millions. It touches and gives life to all forms of human concerns.

I, therefore, suggest to the Congress legislation to create a Tennessee Valley Authority—a corporation clothed with the power of government but possessed with the flexibility and initiative of a private enterprise. It should be charged with the broadest duty of planning for the proper use, conservation and development of the natural resources of the Tennessee River drainage basin and its adjoining territory for the general social and economic welfare of the Nation. This Authority should also be clothed with the necessary power to carry these plans into effect. Its duty should be the rehabilitation of the Muscle Shoals development and the co-ordination of it with the wider plan.

Many hard lessons have taught us the human waste that results from lack of planning. Here and there a few wise cities and counties have looked ahead and planned. But our Nation has "just grown." It is time to extend planning to a wider field, in this instance comprehending in one great project many States directly concerned with the basin of one of our greatest rivers.

This in a true sense is a return to the spirit and vision of the pioneer. If we are successful here we can march on, step by step, in like development of other great natural territorial units within our borders.

This was a new technique in what had become a stale and wearisome debate on the respective merits of public and private ownership of water power, with overtones of fertilizer. It

introduced the idea of regional planning for the economic and social betterment of our people along grand lines of vision and foresight. Kilowatts and nitrates became mere elements in the wider picture. In poker parlance, Roosevelt had seen Senator Norris and raised him the limit.

On the very first day of the special session, Norris had introduced his eighth and last Muscle Shoals Bill, in almost the same form as the measure which Herbert Hoover had so truculently vetoed. On April 11th Norris introduced another measure, along the Rooseveltian lines, creating a Government corporation to be known as the "Tennessee Authority." This was to consist of three members appointed by the President who were to have as great freedom in administering the Act as would a private concern in the conduct of its own business. In addition to the general power to produce power and fertilizer, to build dams and transmission lines and to sell power to any wholesale market—preferably to public bodies—the first T.V.A. Bill authorized the President to plan for and foster "an orderly and proper physical, economic and social development" in the Tennessee Valley. The purposes of the Norris law were declared to be:

> (1) The maximum amount of flood control; (2) the maximum development of said Tennessee River for navigation purposes; (3) the maximum generation of electric power consistent with flood control and navigation; (4) the proper use of marginal lands; (5) the proper method

of reforestation of all lands in said drainage basin suitable for reforestation; and (6) the most practical method of improving agricultural conditions in the valleys of said drainage basin.

This Bill was reported without hearings, on April 12, and was debated in the Senate during the first three days of May. Crippling amendments were introduced by Bankhead of Alabama and Vandenberg of Michigan but were rejected. House legislation along similar lines had been adopted, though with restrictions in the power authority of the T.V.A., and after a deadlock between the two branches of Congress the main lines of the Norris Bill were accepted in a compromise. On May 17, 1933, the measure became law.

Following its passage, President Roosevelt appointed the Board of Directors for the Tennessee Valley Authority, after consultation with Senator Norris and other Progressives. Dr. Arthur E. Morgan of Yellow Springs, Ohio, was chosen Chairman of the Board for a term of nine years and was confirmed by the Senate on May 30. Dr. Harcourt A. Morgan of Knoxville, Tennessee, was appointed for a term of six years and was confirmed on June 10, at the same time that Mr. David E. Lilienthal, of Madison, Wisconsin, was selected for a three-year period. The Board of Directors held its first meeting and incorporated the Authority on June 16, 1933. On July 1, following, the Board took over from the War Department the Muscle Shoals properties in the Tennessee Valley. The big attack was now under way.

II

Now in this new law there was one provision which was to become dramatically important: Section 2, Paragraph (h) provided that "All members of the Board shall be persons who profess a belief in the feasibility and wisdom of this Act." This provision was to prevent the private utilities from boring from within or a President from "packing" the Board with utility men by rendering the Directors liable to impeachment if they failed to support the plan as a matter of conviction as well as of duty. A somewhat similar provision, Section 6, forbade the Directors to make any test of political qualification a condition for employment in the T.V.A. This was designed to keep the Authority from falling prey to patronage-seekers or party politics. The T.V.A. was also set free of the control of the notorious McCarl, Republican Comptroller-General, whose General Accounting Office had become a means for crippling the efficiency of Government activities.

The three men whom Roosevelt had selected for the Board of Directors of the T.V.A. were men of marked ability and of sharply diverse temperament.

The Chairman, Dr. Arthur E. Morgan, was perhaps the most distinguished hydraulic engineer in the United States. He had achieved national prominence by his flood-control dams on the Miami River, after the 1911 flood in Dayton, Ohio. He was equally famous as an educator, being President of Antioch College, at Yellow Springs, one of the first American institutions of learning successfully to bridge the gap between the-

oretical instruction and practical experience as a preparation for life. He was 55 years old when appointed—an austere, self-righteous and strong-willed man, with vigorous ideas and broad practical experience in the art of taming American rivers.

Arthur Morgan's temperament had the defects of its qualities. Both as an engineer and as President of a privately endowed college, he was used to the exercise of dictatorial powers. He was intolerant of opposition and suspicious of the motives of those who disagreed with him. He seemed absolutely convinced that his own judgment was right and found it easy to reach the conclusion that divergent opinion was dishonest or insubordinate. He had a definite fanatical streak in his nature and in the early days of the T.V.A. was repeatedly rescued by his two colleagues from major mistakes in public relations and social policy. Later on there were some who felt that Arthur Morgan had "sold out" and others that he was mentally irresponsible. But his was the temperament of a John Brown of Osawatomie. Those who were not with him were against him; they were, therefore, the enemies of the Lord and, since he was conscious of his own rightness and personal disinterestedness, whatever he did to circumvent the ungodly was justified in his conscience.

These psychological facts were to become of the utmost importance five years later. In 1933 Chairman Morgan had naturally been consulted, among others, by President Roosevelt in completing the membership of the T.V.A. Board. Dr. Morgan, therefore, jumped to the not unnatural conclusion that his own voice was to be decisive in matters of T.V.A. policy and

that those who refused to go along with him would be displaced. He appeared to have no understanding of the political method of reaching decisions by majority vote or of the nature of democracy. Later on, he asked to be given a veto power over all decisions.

Dr. Harcourt A. Morgan, who was later to replace A. E. Morgan as Chairman, was a Canadian by birth who had moved to Tennessee and had become President of the State University. In that capacity he had not only become used to dealing with politicians and appraising public opinion, but he also knew Tennessee and its people thoroughly and was a deep student of the economic and social problems of the South. This, too, was to become vitally important.

As head of a privately endowed college, A. E. Morgan had gone confidently to wealthy Philadelphians to raise money for Antioch and had had many dealings with the private utilities in his engineering capacity. This had given him confidence in the good will and integrity of those who were later to try to undermine the T.V.A. On the other hand, H. A. Morgan, as head of a State University, had learned how to deal with legislators and political administrators, how to foster public opinion and how to work with other men on a basis of equality. He was an ideal judge of what the traffic would bear in Tennessee. That the T.V.A. surmounted the scandal of Arthur Morgan's virtual sabotage was largely due to Harcourt Morgan's skill, integrity and political sagacity.

The third member of the Board, Mr. David E. Lilienthal,

came straight from the Wisconsin State Public Utilities Commission. He was only 33 years old when appointed. He had studied law at Harvard under Felix Frankfurter and had done a good job with the LaFollettes in fighting for fair rates in Wisconsin. He knew the power business and the tricks of the utilities and was commonly accounted a progressive, aggressive and shrewd young man, with brains, courage and imagination.

For practical purposes, the three men divided the work. Arthur Morgan took charge of the dams and engineering, and did a splendid technical job, on the basis of preliminary planning by Army Engineers. Harcourt Morgan took over the fertilizer program and the general job of agricultural adjustment and persuasion required by an advanced program of social dynamics in a half-primitive community. Dave Lilienthal handled the power end of the T.V.A. and was soon up to his ears in lawsuits, as the private utilities set themselves to reduce the Government's policy to ignoble impotence. For it must not be assumed that merely because the utilities were publicly discredited they were without power. They could still command the most distinguished legal talent that money could buy and they had reason to believe that they could count on the Federal Courts in helping them reduce the Federal Government to a status considerably lower than that of any private corporation. For—to anticipate—the final position of the private power interests which opposed our national destiny was that the Government, which created and protected private corporations, could not itself act as a corporation.

III

The scene of what was to become one of the most exciting struggles in our economic and social history was itself dramatically beautiful. Down from Virginia and North Carolina, past the Great Smokies, the river ran, skirting the Cumberland Plateau, bending north, south and north again, battling its course from the rains and fogs of the Appalachian watershed, through the broad river bottoms and gently rolling lands of Western Tennessee, to join the Ohio at the western tip of Kentucky. Some of the most beautiful scenery in North America was embraced in this region, and some of the most primitive and ingrown communities of the nation stagnated in the presence of power sufficient to unleash an industrial revolution and raise the South by the bootstraps of the electric age.

To release that power called for dams, and dams were what people had been arguing about since the time of the Spanish-American War. Building dams was Arthur Morgan's job and he went at it hard. Wilson Dam had been completed in 1925, just in time for Henry Ford to fade from the picture at Muscle Shoals. Colonel Hugh Cooper of the Engineer Corps, who had built Wilson Dam, went to Russia to supervise the great Soviet power project at Dnieperstroy. In the meantime, the technique of building the great dams required for our great rivers had advanced into what was almost a new branch of engineering. The Hoover Administration had been forced to authorize the construction of Boulder Dam on the Colorado River, and the engineers were gaining the experience which was to make possible the wonders of Bonneville and Grand Coulee. What had

been technically impossible in 1924, when work on the Tennessee River came to an end, had become feasible engineering practice in 1933 when Arthur E. Morgan took charge.

The program involved a stupendous integration of hydraulics in a valley six hundred and fifty miles long, draining an area of more than 41,000 square miles, with a rainfall which varied between 40 and 75 inches a year and with a total population of about 2,500,000. These ranged in culture from primitive mountaineers and sharecroppers to settled modern cities like Knoxville and Chattanooga, and ranged in political sentiment from the Republicans in the highlands who were still fighting the Rebels, down to the unreconstructed Confederates of the Cotton Belt who still thought in terms of the Civil War.

Wilson Dam was but the first of a series of ten big dams designed to give the maximum of flood control, navigation and incidental power development at a minimum cost. The second dam in the series, the so-called Cove Creek Dam on the Clinch River north of Knoxville, was renamed Norris Dam in honor of the sponsor of the T.V.A. and was finished in 1936—a mass of concrete higher than Niagara—at a cost of $30,000,000. Wheeler Dam, named after General Joe Wheeler who introduced Muscle Shoals to national politics, was also finished in 1936 at about the same cost, to supplement the rather inadequate storage capacity of Wilson Dam. Fourth in the series was Pickwick Landing Dam, near the old battlefield of Shiloh, which was finished in 1938. Others in the series, under construction or authorized at the time of writing, are Guntersville, Chickamauga (near Chattanooga), Hiwassee Dam on

the Hiwassee River in North Carolina, and the Kentucky Dam near Paducah, Kentucky, and Watts Bar, on the Upper Tennessee. Not yet authorized, but projected, is a dam at Coulter Shoals on the Main River and a possible storage dam on the Little Tennessee east of Chattanooga.

The program already authorized by Congress calls for the expenditure of over $321,000,000 on eight of these dams. The completed system will provide a nine-foot channel for navigation from the Ohio River to Knoxville; it will also take as much as two feet off the crest of floods on the Lower Mississippi; and it will generate upward of 1,500,000,000 kilowatts of electricity. All in all, the construction end of this program is a man-sized job, bigger than the Pyramids and much more intricate. Credit for organizing and developing this distinguished work goes to the engineers under Dr. Arthur Morgan. They are the backbone of the T.V.A. and their accomplishments must be reckoned among the great contributions which the people of our time have made to the future of the country.

Dam building was Arthur Morgan's job and he did it well. If only he had stuck to dam building, the history of the T.V.A. would have been a far happier one.

IV

The job of improving the navigation of the Tennessee River sounds dull, until you consider that it involves a flank attack on the railway freight structure of the United States. The American railroads, though mainly built by Government help, including cash subsidies, had come under the control of private

finance and were powerful instruments for economic and political control of whole regions of the United States as early as 1880. In recent times their power has been buttressed by the existence of territorial rate-zones. These are fundamentally political, rather than economic. Broadly speaking, the Eastern or "Official" Zone includes the States which fought and won the Civil War. These States enjoy the advantage of the lowest rates and best rail facilities. The Southern railways, which were the spoils of the Civil War, operate under higher rates (nearly 40% higher) which work as a drag on Southern business and as a protective tariff in favor of Northern industry. The Western Zone represents the colonial area which the North pre-empted as the reward of its victory over the South.

The freight-rate customs boundary between the "Official" and the Southern Zones follows the line of the Ohio River west of the Virginias. The Tennessee basin is Southern, as is Kentucky, when it comes to shipping goods into the region containing half of our population and three-fourths of our wealth. But the Tennessee River joins the Ohio at Paducah and forms a highway for transportation which, if improved, will enable the industries of the Southern region—rich in coal, timber, iron, limestone and water power—to break through the iron ring forged around the South by Northern bankers, manufacturers and railway magnates after the Civil War. For heavy freight in particular, this river channel, if properly used, could be the basis for the creation of wealthy industrial communities, just as the Allegheny and the Monongahela Rivers were the basin for Pittsburgh's prosperity. For 650 miles the river road would

run through the mountains and bring the produce out to the rich Ohio Valley. The competition of this waterway could undo some of the smart work of the railway lawyers in Wall Street and on the Interstate Commerce Commission. For this method of water transportation requires no regulation as to rates in order to protect real or fictitious investments. It is simply a natural economic resource. Although there is no way of establishing the fact, it is reasonable to assume that much of the Tory hostility to the T.V.A. represents a fear lest river traffic will be used to break the grip of the privately managed railroads on our economic destinies. The Wheeler Railway Bill of 1939, by proposing to subject waterways to the Interstate Commerce Commission, suggests the real objective in this fight. What the railroads object to is the Mississippi River and its branches, in that they represent a form of transportation which can be used without the permission of bankers, lawyers and politicians.

Here is our real stake in the navigation end of T.V.A.—the system of waterways in the Mississippi Valley, with 5,700 miles of 9-foot channels and 3,000 miles of feeder channels of lesser depth. The tonnage carried on this river system has almost doubled since 1895. In 1937 it amounted to over 10,000,000,000 ton-miles and over 10,500,000 passengers.

To the T.V.A. is assigned the job of bringing the Tennessee into this system, with a 9-foot channel from Paducah to Knoxville. The big Kentucky Dam, a 184-mile reservoir, will be the longest link in the system; and it is reckoned that the resulting saving will be well over ten million dollars a year on freight

rates alone. As early as 1938 the Gulf Refining Company began barging gasoline to Guntersville and now expects to use the river to ship about 100,000 tons a year. There are phosphates, coal, limestone, marble, tobacco, cotton, hay, zinc ore, lumber, grain, iron and steel, petroleum, sugar, salt and sulphur to benefit by this river transportation system on the Tennessee River. The Army Engineers calculated that on the basis of potential traffic, as of the year 1926, the freight savings would be $9,800,000 a year, and that on the basis of normal growth they would amount to nearly $23,000,000 a year by 1950. The T.V.A. people more conservatively estimate the growth in freight traffic from 1,000,000 tons in 1933 to 9,000,000 tons in 1947, with savings of about $12,000,000 a year. These estimates take no account of the growth in local prosperity and commerce which would result from a lowering of the Northern freight tariffs.

From the point of view of national defense, this inland waterway system is considered particularly important. When the Tennessee is joined with the Mississippi system of navigation, it will become part of an internal transportation network which will relieve the war-time congestion of the railways. Reservoirs and channels cannot be torn up like tracks and the few locks are easy to defend.

The only question was whether the more economical procedure would be to build a system of thirty-two low dams for navigation alone, or the ten high dams for flood control, navigation and power. The larger number of low dams would have slowed navigation needlessly, thus reducing the savings in transportation costs. The cost of the thirty-two dams would have

been much greater than the sum set aside by the T.V.A. for the navigational account of its investment in the big dams.

Under these circumstances, the T.V.A. proceeded with the first national experiment in opening a large potential area for industry to large-scale river transportation. This, too, is something new under the economic sun, and the pattern is being repeated on the Columbia River where Bonneville and Grand Coulee extend river traffic from Portland to the inland empire and provide the basis for a new industrial development. This involves conflict with the railways' interest in suppressing all natural economic competition with their mechanical monopolies.

V

From the popular point of view, however, flood control was more dramatic than any string of barges nosing their way through slack waters and nine-foot channels to carry goods to market.

Floods recur with pitiless regularity on all great rivers, and in 1927 the big flood on the lower Mississippi, which cost about $370,000,000, had concentrated national attention on the risks of conducting intensive agriculture and building industrial cities behind levees. Flood refugees, Red Cross drives, speeches by Herbert Hoover (then a candidate and an avowed humanitarian), newsreels and banner headlines drove home the lesson of flood control as a valid national policy.

Because of the heavy rainfall in the Eastern watersheds and the great variations in precipitation, the Tennessee River was one of the worst offenders of the Great Valley, with dangerous

floods coming about every ten years. In 1867 Chattanooga had been hit by a 58-foot flood and in 1917 by one of 48 feet. So Norris Dam was built to make possible a reduction of four feet in the flood level at Chattanooga. The flood of 1936, which would have reached a 41-foot level, was actually held to 37 feet by Norris Dam—a fact which saved both valuable property and human lives.

When completed, the ten-dam program for T.V.A. will prevent flood damage to Chattanooga at a cost of $80,000,000, with complete protection (as spaciously defined by the Army Engineers) attained at a cost of about one hundred million dollars for supplemental local works.

Downstream, at the junction of the Tennessee and the Ohio Rivers, is Paducah, Kentucky, and at the junction of the Ohio and the Mississippi Rivers there is Cairo, Illinois. In the great floods of 1937, only a few inches of emergency levee stood between Cairo and disaster. Norris Dam is credited with holding four inches off the flood crest at Cairo, which represented the margin between safety and disaster there, besides lessening the flood damage at Paducah. The value of T.V.A.'s dams in incidental flood protection in the lower Mississippi alone is appraised at nearly $400,000,000.

The plan of operations in flood control is as simple as filling and emptying a bathtub. When a flood originates on one of the other branches of the Great River, the T.V.A. will let water out of the main dams, sending it into the Mississippi ahead of the flood crest. Then, when the crest is due to strike, the dams will begin storing the water so as to hold down the flow of the

Ohio. This will be done so as not to interfere with navigation unduly. It would, however, seriously interfere with power generation, which is why only an agency responsible for the welfare of all the people downstream, instead of being merely interested in the sale of kilowatts, has been entrusted with control of the dams on the Tennessee.

What flood control means in terms of economic values is hard to estimate. The Ohio Valley flood of 1937 is reckoned to have caused $400,000,000 worth of damage—a sum equal to the total Federal investment in the Tennessee River dams—not to mention the loss of human lives and the disruption of economic and social activities. No complete system of flood control is possible, but much of the recurrent damage can be held down by scientific river control. The T.V.A. decided to allocate 25% of its investment to flood control, which is modest enough when compared with one year's damage from flood.

Without going deeply into the intricate science of continental hydraulics, it is enough to say that the T.V.A. plans to let the water out of the dams in early winter, so as to be ready for the spring floods, and then use the stored water so as to provide for navigation during the dry months of summer. This equalization of the river's normal flow has already had the effect of sharply increasing the power generated at Wilson Dam. When the big Kentucky Dam is completed, the T.V.A. will be in a position to control floods on the Tennessee, to help reduce floods on the Ohio and to hold down flood crests in the Mississippi as far south as Memphis.

From the economist's point of view this is all very interest-

ing, but the question arises of whether the cost of the protection against the floods is not greater than the value of the property to be protected. Even using the very faulty yardstick of the dollar—which is a measure of labor rather than of utility (you can buy a small farm for the price of an expensive automobile; no matter how great your care, the automobile will be junk in a few years, but the farm will remain for generations if prudently cultivated and protected against damage)—even using the Almighty Dollar as the measure, T.V.A. has decided that flood control, like navigation, is good business.

Here is the calculation: An annual saving in freight rates on the Tennessee, amounting to $12,000,000, can be capitalized at 4% (the maximum Government rate on borrowed money) to represent an investment of $300,000,000. The annual damage from floods in the Tennessee Valley, in its present state of development, averages about $2,000,000. As the Valley expands its economic activities, the property to be protected should double in value. Then there is the further damage downstream on the Ohio and the Mississippi, damage caused by the waters of the Tennessee, which can be reckoned as at least equivalent. The ten dams on the Tennessee thus offer to save about $8,000,000 worth of property from destruction by floods each year. This too can be capitalized to represent an investment value of $200,000,000. Yet the total seven years' cost of the T.V.A., for all of its activities from 1933 to 1940, amounts to about $270,000,000 or little more than half of the capitalized value of navigation and flood control. If the Government were allowed to handle its accountancy on the same basis as business corporations, the

power facilities of the T.V.A. should cost nothing and charges for the power developed by the Government should be based on the public interest and without reference to any "investment" in power equipment.

As matters stand, the people of the United States are getting properties worth $500,000,000 for $400,000,000, and are receiving a gigantic power plant free, into the bargain.

VI

The construction job and river control operations were under Arthur Morgan. The power end of the program was entrusted to Dave Lilienthal. There had never been anything like it in North America. Here was a $500,000,000 conservation project which, as a by-product, would create about eight billion kilowatt hours of electrical energy. These kilowatts could be sold and must be sold if any material part of the direct financial cost was to be recovered by the Treasury. The Tennessee Valley region was a poor market for electricity and the price of power must be kept at Coca-Cola instead of champagne levels if the output was to be disposed of on any economic basis. Here, in short, the Government had to dispose of a valuable product at a low price. If it had been any commodity other than kilowatts—say, land at a dollar an acre, mineral rights, surplus Army stocks or tariff bounties—there would have been no question of the propriety of the Government disposing of its property for the general benefit of the taxpayer and for the relief of the Treasury. Now, for the first time since the beginning of the controversy over the public domain a century and

a half ago, it was urged that the Government ought not to disturb existing rate structures for electric power in the T.V.A. area.

The private utility systems in the Valley represented both the best and the worst of the Wall Street holding companies. Associated Gas & Electric was in the northeast of the Valley, Electric Bond & Share was at the western and eastern end of Tennessee, while Commonwealth & Southern blanketed the region, and the Duke interests were entrenched on the Carolina borders. The power industry was technically proficient but financially anarchic and socially irresponsible. The utilities seemed to rely for their profits on the "mark-up" of security values for Wall Street flotations. Service was concentrated on the most profitable markets, with no attempt to supply the farms with power at a price farmers could afford to pay. Wholesale rates were deceptively low and, on the whole, reasonable, but retail rates were extortionate. Alabama Power used to buy Muscle Shoals energy at 2 mills per kilowatt hour and then resell the same energy, within sight of the Shoals, for ten cents a kilowatt hour—a mark-up of 5000%! Under these circumstances, the potentialities of the power age were being ignored, while the Hoover Panic and the Insull Scandal had destroyed the credit of the power industry with the investing public. Equipment was running down, service was strangled by uneconomic rates and the capacity of the region to use the power of its own rivers was undeveloped.

Under Lilienthal the T.V.A. struck at the bottleneck of retail rates. Contracts were signed with municipalities to take T.V.A.

power at wholesale prices comparable to those of the private utilities, but the retail rates were strictly regulated by the contract and the local distribution was effected at a great saving to the consumer. Contracts were written with about sixty such distributing organizations, and negotiations were opened for the purchase by the municipalities themselves of the private utilities at Memphis, Knoxville and Chattanooga. These contracts and negotiations had a double effect. They resulted in reduction of rates for electricity throughout the nation, amounting to savings of $50,000,000 a year. Since the T.V.A. appropriations averaged only $40,000,000 a year, the profit and loss in the national economy was clearly in favor of the Government's policy, for these savings (capitalized at 4%) represented an investment value of over one billion dollars. The ten-dam system offered also the prospect of revenues from the sale of its power, amounting to over $20,000,000 a year. This income would pay all the operating costs of the T.V.A., after the construction job was completed, and return $3,000,000 a year to the Treasury on its direct investment in the Valley.

The Lilienthal system had a further effect: It revealed the extent to which the private utilities had been farming the taxes for cities and counties. Here is how the racket was worked. Suppose that air, which we all must breathe, became a public utility. Suppose that a corporation was formed to retail air to the citizens and that this corporation enjoyed such profits that it could pay generous taxes to the community, in addition to spending money to influence judges and governors and mayors to support its interests. Then suppose that the community, dis-

covering that it could get air for nothing, revoked the franchise of the corporation, pointing out that the citizens could breathe as they chose and could pay the costs of government themselves for less than it cost them to pay taxes through the corporation.

The whole issue of rates in the T.V.A. area comes down to that proposition. The private companies, enjoying local monopolies, were extracting speculative profits over and above the taxes which they, most reluctantly, paid to the community. Lower rates, under the T.V.A. system, increased the taxable wealth of the community and allowed the consumers to pay taxes directly rather than pay the share of taxes farmed by the utilities through the electric light bills. This system was Dave Lilienthal's great contribution to the T.V.A. It was an idea which caused more heated oratory, learned briefs and emotional confusion than any other phase of the program, for the public had been encouraged to forget that a public utility is simply designed to serve the public and that the enrichment of private investors in a utility system is only an inducement offered by the community to obtain service and is not the object of the utility itself. In other words, there is no such thing as a private utility. All utilities must be public, even when private capital is used to develop them. They exist to serve the public and they depend on public authority for the privilege of doing business.

This rate issue was still further confused by the notion that it was somehow the Government's moral duty to charge rates for T.V.A. power which would amortize the entire expenditure for all purposes, including navigation and flood control. This,

despite the fact that in 1930 the Government had actually proposed (under Hoover) a joint investment between privately owned power companies and the Government in dam construction. The Government was to pay the part of the cost assigned to navigation and flood control, and even so there were no takers in the power industry. A dam system for navigation alone would have cost $164,000,000; a dam system for flood control alone would have cost $140,000,000; a dam system for power alone would have cost $250,000,000. Since the whole T.V.A. dam system will cost $400,000,000, it is obvious that the Government is getting $554,000,000 worth of dams at about 70% of their cost in dollars. On the first three dams put into joint operation, Mr. Lilienthal leaned over backwards and assigned 52% of the total costs to power.

The real test, however, was the retail power rates. T.V.A. wholesale rates were close to those charged by private power companies, except that a "postage stamp" theory was adopted which did not confine low rates to communities closest to the dams but equalized them throughout the service area, with allowance for line-loss of transmitted power. Retail rates were set so as to amortize the cost of distribution and to provide operating expenses without speculative profits. This is what the private companies found most galling, since Alabama Power had uncomplainingly purchased Government power from Muscle Shoals for more than ten years. It was not the sale of Government power to a corporate middleman, at a low rate, which was objectionable. It was the sale of Government power, at a low rate, to the public. It was all right for the Government

to help power companies make a profit; it was all wrong for the Government to help individuals buy electricity at reasonable rates. The process of corporate enrichment for the benefit of Northern stockholders was "helping business," but letting the local consumers reduce their electricity bills was "socialism."

The true crime of Mr. David E. Lilienthal is shown by the following poignant little table:

	Cents Average Rate		*Average Kilowatts Per Year*	
	1933	*1937*	*1933*	*1937*
U.S. Average	5.49	4.39	595	793
Tennessee Power	5.77	2.86	612	1,353
Georgia Power	5.16	3.04	803	1,313
Alabama Power	4.62	2.97	793	1,289
T.V.A.	..	2.00	..	1,222

By making electricity available to private consumers at low prices, the T.V.A. had nearly halved the cost and doubled the use and was making a sucker out of the entire electricity business of the United States. Lilienthal had proven that the power people simply did not know their own business, unless that business was not supplying power to consumers but making Wall Street profits out of stock manipulations and security issues. This was very hard for the power people to take.

VII

Lilienthal's use of the power generated by Arthur Morgan's dams was to make legal and political history, but it was Har-

court Morgan who rendered the greatest single contribution to the work of the T.V.A.

This was the introduction, under the guise of regional planning, of the idea of social capital into our national economy. This social capital was, in turn, a logical development from the experience of the great corporations which had established what was to be known as "private socialism" over wide areas of our economic life. When, say, an oil company fells lumber in its own forests, transports the logs on its own ships and railways, creosotes them in its own plants and uses them in its own oil fields, without recourse to the profit motive all down the line, that is what we call "private socialism." It is probably represented in its fullest flower by such firms as Mitsui and Mitsubishi in Japan, and by a few great American concerns such as United Fruit and the Ford Motor Company.

"Social capital" represents an analogous process. It involves the combination of a wide number of public activities so as to create a result far beyond the purview of any legislative authorization. To combine power development with phosphate manufacture, to co-ordinate reforestation with W.P.A., to use storage dams to create recreation industries, to utilize the C.C.C., the Public Health Service and local governments, and to combine all these factors so as to produce maximum economy and efficiency, is the administrative parallel of the idea of "multiple use" in dam construction. It is "social capital." The Forest Service is authorized to plant trees, the Soil Conservation Service is authorized to hire poor youngsters to work on the public domain, the W.P.A. is authorized to engage in malaria control. When these and

many similar efforts are undertaken—not as isolated expenditures of Federal funds and human efforts—but as parts of an integrated program, the community receives a value far greater than the sum total of the money spent. This process is the creation of "social capital" and it calls for great wisdom, political tact, and an instinct for the public will.

While Arthur Morgan was solemnly proposing a separate coinage for the T.V.A. (an irreverent newspaper suggested beaverskins!), while he was drafting "codes of ethics" for the real estate operators in the Valley and was contemplating the problem of finding "suitable mates" for the mountaineers at Norris, Harcourt Morgan was working out the social investment in the Tennessee Valley. While Dave Lilienthal was outsmarting, infuriating and being harassed by the private utilities in the power fight, Harcourt Morgan was working ahead on phosphates, human nature and the conservation needs of the region. Phosphates, being a fertilizer, could offend the powerful commercial fertilizer interests, and it is significant of Harcourt Morgan's approach that, while Arthur Morgan's nine-foot channel competed with the railways and while David Lilienthal's kilowatts competed with Commonwealth & Southern, not one ounce of Harcourt Morgan's triple-phosphate went on the market to antagonize the Fertilizer Trust.

His job was to undertake the long-range rehabilitation of the Tennessee Valley. By the middle of 1939, his program was responsible for the planting of more than 100,000,000 trees, for erosion control on a million acres of farm land, with local terracing clubs working on 350,000 acres of hillsides and with

farmers in 122 watershed counties—2,800,000 acres in 19,000 farms—voluntarily devoted to soil and water conservation practices through free associations. While the legal battles of T.V.A.'s power program were raging, Harcourt Morgan made a coup comparable to Disraeli's purchase of the Suez Canal shares. He got control for T.V.A. of the process for producing triple phosphates at a low cost and worked out the technique by which power from Grand Coulee, clear across the continent, will convert nearly six billion tons of low-grade phosphate ore in the West into the product which will decide the issues of war and peace in another fifty years. For phosphorus is the measure of fertility and the basis for life, and Harcourt Morgan has gained for the U.S. Government control of the world's future fertility—particularly that of Asia and Europe—by putting us in a position to dominate the world's trade in phosphates.

This is the final evidence of the dynamics of T.V.A. The Valley has been a laboratory from which has grown the greatest single economic project in the modern world—the process by which Government power from the Columbia River can be used to exploit the phosphatic ore on Government-owned lands in Idaho, Montana, Wyoming and Utah. This is something which can change human destiny. It came from the T.V.A. No private power company could or would have done this sort of thing.

Thus the third—and least advertised—member of the T.V.A. Directorate was the man who made the greatest single contribution to the social and economic future of the nation, by use

of this new-fangled device of social capital. This alone, if nothing else had been accomplished, was justification for the investment in the T.V.A. It showed that we could learn from the River and enrich ourselves by co-operation where we had impoverished ourselves by the shortsighted waste and competition of an earlier culture.

★

COUNTER-OFFENSIVE

THE Government's financial investment in the development of the basin of the Tennessee River represented the nation's first major investment of social capital in the future of the country, or at least the first such investment since the construction of the railways. Annual savings on freight rates of $12,000,000; yearly savings through flood control amounting to $8,000,000; yearly savings on electric power bills of $50,000,000, plus a direct cash return to the Treasury of $3,000,000—all this totaled up to a social income of $73,000,000 a year for the benefit of the American people. This social income, capitalized at 4%, represented a conservative value of $1,825,000,000 which the nation would acquire for less than $500,000,000—or about 25% of the T.V.A.'s social worth.

Figures are dull and dollars make a poor yardstick, but in a nation whose economic life is conducted in dollar figures this calculation is of decisive importance. If the T.V.A. had been a private power corporation which was in a position to create such equities, its line of financial conduct would have been clear. It would have issued stocks and bonds up to a total of two billion dollars and charged lavishly for its services in order to earn

a return on its marked-up capital. If the Government had gone into business on this basis, there would have been no power fight over the T.V.A., the Authority's Board of Directors would have dwelt together in amity and would have built palatial Florida villas and bought steam yachts. Harcourt Morgan's pithy sayings would have been quoted as unctuously as those of Henry Ford, and David Lilienthal would have become a director of the New York Life Insurance Company and of half a dozen banks and interlocking utility systems.

It was precisely because the Government tried to generalize the economic benefits of the T.V.A. for the people of the region and for the country as a whole, and did not capitalize them for the financial aggrandizement of the Federal corporation in charge of the program, that the trouble arose.

At this point, another powerful personality entered the picture and became, in fact if not in form, a fourth member of the T.V.A. Directorate, a member who, in co-operation with Chairman Arthur E. Morgan, substantially modified and thwarted the economic and social policies of the Act as interpreted by the other two Directors. This fourth member of the Board was Wendell L. Willkie, head of the great J. P. Morgan holding company of Commonwealth & Southern.

Willkie was a native of Indiana, a vigorous and intelligent man in his middle forties, and a lawyer. He was a friend and contemporary of Paul V. McNutt, Indiana's New Deal Governor, later High Commissioner to the Philippines and head of the Federal Security Administration. A thorough realist with liberal ideas in politics—though a loyal Democrat—he was

expected by his friends to wind up as the leader of some labor organization like the C.I.O. As a matter of fact, it was at the Chicago Convention in 1932 that McNutt persuaded the reluctant Willkie to accept the offer of the Commonwealth & Southern job.

Rarely has there been a better illustration of the power of corporate business to deflect a man's character. Willkie was—and is—an intellectually honest man, and he subscribed to standards of business ethics which were head and shoulders above those of the recent past. He was a man of culture and energy, well read, a good writer, a forceful speaker and an attractive personality. After the big parade of utility scandals under Coolidge and Hoover, there was something clean, boyish and refreshing about Willkie's appointment to the Commonwealth & Southern job.

The fact that he hesitated to accept the position shows the caliber of the man. Commonwealth & Southern represented the last great utility merger on the eve of the Hoover Panic. Power companies throughout the Southeast (including Tennessee) were gathered into a system which was as great a regional monopoly as that of the Southern Railway itself. The usual mark-ups had taken place in introducing this corporate debutante to the public, and the usual flock of optimistic investors had been shorn of their savings (and their optimism). Commonwealth & Southern was obviously destined to meet the shock and retribution of the new public power policy in the Tennessee Valley area.

That was Willkie's tragedy. The same qualities that might have made Willkie another John L. Lewis, had he gone into labor organization, or another Paul McNutt, had he gone into Democratic politics, converted the new head of Commonwealth & Southern into the T.V.A.'s personal devil—a devil of a new type in American politics. For Willkie became the first of the great corporate demagogues, an agitator as successful in his own field of interest as were Huey Long and Father Coughlin in theirs. So far had the pattern of American life changed that it was no longer the politician who won a following by denouncing Big Business but the business politician who earned his salary by denouncing the Government.

Character and abilities which should have been placed at the service of the nation, and been well rewarded, were devoted to the essentially unproductive task of bullyragging and thwarting a mature and well-considered national program of conservation and development of our resources. This heckling program of Commonwealth & Southern was designed to enrich a handful of security holders in a private corporation at the expense of the taxpayers of the United States. For this essentially uneconomic motive—since the stockholders were in possession of lavishly watered stock which did not represent actual investment—the T.V.A. program was harassed for six shameful years until Mr. Willkie won his point and nicked the Treasury of the United States for ten million dollars more than the Government engineers thought the Commonwealth & Southern properties purchased by T.V.A. were worth.

II

The drama of the Tennessee unfolded as inexorably as a Greek tragedy. The battle was not only with the river but with some of the least lovable aspects of acquisitive human nature as crystallized in powerful corporations.

When T.V.A. took over Wilson Dam at Muscle Shoals, it found the Government "selling" power there on a giveaway basis to the Alabama Power Company (a C. & S. subsidiary) at about 2 mills per k.w.h., and found the company reselling that power to residential consumers for 10 cents per k.w.h.—a mark-up of nearly 5000%—and to isolated farmers for as much as 35 cents per k.w.h.—a mark-up of 17,500%! This may have been "good business" for the company but it was bad economics to convert an almost unlimited supply of cheap power into an expensive rarity.

So, on January 4, 1934, T.V.A. and Commonwealth & Southern entered into an agreement whereby the Authority was to buy certain facilities to set up a "yardstick," to interchange power and divide the market. This agreement was to end three months after the completion of Norris Dam, and on August 1, 1936, T.V.A. gave notice that the contract would expire on November 3, 1936 (just about election day!). The contract was later extended for three months—to February 4, 1937—at Arthur Morgan's insistence on power-pool negotiations with Commonwealth & Southern. But when the latter got a court injunction against the whole T.V.A. power program in December, 1936, President Roosevelt called off the pool negotiations and went ahead with the original plan.

Almost from the start the 1934 agreement had been subverted by Mr. Willkie. The agreement to sell T.V.A. certain facilities was enjoined in the Federal Courts by the so-called Ashwander Case. This suit was supposedly brought by preferred stockholders of the Alabama Power Company, but it was later discovered that the Edison Electric Institute (which was partly financed by Commonwealth & Southern) had paid $50,000 to the law firm pressing the action. The Institute also hired Newton D. Baker and James M. Beck to write a legal opinion holding that the T.V.A.'s power program was unconstitutional. A Federal judge named Grubb granted an injunction in the Ashwander Case during the winter of 1935, forbidding the Company to fulfill its contract with the T.V.A. A year later the Supreme Court reversed Judge Grubb's decision; in the hearings before the tribunal Commonwealth & Southern asked to be forbidden to live up to its own contract with T.V.A.!

Similar legal difficulties arose as a result of efforts by the Authority to acquire distribution facilities in Knoxville and Memphis from Electric Bond & Share. The whole power program was soon enmeshed in a network of fifty-seven different injunctions and lawsuits which were not settled until the spring of 1939, when the Supreme Court contemptuously dismissed the appeal of the Fourteen (originally Nineteen) Utility Companies which had met defeat in attacking the "constitutionality" of the T.V.A. in a lower court. Knoxville, Chattanooga and Memphis were but the high lights of a process which ran through scores of smaller communities and involved rural elec-

trification projects, P.W.A. loans for the construction of municipal power plants and nation-wide agitation. The very business interests which most vigorously upheld "sanctity of contract" were indefatigable and incredibly resourceful in trying to block the execution of contracts with the T.V.A. There has, incidentally, never been a clearer proof of the extent to which American business shrinks from competition and endeavors to outlaw rather than undersell its rivals.

Through the whole sordid affair ran a strong vein of bad faith and double-dealing. Mr. Willkie had persuaded Arthur E. Morgan to pull for a plan to create a regional power pool of T.V.A. and private power, modeled on the British grid system. This was a good plan and followed economic lines, but while it was being discussed by the Government and the utilities in apparent good faith, Willkie's companies pressed for and were granted a Federal Court injunction against the whole T.V.A. program. This injunction, as previously stated, led the Government to suspend negotiations and to drive for the reform of a judicial system which lent itself to such chicanery and such disregard for the public interest. As late as the autumn of 1938, when the City of Memphis completed a deal for buying out the private utility (Electric Bond & Share) which served the municipality, Willkie blocked the deal by leading Ed Crump, the famous Memphis political boss, to believe that the city had paid too much. Commonwealth & Southern posters announced that "Wall Street is Chuckling" over the Memphis settlement. And when Willkie himself stuck the Government for $10,000,000 of Federal gravy in his watered stock, he gloated so loudly and

so publicly that the entire deal was again put into jeopardy.

In addition to being insincere, this was also very expensive. To begin with, the Federal judge—this time also a well-named man, Gore—who issued the 1936 injunction against T.V.A. cost the Authority $200,000 a month in lost revenue. T.V.A. engineers estimate that if all of the Authority's contracts with the utilities had been faithfully carried out, the power consumers in the region would have saved a million dollars a year in lower rates. In 1937 the T.V.A. reported its calculable financial loss in revenue and legal expenses as a result of injunctions at $2,500,000.

The loss was not all on the Government's side. Over a period of three years, the private utilities spent over $600,000 in fighting the T.V.A. In Memphis alone the utility spent $400,000 on legal expenses during that period, and it was reckoned that from every $5 it collected from consumers, one dollar went to the lawyers and another to Wall Street. Wendell Willkie admitted spending $20,000 of his stockholders' money to fight the T.V.A. in Chattanooga, in an effort to influence a municipal vote on the question of public power in 1938. To fight the big suit of the Nineteen Companies, the T.V.A. had to use more than $252,000 of the taxpayers' money for legal expenses.

The whole business was a corporation lawyer's paradise, a happy hunting ground for big fees which made the T.V.A. issue a legal Klondike. Yet the Government won its case so completely, when the issue finally reached the Supreme Court, as to cast doubt on the integrity and intelligence of the entire legal profession. Not only were the injunctions dismissed but

the companies were advised that they had no standing on which they had the right to bring action in the first place. If the Bar Association had been alert, it would have been forced to try some of its own leaders on charges of barratry—stirring up ill-founded litigation for the sake of fees.

The sad truth was, however, that while T.V.A. was winning its case in the courts it was losing its case in politics. Willkie's cat-and-mouse tactics had the effect of wearing down the Government and of promoting sharp differences of political opinion within the T.V.A. Board and the Democratic Party. Once these splits were established and widened, Commonwealth & Southern, which until then had temporized interminably, leaped for the jugular vein and Willkie got what he wanted—*his* price—at the expense of the people.

III

The backsliding of Major Berry and the apostasy of Arthur Morgan were the factors which Willkie exploited so as to cost the American people $10,000,000 in cold cash and to jeopardize their great investment in the social control of the Mississippi Valley.

Major George L. Berry is a new and incidental figure in the T.V.A. saga. A war veteran and a successful practitioner of the art of labor politics, he had done a very efficient job in sewing up the New York Printing Pressmen's Union and was responsible for the only 100% successful strike of the metropolitan press that I have ever heard of. With that venture in the bag and with valuable fraternal and Legionnaire connection, Berry

changed his venue to Tennessee and was sent to the United States Senate in 1937. Berry was a practical politician, the sort of man who plays marbles for keeps, and he was publicly devoted to the cause of the T.V.A.

His devotion ran far beyond mere lip service. He played the old "right-of-way" game familiar to all good rural politicians. In the first part of 1932, he—as a member of a shrewd little speculative group—acquired mineral and marble leases along the Clinch River, on lands which were due to be flooded by Norris Dam, when and if erected. It was a clear case of intelligent forestalling. At the time, Berry was not connected with the Government and the Government was not committed to the Norris Dam venture. Berry and his friends simply took a chance that Hoover would lose in 1932 and that the dam would be built.

In the course of settling claims for the flooded area above Norris Dam late in 1934, the T.V.A. got its first hint of the Berry group's claim for compensation on account of the loss of their marble quarries. Commercial value for those quarries had prudently been established by means of contracts for Post Offices and other Government buildings. Early in 1935, the Authority offered to let the Berry group use Norris Lake for transportation of the marble from unflooded quarries in return for a waiver of all claims, none of the quarries below the prospective water line being in operation. This offer was refused and Berry's friends submitted a report valuing their flooded properties at exactly one-third of five million dollars. Condemnation proceedings were recommended by the T.V.A.

Shortly thereafter, Major Berry wrote Arthur Morgan—that high-minded man who was worried about the ethics of real-estate operators—asking for action on the claim of his associates. In the autumn of 1935 the T.V.A. got a report from Government geologists that the claims had no commercial value and condemnation suits were filed. In the spring of 1936—an election year and the year when Norris Dam was due for completion—Major Berry approached Mr. Lilienthal and asked for a conference. After some jockeying for position, it was agreed to appoint a "conciliator" to establish the value of the marble. The case dragged on for several months and in February, 1937, another conference was held at which Arthur Morgan violently opposed "conciliation" and Major Berry walked out of the meeting.

Thus the conciliation agreement fell through and condemnation proceedings began in May 1937. Trial was held in December and resulted in a verdict for the T.V.A. In consequence, Berry attacked the T.V.A. politically and was defeated for renomination to the Senate in 1938. During the trial, Arthur Morgan was strangely eager to testify and sought to establish the "bad faith" of Major Berry (he never seems to have questioned the faith—good or bad—of Wendell Willkie). Finally, on March 3, 1938, the report was filed, showing that the marble claims were not sustained. Major Berry's farsighted speculation in T.V.A. futures had been blocked, and that was that.

The whole situation had been extremely delicate. Berry was a powerful Senator, a strong advocate of the T.V.A. and was known as a New Dealer. He was also a shrewd businessman

who sought, like Willkie, to use political means to enhance the value of his claims against the Government. But Arthur Morgan was sniffing at a moral issue to use against Lilienthal and was burning to tell the country about his view of the case. The stage was thus set for the next act of a strange psychopathic drama. The fact that Berry, balked of his marble claims, turned against the T.V.A., was confirmation of Arthur Morgan's suspicion of his general attitude, but was not proof that the claims themselves were dishonest or that the other Directors had endeavored to connive at dishonesty by discussing conciliation. It is curious to note that the newspapers which were loudest to condemn Berry for attempting to make a political profit on his watered marble were even louder in their support of Willkie's demand that Commonwealth & Southern receive a political profit on its watered stock.

Yet when the whole matter is analyzed, there was nothing in the Berry business which is not common experience in every highway contract. And the fact remains that Major Berry, though a Senator, did not get his price and lost his submerged quarries as a result of the normal operations of the T.V.A.

IV

This, however, was the spark which touched off the apostasy of Arthur Morgan and led to the major administrative scandal of the New Deal.

At an early stage in the T.V.A., Harcourt Morgan and David Lilienthal had entered into a "conspiracy" to administer the law as it was written and not as Arthur Morgan felt it ought

to be administered. The two members had established a coalition which regularly outvoted the Chairman at Board meetings. This was very hard for a man of Arthur Morgan's moral arrogance to accept. And in the spring of 1936, when Lilienthal's three-year term ended, the Chairman asked President Roosevelt not to reappoint the impious Wisconsinian who had presumed to oppose the former head of Antioch College. The President, notwithstanding, reappointed Lilienthal for a term of nine years. Then, as already told, Arthur Morgan was persuaded of the good faith of Willkie's power-pool plan and insisted on the negotiations which fell through when Willkie's companies joined in securing the injunction against T.V.A. in December of 1936.

From that moment, by the laws of politics, Arthur Morgan was out of the running. He had associated himself with an attitude and policy which had proved mistaken. The President henceforth put his confidence in Harcourt Morgan and David Lilienthal, so the Chairman of the T.V.A. decided that he was the victim of iniquity and double-dealing and that Lilienthal was to blame. During the Berry case, Arthur Morgan had apparently expected to break a scandal which would destroy Lilienthal. During the power company case, Arthur Morgan impugned Government witnesses and tampered with their evidence and seemed disposed to "throw the case," so far as power was concerned. He made general charges implying that Government evidence was perjured and coerced but refused to substantiate those charges, and he allowed himself to be involved in unauthorized contacts with representatives of the utilities at

times when it could embarrass the T.V.A. He absented himself from Board meetings and then complained that meetings were held in his absence. He thus allowed himself to be used by interests opposed to the program which he was sworn to execute. He obviously believed that he was animated by a high sense of duty, but to the public he appeared as a petulant old man seeking personal revenge on those who disagreed with him.

The Chairman's conduct in the Berry case and the statements he circulated concerning his fellow Directors—statements which amounted to "grave and libelous charges of dishonesty and lack of integrity" on the part of Harcourt Morgan and David Lilienthal—became so notorious that in March, 1938, the President was compelled to summon all three T.V.A. Directors to the White House for an executive inquiry into the proper execution of the laws. At these hearings—on March 11, 18 and 21—Dr. Arthur E. Morgan brought shame upon his reputation and disgrace upon the Government by his contumacy in refusing to answer the President's questions or to substantiate the charges which he had made. The full shame was evident only later when, having succeeded in forcing a Congressional investigation of the T.V.A., the white-haired old educator publicly withdrew all the charges of personal dishonesty which he had made. No man, not even Wendell L. Willkie, can read the transcript of those hearings before the President without a feeling of disgust at the Chairman's attitude towards the Chief of State who had appointed him and towards the law which he had sworn to obey.

It was shown that Arthur Morgan had published attacks on his fellow Directors in *The New York Times* in January, 1937, in the September, 1937, issue of the *Atlantic Monthly,* in a speech at Chicago and in a public letter to Congressman Maverick of Texas in March, 1938. When the President asked him to state the facts on which he had based his libelous statements, Chairman Morgan refused to give evidence and simply replied that "this meeting is not . . . an effective or useful fact-finding occasion." When the Berry Claims were discussed, Arthur Morgan simply said that he was "an observer to the proposed inquiry into facts and not a participant," and repeatedly refused to give the President who had appointed him any evidence to justify the attack on Harcourt Morgan and Lilienthal.

The real story behind Arthur Morgan's disgrace is hinted at in these White House hearings. Harcourt Morgan quoted from a public letter by Wendell Willkie which commented on Arthur Morgan's article in the *Atlantic Monthly*. In this letter, which was written *before* the article was published, Willkie said: "Dr. Morgan, a public official, questions the honesty of other public officials. If he is correct, etc." Mr. Willkie had been shown the Morgan article in advance of publication and was cleverly making use of the Chairman's pique in order to advance the interests of Commonwealth & Southern. Willkie had, in fact, enlisted the Chairman of the T.V.A. as an unpaid member of the publicity staff of Commonwealth & Southern. Indeed, so deep was the respect for Arthur Morgan's "integrity" that he seemed destined to be the Judge Landis or the Will Hays of

the power trust. And then he recanted his charges of dishonesty against the other Directors. Those charges were, apparently, designed as bait to force a Congressional investigation of the T.V.A. and were invented (or planted) in the Chairman's feverish imagination. His insolence and insubordination toward the President had the same object: to force Congress to come to the rescue of Wendell L. Willkie. For Arthur Morgan did not like being outvoted and was convinced that there was some cosmic wrong in a situation which forced him to subordinate his own decisions to the will of the majority of the Board.

The upshot of the matter was that the President summarily removed Dr. Arthur E. Morgan from the Board. The deposed Chairman sued for restitution and damages, but got nowhere. He received the cheap and brief applause which the enemy accords to traitors and then he sank out of sight.

It is impossible to escape the conclusion that David Lilienthal was partly to blame for Arthur Morgan's psychotic vindictiveness. A shrewder and suppler man would have avoided arousing the old engineer's antagonism. One feels that Lilienthal, behind his undoubted devotion to the public interest in the power issue, was waving red flags and planting deft banderilleras in the Chairman's far from thick hide. Yet when all is said and done, the T.V.A. attitude is best summed up in the words of a loyal supporter of the Lilienthal point of view: "I know of no one who has done the T.V.A. so much good—and so much harm—as Arthur Morgan."

The only person who gained from this administrative tantrum in the ranks of his adversary was the astute Mr. Willkie.

Mr. Willkie soon dropped Arthur Morgan like a worn-out tool and found other instruments to serve his purpose. The Chairman had dragged T.V.A. into politics, deliberately, at the very moment when it was winning its greatest legal victories. For this offense against orderly, honest and decent administration of the public domain, Dr. Arthur E. Morgan will never be forgiven by those who believe that public office is a public trust and that the Government of the United States should not be prostituted to petty personal passions. I hope that Commonwealth & Southern and the Edison Electric Institute will pay the former T.V.A. Chairman a generous pension. He has earned it.

V

Arthur E. Morgan's public reflections on the honesty of those with whom he disagreed on matters of T.V.A. policy had given rise to a well-organized movement in Congress for an "investigation" of the affairs of the Authority. When he refused to answer the President's friendly and informal questions or to cite any facts in support of his hallucinations, his "contumacy" roused Congressional opinion to fresh heights of anticipation. An election was coming on in the autumn and the business recession which had followed the Administration's foolish effort to balance the budget gave rise to well-founded plans for large opposition gains. The President himself, balked by the betrayal of the conservative Democrats who had run out on his program, was contemplating a "purge" of the Party. Arthur Morgan opportunely produced for the benefit of the opposition the old

Republican dream of uncovering "another Teapot Dome" which would involve the Democrats, a scandal which would besmirch the whole New Deal and hold up to public scorn its professed idealism. At that time, few Americans outside those who were familiar with affairs in the Valley dreamed that the peculiar Chairman of the T.V.A. regarded it as evidence of dishonesty and corruption when others disagreed with his judgment on matters of policy.

Under the circumstances, the pressure for a Congressional probe proved irresistible. The Administration did not, as a matter of fact, try to resist it, as they were convinced that any inquiry would bring out nothing substantial to the discredit of the T.V.A. and would prove a boomerang in public opinion. (In this, they reckoned without the one-way press.) Moreover, the case of the Nineteen Companies was rolling up to the Supreme Court and the Congressional hearings would provide a background in public opinion for the judicial decision which would inevitably sustain the T.V.A.

On April 4, 1938—two weeks after the end of those poignant sessions in the President's study at the White House, when Arthur Morgan had sat white-lipped and with that queer gleam in his staring eyes, despite the pleas of the President and the evidence of his fellow Directors—a Joint Resolution was passed by Congress creating a Special Joint Committee of the Senate and the House to investigate the T.V.A. The Committee was instructed to look into all the charges made by Arthur Morgan, as well as the counter-charges of obstruction and sabotage brought against him by Harcourt Morgan and Lilienthal, and

was further authorized to examine the conduct of the power companies in respect to T.V.A. It was a full-dress investigation which was promised, and so much public attention had been riveted on the issue that Committee members dared not use it as a junket. The sum of $50,000 was appropriated (later increased by an additional $25,000) to finance the hearings, and Francis Biddle of Philadelphia, a brilliant, wealthy and liberal lawyer, was selected as counsel.

To insure approximate fairness and to prevent the hearings from degenerating into a mere political "fishing party," the five Senators and five Representatives on the Committee were carefully selected. Senator Vic Donahey of Ohio—conservative, elderly and level-headed Democrat—was named as Chairman. Representative Mead of New York (later elected as Senator) was the Vice-Chairman. Senators Schwartz of Wyoming and Frazier of North Dakota represented the Western interest in river conservation. Jim Davis of Pennsylvania—along with Frazier, who was a "ringer"—represented the Republican interest. On the House side, Driver of Arkansas and Barden of North Carolina represented the Tennessee region. Thomason of Texas represented the Southwest. Senator Brown of New Hampshire, a friend of the T.V.A., served until defeated in the 1938 election and then resigned from the Committee. For the Republicans, Jenkins of Ohio and Wolverton of New Jersey, spoke for the utilities. In submitting the final report, strong pressure from their political and financial backers led to the filing of a separate report by three of the four Republicans on the Committee. One of the four—Frazier—sided with the Democrats,

and Jim Davis was disposed to agree with the majority report but allowed himself to be talked into taking a partisan view of the facts in the final 6-to-3 vote which supported the official report. This document was issued almost exactly a year after the investigation was authorized and appeared on April 1, 1939.

Under the circumstances, the hearings and the final report were an unprecedented piece of responsible political administration. For a Congressional inquiry is not solely concerned with finding, weighing and reporting the facts. It seeks to attack or defend a political position, it tries to locate and hold the headlines, to manufacture party capital and to enhance the reputation of its members. The truth is secondary. This particular T.V.A. investigation operated, moreover, against a double time element. There was the political campaign of 1938, including the famous "purge" of the Tory Democrats, culminating in the bitter election of November. And there was the case of Nineteen Power Companies coming up before the Supreme Court. Until both the election and the judicial decision were history, the T.V.A. Committee could not report, for fear lest their findings might be discredited, as propaganda designed to influence the voters and sway the judiciary.

This condition meant that the Committee was forced by its political necessities—the Democrats by their Party's position before the nation and the Republicans by utilities with millions of dollars at stake—to do an unusually thorough, careful and enlightened job. This job required elderly legislators to swelter in the heat of Washington and Tennessee all through July and August and to return to the task during the winter months at

the Capitol. Political casualties were unusually heavy. Representative Driver of Arkansas was defeated by utility money in the primaries, resigned and was replaced by Barden of North Carolina. Senator Brown of New Hampshire was defeated in the November elections, resigned and was replaced by Jim Mead of New York, who, after his own election to the Senate, left his House membership vacant for the balance of the hearings. By a curious paradox, the New York Republican lawyer, John Lord O'Brian, who argued the Supreme Court case for the T.V.A., ran for the Senate in New York and was defeated in the election. Senator Pope of Idaho, himself defeated for the Democratic nomination by a typical piece of skullduggery, was picked by Roosevelt to fill the vacancy on the T.V.A. Board, while Brown was made Comptroller-General, in charge of the General Accounting Office which had been one of the undercover instigators of the original investigation of the Authority.

VI

The hearings represented, therefore, a cross section of the political life of the nation in action. Here was no tribunal, but a group of men whose political lives were in jeopardy and who would rise or fall as a result of an election in which their hearings played an important part. Here again there was the paradox of making Senator Brown Comptroller-General. One of the partisan charges against T.V.A. was that it had refused to co-operate with Elliott, the Republican Acting Comptroller, whose office had long served as an effective branch of the G.O.P. National Committee. After the fight was over, Brown

replaced Elliott in charge of this undesirable and unnecessary agency and promptly succeeded in establishing better working relations with the T.V.A. Another by-product of politics was the selection of Senator Pope to go on the T.V.A. Board in Arthur Morgan's place, after Harcourt Morgan had been named Chairman by the President. Pope was an expert on phosphates and was deeply involved in the project for phosphate development in the Northwest. He was defeated by the utilities, plus Borah, plus the Townsendites, and moved on to a post of greater usefulness.

The hearings were thorough and were supplemented by visits to all of the T.V.A. dams and by voluminous technical data, including much mendacious stuff sponsored by the utilities through shifty yes-men. So far as the claims of the power trust are concerned, they amounted to a demand that the Government base its power rates on the entire investment in the Tennessee Valley, even when they admitted that no private power company would consider such a dam as that at Gilbertsville as an investment in power. Shady stuff, most of it, constipated with figures and solemnly pushed across the board by academic stooges who failed to realize that, if they were correct in their arguments, they were simply demanding that the Government should behave as though it were another Wendell L. Willkie—out to make money from power at the expense of the public.

On all the charges involving moral turpitude on the part of the Directors, the Committee gave a clean bill of health. The report sustained the T.V.A. as thoroughly and as fairly as any-

one could desire, without evasion or whitewashing. There was, much to conservative disappointment, no "Teapot Dome" in the New Deal's regional planning adventure. After Arthur Morgan had publicly retracted his own imputations against Harcourt Morgan and Lilienthal, the spice went out of the investigation and it became a forum for discussing the principles and issues of the T.V.A. experiment.

Though there was no scandal in the Republican sense, there was plenty to suggest that human nature—including some of its least admirable manifestations—is not abolished when economic matters are handled under the guise of Government instead of business. When it is business that acts, we take for granted a degree of greed, trickery and ambition; we take the Willkies for granted and tend to admire them when they get away with it. When it is Government that acts, we see that we have no right to be so complacent in accepting the worst instead of the average of human nature. Let's get this issue straight, for it is the heart of the T.V.A. problem. In politics there are higher ethical standards than in business, since politics depends on the co-operation and trust of many people. The aptitudes which enable a man to amass a million dollars are not calculated to work in politics. In politics a man's word must be trusted. When we discover our politicians acting on the same low plane which satisfies the big-time corporation lawyer or the successful utility magnate, we generally send them to jail or hound them out of public life. Only a few really great economic administrators can afford to be just and scrupulous, but

we expect it of the rank and file of our public officials as a matter of course.

There are serpents in every Eden and the Committee discovered them in Tennessee. In spite of their withholding final moral judgment on the moralist of Yellow Springs, the Committee showed Dr. Arthur Morgan in a rather unflattering light. They proved that his charges were not supported by anything beyond an old man's pique at not getting his own way.

The conduct of the General Accounting Office was proven to be indefensible, and the hearings revealed this queer Republican agency throwing open its confidential files to lobbyists for the utilities, sending so-called "investigators" into the Valley in the hope of "getting something" on the T.V.A. and endeavoring to harass and hamper the efficient operation of the T.V.A. for obvious political motives. One particularly malodorous incident was unearthed in which the Comptroller-General had ordered a report derogatory to T.V.A. published immediately, in the face of his own General Counsel's warning that the report was inaccurate and should be rewritten.

Equally scathing—though not so shocking, since businessmen were involved—were the Committee's findings on the conduct of the private utilities (especially Mr. Willkie's Commonwealth & Southern) in obstructing the Government for selfish pecuniary reasons.

False and lying propaganda against T.V.A. was found in publications of the notorious Edison Electric Institute and of the Commonwealth & Southern Corporation. It is dryly set down as a fact that the Government had been forced by the

utilities to spend large sums of the taxpayers' money to defend the fifty-seven lawsuits brought against T.V.A. by the utilities, at a total loss to the Authority and to consumers of over $13,000,000. The electric power "yardstick" was found to be legitimate and fair, and the whole case of the utilities was reduced to the painfully familiar level of the dog in the manger.

Unfortunately for the country, public opinion never had much chance to hear about the findings of the Committee. Corporations which control politicians also influence newspapers, and the people outside of the region were left with the impression that the T.V.A. was involved in waste, fraud and something very close to a scandal. In a country like the United States, political trends are formidable things and take little account of the facts. T.V.A. was the most dramatic and useful thing the New Deal had accomplished. Never at any time has the public had a chance to understand what T.V.A. means to America.

VII

If there was any one thing in the New Deal which was calculated to excite the interest and challenge the admiration of the American press, however, it was the T.V.A. It was big, it was new, it was daring. It was the victorious continuation of the political fight against the vested interests and the power trust which had almost monopolized liberal mythology for a generation. It was a new kind of pioneering, on a broad scale, and newspapers which had unflinchingly reported Byrd's dreary exploits in the Antarctic and had devoted columns to advance puffs for second-rate prize fighters might have been expected

to show some interest in our Valley adventure. For T.V.A. was —and is—exciting, as big as anything the Russians have achieved and more realistic than any of the fascist experiments in fundamental economics. It was the answer of American democracy to the question of the twentieth century. In a decade which was to witness one dispiriting retreat after another in the face of the totalitarians, T.V.A. was "news," and good news, too.

It is not enough to say that the South Pole doesn't offend the advertisers or that T.V.A. didn't offer a good box office attraction. And it is not enough to assume, with the radicals, that the business offices of American newspapers had sold out to the utilities or that the editors were blinded by the political commitments of their owners. With all of its faults, the American press can take legitimate pride in its honest handling of "spot news," and yet the T.V.A. was a river of spot news which ran to waste, almost exactly as the energy of Muscle Shoals had gone to waste.

The plain truth was that the American newspapers—their editors, reporters and special correspondents—were not in the least qualified to handle economic and social news. Even their handling of political news had become obsolete journalism. Philip Guedalla, in a fine phrase, once wrote that Marshal Ney's conception of the art of war was almost purely pugilistic. A generation of Washington correspondents had grown up since the great events of the World War, a generation of legmen and police reporters who thought of politics almost exclusively in terms of Republican and Democrat, and who were at home in describing the clash of ambitious rivals. But they had

taken for granted the permanence of the policies and interests which they believed those Parties to represent, just as the business editors had taken for granted the ultimate value of stock market quotations and dollar values as the measure of national prosperity. The New Deal caught them mentally and morally unprepared and confused them with a brand-new idiom and with concepts of public welfare other than the week's carloadings or the sale of pieces of engraved paper at the ticker, concepts of political action other than the labels of bygone ideas.

For example, when the National Labor Relations Board really began to enforce collective bargaining in profitable industry, and when the rise of the C.I.O. embarked the country on a new era in labor organization, it was suddenly discovered that there was only a handful of American reporters who really understood the labor situation and could write of current labor developments in terms that made sense to the public. This was equally true of the T.V.A. Of necessity, the Valley program dealt in terms of planning rather than partisanship, of co-ordination rather than controversy, of economic and social measures rather than knock-down-drag-out polemics. There were few if any newspaper reporters competent to handle the T.V.A.; and until the Congressional investigation of the Authority in 1938, it is doubtful if as many as ten of the nationally known Washington correspondents had ever set foot in the Valley, let alone made even a superficial study of the Authority's program and achievements.

It is this, rather than sheer malevolence or corruption, which explains the instinctive hostility of so much of the American

press to the T.V.A. This hostility expressed itself in many ways. When a Republican Senator charged that the T.V.A. had paid $12,500 for a jack, presumably for breeding purposes, and had resold it for $300, there was plenty of publicity given to this "example" of inefficiency. Few papers played up or stressed the prosaic explanation that the item was not for raising mules, but was a hydraulic jack used in heavy construction, while the live jackass (not in the Senate) was sold at a $50 profit. When Arthur Morgan tipped off the papers that there would be a juicy scandal in the Berry Marble condemnation suit, the reporters flocked to Knoxville, but very few of the papers played up the fact, later established, that at that suit A. E. Morgan had tried to get witnesses to withhold their evidence from T.V.A. counsel, apparently in order to strengthen his charges against his fellow Directors.

It is quite true that when Arthur Morgan made his final recantation, the editorial pages of a handful of honest newspapers gave currency to the facts and vindicated the T.V.A. But the vast majority of press comment continued to parrot the cry of "Where there's smoke there must be *some* fire!" and in some instances simply ceased to report the T.V.A. investigation after the evidence turned against the deposed Chairman and the utilities. *The New York Times* sent one of its star reporters —Russell Porter—to cover the investigation at Knoxville, but quickly shot him out to San Francisco as soon as the Morgan charges blew up. In much the same way, the *Times* had pulled its star labor-reporter—Louis Stark—out of Detroit the moment the sit-down strikes began, and other Northern newspapers

failed to report the occasion when the Southern Conference on Human Welfare gave Supreme Court Justice Hugo L. Black the Thomas Jefferson Medal for liberalism.

It must be repeated that these incidents are not proof of social malevolence or even of political bias. They are, rather, evidence of journalistic immaturity and parochialism—perhaps of an immature and parochial public opinion—with respect to the new values in our national life. In other words, the press became the prisoner of its own practice of giving the front page to five-alarm fires and snappy sex murders, while burying the reports of what men live by and die for in the back pages of the second news section. Yet this mood, this attitude, this sense of news values, played very precisely into the hands of Wendell Willkie and the utilities, whose chief interest in the Tennessee Valley was other people's money and who hoped either to compel the Government to surrender its properties to the utilities or to buy them out at a handsome profit to their stockholders.

VIII

The attempt to compel the Government to surrender was enmeshed in a fantastic series of court actions, culminating in the Supreme Court's crushing decision in the case of the Nineteen Companies, a decision which gave the Authority the judicial green light in January of 1939, nearly six years after its operations had begun. It is a comment on the inadequacy of the American judicial system that it should compel the Government to act for six years without knowledge of whether its actions would be held legal.

Where Wendell Willkie was most truly brilliant was in his use of legalistic delays and political demagogy as a method of bringing pressure on the T.V.A. for his real object: to sell to the Government the decrepit properties of Commonwealth & Southern at a price which would cover some of the "mark-ups" in stock values. His daring is shown by the fact that he selected the month following the great Roosevelt landslide election of 1936 for getting the injunction against the T.V.A., at the very moment when he was ostensibly engaged in friendly negotiations with the Authority.

T.V.A. engineers pay tribute to Willkie's resourcefulness and skill in stalling, evading obligations, making plausible but impossible proposals, and confusing the issue. The initial trick of having one of his subsidiaries agree to sell transmission lines to T.V.A. and at the same time financing a suit to prevent the sale, is typical of Willkie's legalistic methods.

From the collapse of the power-pool plan of 1936 until the decision of the Court of Appeals in 1938 upholding T.V.A., negotiations were at a standstill. Then Mr. Lilienthal proposed to buy for the T.V.A. all of Commonwealth & Southern's electric properties in the Valley region. Then the question of price became important. T.V.A. suggested the actual original cost of the properties, less depreciation, and it was agreed that fact-finding should proceed. The T.V.A. hired a thoroughly reputable firm of auditors to go over the Company's books and it was found that the physical cost of the Tennessee Power Company properties, new, was about $83,000,000 and that depreciation had reduced its value to something like $57,000,000. This

figure was far from satisfactory to Mr. Willkie who proposed a basis of value which ran his price up to $106,000,000 and who refused even to consider the T.V.A. audit (which was based on the methods of valuation recommended by the Federal Power Commission).

Willkie then came back with a "Chinese Wall" proposal, which served to delay settlement of the price question, by demanding that T.V.A. bind itself not to expand beyond the area covered by the properties to be purchased. Then Willkie demanded what he called "severance damages" for transferring his company's property to the T.V.A. Finally, he proposed arbitration by a number of agencies, including the S.E.C., knowing that the T.V.A. could not legally bind itself to accept arbitration and knowing also that the mere suggestion that T.V.A. agree to arbitrate the Berry Claims had been the basis for Arthur Morgan's fantastic charge of fraud.

After considerable jockeying, bickering and much hard feeling, the T.V.A. raised its offer to $67,000,000—a sum which its rate-engineers felt was considerably greater than the value of the Commonwealth & Southern properties in Tennessee. Willkie came down to about $87,000,000 and there the negotiations stuck until the Supreme Court's decision removed the last cloud on the legality of the Authority's power operations.

At this point, David Lilienthal decided on a bold stroke. He would halve the difference and raise the T.V.A. offer to $77,000,000, paying Willkie $10,000,000 blackmail as "nuisance value." The final figure of $78,600,000 was determined by negotiation. Strangely enough, neither Arthur Morgan, the Congress

nor the newspapers which had been so outraged when Major Berry tried to get one-sixth as much profit for his marble, found anything wrong with Mr. Willkie's success in gypping the taxpayers. Perhaps Berry's fault was that he asked too little.

Lilienthal's decision was statesmanlike. The tide of Congressional opinion was turning hostile towards the T.V.A. as the befuddled Representatives began to worry about the financing of their 1940 campaigns or tried to give value for the contributions they had received in 1938. If the dispute had carried over into the coming Presidential election, it might have crippled the Authority's future operations. It seemed wiser to confront whatever Administration might hold power in 1941 with a *fait accompli* in the Tennessee Valley—a going concern with established title, services, contracts, program and goodwill. Moreover, it would have been an economic crime to proceed with the only alternative program—the duplication of existing facilities for the distribution of electricity in the area. The extra cost of $10,000,000 could be regarded as an offset to the possible social loss to the community of an investment valued at five times that amount. A further consideration of prudence—the subsequent outbreak of a major war in Europe—reinforced Lilienthal's decision, which left T.V.A. unhampered in the face of a growing national emergency.

Willkie accepted and then, for the first time since his long duel with Lilienthal began, he outsmarted himself. He chortled, gloated and boasted of his success—which was only human—and Wall Street pathologically boomed him for the Presidency, as the only man who could outfox Dave Lilienthal in a business

deal! The celebration boomeranged. T.V.A. went prudently to Congress for its authority to complete the deal. The Senate promptly granted the request. In the House, however, the Military Affairs Committee was under the Chairmanship of Representative May of Kentucky—a violent partisan of the coal interests and an avowed foe of the T.V.A. May made use of the heat which Willkie had generated against the Authority to delay action and to draft an impossible bill designed to hamstring the T.V.A. Among other things, it forbade the Authority to pay sums in lieu of taxes to local governmental units. The result was that the Willkie-Lilienthal deal fell through and there was a period when it seemed as though the T.V.A. would be compelled to complete a duplicate system of distribution for its power in Tennessee. This brought Mr. Willkie to terms. The original authorization was pushed through Congress and the deal was re-negotiated. This time there was no gloating at the pay-off. It had been too narrow a squeak all round.

So, as the great issues of the 1940 election and the foreign war crisis began to take toll of public attention and governmental energies, the Tennessee Valley Authority was at last in the clear. It had successfully withstood a determined, astute and ruthless counter-attack—including an attempt to block its operations by refusing to appropriate funds for the completion of dams under construction—and had come through uninjured and with few scars. It was free at last to do its stuff and to show the nation what intelligent political economy could accomplish for the social and economic betterment of the people in the Great Valley of America.

★

YARDSTICK TACTICS

If you listen to Wendell L. Willkie and the utilities, you will get the impression that the only "yardstick" involved in the T.V.A. is the rate charged for Government power, and that the electric "yardstick" established by David Lilienthal's rate structure is elastic and unfair. This is a queer perversion of the measure which the Authority has really established—the comparative ability of a Government corporation and of a private profiteering corporation to work for the social and economic betterment of the people of the Tennessee region.

This means that the Federal investment of social capital in the Valley represents a major experiment in social planning. The whole enterprise is based on the assumption that, when the heavy construction is completed, the T.V.A. will be self-financing on an economic basis and will be in a position to contribute to the Federal Treasury. If this calculation is sound, it means that we shall have discovered the right way in which to approach the far larger problems of the Mississippi Valley itself.

For some reason, the very idea of social planning is repugnant to the Tories. Corporate managers who owe their position to their foresight and skill in co-ordinating far-flung economic

enterprise become indignant when the Government undertakes to do the same thing for the general good instead of for private enrichment. Mr. Hoover in the 1932 campaign—an engineer!—spoke of planning as a "sort of infection" which had assailed us, presumably from Soviet Russia. The loyal friends of the Almighty Dollar have never stopped to consider how much social planning lies behind the very cash in which they put their trust. Money—whether expressed in dollar bills, bank checks or engraved stocks and bonds—had ceased to depend on gold and silver specie long before the Hoover Panic. All the bullion in America would not suffice to do a month of American business. The dollar which the Tories adore is a mere legal device. The Constitution said that it is good for the payment of public and private debts. The Courts exist largely to enforce the payment of dollar claims between individuals. Prisons await those who forge currency or issue bad checks or sell fraudulent stocks. By slow growth and planning, American money had become something more than colored pieces of paper and was a vital mechanism in our economic life before 1929. Mr. Hoover tried to tie the dollar to gold and nearly ruined a nation which lived by paper money, and when Mr. Roosevelt ended the gold standard he merely ratified a condition which had long existed.

Social planning in the T.V.A. represents precisely this slow, flexible, tentative process. The dollar has come a long way from Biddle's Bank of the United States—through the "wildcat banks," the State banks, the National Banking Act, the Crime of '73, Greenbackism, Free Silver, the Federal Reserve

Act, and Roosevelt's devaluation. So the concept of what will promote the social betterment of the Tennessee Valley is bound to change through the generations. Today it may be cheap power, tomorrow it may be something entirely different.

The fact that the Authority is established in one of the so-called "backward" regions indicates clearly some of the lines which must be followed. As elsewhere in the South, social development has lagged in Tennessee since the Civil War. Institutions which we take for granted in Connecticut, Wisconsin or Idaho simply do not exist at all or are present only in rudimentary form in the Tennessee Valley. This, too, is the result of "planning" in the North. America lives by the dollar and dollar incomes are low in the South and dollar resources are drained away by such bits of "social" planning as the protective tariff, the National Banking Act, the railway rates, and the Delaware corporations which have sprouted like mushrooms in the shade of the Fourteenth Amendment. These Southern States simply did not have the money, even where the need was clear and recognized, to do what ought to be done.

T.V.A.'s social pioneering, therefore, takes the form of creating an advisory mechanism and helping supply the economic income to finance conservation, education and sanitation. Here is an instance of how T.V.A. works in this field. In building Hiwassee Dam a construction camp is set up, as aa matter of necessity. The workers need a supply of pure milk for the camp cafeteria and commissary. T.V.A. sponsors a dairy cooperative, with sanitary standards which will protect its work-

ers from infected milk. After the dam is built and the camp closed down, the dairy technique remains and the local people will have become used to the marketable advantages of pure milk. Again, like the C.C.C. camps, the T.V.A. construction camps offer education facilities to the workers. This is not just a bit of benevolence; it pays dividends by offering the force an alternative to the red-light shacks and the cheap bars which always spring up around such settlements, and it helps keep the force on their toes.

These are two very minor examples of the sort of thing which planning can do for permanent social betterment. And these things pay. The installation of guard rails on dangerous jobs and special precautions against silicosis not only held down death and accident rates on construction but speeded up man-hour output to a degree which more than counterbalanced the extra cost. Even on the humble plane of business practicality, T.V.A. has proved that planning for the welfare of people pays better than planning for the welfare of money alone.

Sane and considerate labor relations and acceptance of collective bargaining, the careful avoidance of paternalism, the development of recreation facilities and recreation industries as a by-product of the lakes created by the big dams—all these are woven into the T.V.A. pattern of local self-respect. Local labor is given preference in all jobs and better diet is made available to the men on the job. Low-cost housing, developed in an endeavor to hold down overhead costs on construction, becomes a permanent contribution to the Valley. The whole experience of T.V.A. has shown that a little intelligent fore-

sight in considering the interests and welfare of people more than pays for itself, even in terms of the sacred dollar. This is also a permanent contribution to the life of the Valley.

II

Without a firm foundation of economic planning, all this would be nice but unsubstantial. It would be social philanthropy—boondoggling, if you like—which would wither away the moment the Federal appropriations ceased to flow southwest from Washington. Louis XV proved that there is no limit to the amount of money which a Government can spend on one person, but the fate of La Pompadour was to bring on a revolution, because her extravagance had helped ruin a great kingdom. So, T.V.A. spending, without economic planning, would mean nothing of itself.

Economic planning is the basis of the T.V.A. program. Without it, it would have been much simpler, and far cheaper, simply to divide four or five hundred million dollars among the inhabitants of the Valley—in return for a little leaf-raking and shovel-leaning—and call it a day. Here again, the T.V.A. has demonstrated the practical nature of economics and the folly of those who confuse realistic economy with monetary stinginess. The proper role of money in an economic program is to be spent so prudently that it creates real and enduring values far greater than those involved in the short period of investment.

T.V.A. decided that the basis of our wealth in the Valley is the farm land and the running water it contains. Not only

must the water be kept running, in order to generate power and aid transportation, but the land must be anchored to prevent erosion and the waste of fertility. There has been much talk about the ten big dams of the T.V.A. and some stuff about the work of the C.C.C. boys in putting check-dams in gullies and terracing the fields. But to the T.V.A., every tree, bush and blade of grass is a dam and the Authority has established billions of such dams to check the flow of water and to hold down the soil. Land-use programs—zoning of plow-land, pasture and forest—have been established on an informal basis in co-operation with the people of the Valley. This means not only a more prosperous and enduring agriculture in the Valley; it also means protection of T.V.A.'s concrete dams and navigation channels from silting and it means protection of T.V.A.'s installation for power generation. Norris Dam and Norris Lake are built to last for at least two thousand years. This investment would be folly if the Lake for example were to become choked with silt in less than fifty years.

It goes without saying that cheap and abundant electric power is an economic resource of the greatest importance. Without this power, much of the rest of the program would be worthless. With it, Tennessee can become a second Switzerland or Bohemia, one of the workshops of the world. From power it is possible to fix atmospheric nitrogen and to develop the phosphate resources of Middle Tennessee, with which to enrich and restore the soil. With power it is possible to develop the kaolin deposits of North Carolina into a fine porcelain industry. Tourist and recreation facilities can not only develop into another

source of economic income but can be used to support cottage industries and local specialties. The dams can be used to raise and lower the water level during the mosquito-breeding season to combat malaria, and thus help release the economic energies of the people of the Valley.

All of these things are interrelated and interact upon each other in a way which multiplies the economic effectiveness of the T.V.A. program. This is what is meant by economic planning. It is the combination and integration of many different factors of production and service with which W.P.A. has fought malaria in other States. New industries have been brought into the Southern Piedmont by power development. Vast soil erosion projects have been started in the Dust Bowl and the Forest Service has been struggling to plant a shelterbelt of trees along the eastern edge of the Great Plains. Recreation and tourists industries exist throughout the nation. Federal-power is being lavishly generated at Bonneville and Boulder Dam.

By wise planning, the T.V.A. has found it possible to promote all of these economic enterprises simultaneously. This is a tremendous saving in overhead, management and direct investment. Not only are the T.V.A. dams multi-purpose dams—for power, flood control and navigation—but the T.V.A. dollar is a multi-purpose dollar. Every cent of public money invested in the Valley creates between three and five cents of social and economic values.

This is the economic yardstick which the T.V.A. has established. No private corporation whose managers were in their

right minds would dream of doing such things with their stockholders' money. In the Silicosis Scandal in West Virginia it was found cheaper for the company to doom its employees to certain death and then fight the claims for compensation than to take the simple precautions which would have saved life. You need only see the man-made desert around the old copper-smelters near Ducktown, Tennessee, and the half-silted river below this little Sahara to realize that private industry does not originally concern itself with the future of anything except its next financial statement. I have seen the Ford Plant at River Rouge, the Anaconda mines at Butte, the iron and steel towns of Pennsylvania and the stranded coal towns of the East, and I can truthfully report that only a few of the biggest American businesses concern themselves with the social or economic welfare of their own communities, let alone of the nation as a whole.

III

Even in terms of their own business operations, the T.V.A. has shown itself superior to the private power companies through its power yardstick.

The test of this yardstick is not, as the utilities say and the public has been led to believe, whether T.V.A. rates are "subsidized" or private rates "dishonest." The test is what rate will secure maximum use of inexhaustible natural resources on economic, self-financing terms. Here again the object is not the retirement of capital but is, rather, the social and economic betterment of the region. Like the U. S. Post Office, the purpose is to cover operating costs and depreciation and to facilitate

communication and commerce. The object is abundance and prosperity, not scarcity or dividends.

The T.V.A. electric yardstick is based on two factors which have been widely ignored. The first is the establishment of "postage-stamp" power rates throughout the region. This is to prevent needless industrial congestion and to diffuse economic activity—an important consideration in promoting national defense in an age of aerial bombers. There is nothing here which is contrary to current business practice in other lines of economic activity. You can buy a bottle of Coca-Cola in Utah or North Carolina for the same amount of money, and most packaged goods are now sold at uniform prices throughout the country. There are even laws which forbid merchants not to do so! The second part of the T.V.A. electric yardstick—the part that shocks the power companies—is found in the retail charges of the various municipalities and co-operatives that have purchased T.V.A. power and resold it at unusually low (but entirely economic) rates.

T.V.A. will charge an average of from 4.5 to 4.9 mills per k.w.h. for prime power, wholesale, depending on the load factor. In 1938 the price ranged from 4.56 mills in Knoxville to over 6 mills in some of the other cities. Mr. Willkie's Alabama Power Company sells power to the City of Birmingham, Alabama, at an average price of 5.6 mills per k.w.h., so the amount of "underselling" by T.V.A. is slight indeed.

The real difference lies in the bills the consumers pay for T.V.A. power. Domestic bills for 40 k.w.h. from private companies averaged $2.37; T.V.A. price for 40 k.w.h. was $1.20.

The private utilities charged commercial consumers $37.97 for 750 k.w.h.; T.V.A. charge for the same amount was $14.00. The fact is that the real rake-off in power came on the retail rates and that it was here that Lilienthal struck hardest. Yet it must be remembered that T.V.A. does not sell at retail and that the agencies which buy T.V.A. power must do so at an economic profit. What T.V.A. has done, therefore, is to write power-contracts with retail distributors, stipulating low rates to consumers. This may be annoying to private utilities but it is not the fault of the T.V.A. if municipalities decide to do business on this basis, and any possible loss will not fall upon the Government.

In addition to this method of power planning, T.V.A. early helped develop its market through the Electric Home and Farm Authority. This Government corporation, financed consumer purchase of low-cost electrical equipment, and now, in co-operation with local agencies, has developed refrigeration and quick-freezing devices for the benefit of farmers, as well as for industry. Much of the criticism of the Authority at the Congressional investigation centered around power rates and charges of "concealed subsidy," including the promotional work of the Electric Home and Farm Authority. Dr. Arthur Morgan made this charge the basis of one of his attacks on Lilienthal, but the true fact was that no private utility had ever had to face problems of distributions such as those which the T.V.A. had to handle. The Authority was under mandate to complete certain dams. These dams would develop power.

This power must be disposed of immediately, as generated, or go to complete waste.

The effective, practical and businesslike way to dispose of this valuable energy was to take a lesson from private business. When Henry Ford broke the Selden Patent and began mass-production of his Model-T, he did not go to his competitors for permission to manufacture low-priced automobiles. That was his opportunity and he proceeded to exploit it until others were driven to imitate him. When radio was developed, radio programs were started as an inducement to buy radio sets. Nothing is sold in America without an effort to organize the market for it, to acquire outlets, and the great fortunes have been made by shading the price to a point which would get the business. Often this price is below the cost of production, except when produced on a large scale. As production increases, unit costs drop until the line between profit and loss is crossed.

That is what T.V.A. has tried to do with its power planning. On July 1, 1939, the Authority was wholesaling power to 63 municipalities and rural power co-operatives which retailed it to 180,000 residential and commercial customers. The purchase of the Commonwealth & Southern properties brought T.V.A. power to 34 more communities and co-operatives, adding 145,000 additional retail customers.

The average retail rates charged are less than half of the national average, but the average residential use per consumer has been 58% above the national average. Revenues from the sale of T.V.A. power ran about $2,500,000 a year in fiscal 1938, which figure was exceeded in the first six months of the 1939

fiscal year. When the entire program is in operation, T.V.A. will get a power income of over $23,000,000 a year from which to pay all the operating costs of the program and return a profit to the Treasury at Washington.

Pleasant though it is to consider the use of cheap electricity in homes and on the farms, the real impact in power planning comes through industry. In this connection, it is amusing to note that while one wing of Big Business was vainly trying to get the Supreme Court to say that a dynamo is unconstitutional if the Government owns it, another group of Big Business concerns was eagerly buying T.V.A. power. These latter included Monsanto Chemical, Victor Chemical, Electro-Metallurgical, the Aluminum Company, as well as the heretical Arkansas Power & Light. So much of the battle was really a battle to decide whether industry should get power at a high or at a low cost. The issue thus becomes one of whether we shall take economic advantage of the power of the Tennessee River or whether we shall allow its industrial use to be controlled and the rates for its power set by corporations directed and controlled by the same financial interests which control competing industrial areas.

That is what it boils down to. These T.V.A. power rates are the first breach in the Chinese Wall which Northern bankers have built around Northern industries. It is not so much Commonwealth & Southern against T.V.A. as it is Niagara-Hudson, New England and the Mohawk Valley against the industrial development of the Southeast. This is the political issue of the

New Deal: Wall Street's financial sovereignty as opposed to the economic development of the rest of the nation.

IV

The mere fact of political or economic domination by a Northern financial dynasty would not necessarily be hostile to the long-range development of the region. Egypt under the autocratic Pharaohs prospered marvelously for thousands of years, and it is an old law of political society—as well as of Christian morality—that the poor and oppressed actually do inherit the earth.

The trouble is that Northern domination of Southern destinies ran counter to sound economics. The terrible and endless demand for dollars—dollars to pay freight rates on Northern controlled railroads, dollars to buy manufactured goods from tariff-protected Northern industries, dollars to pay premiums to Northern insurance companies and dividends to Northern investors—forced the South to abandon prudent farming and to mine the land for cotton. Depleted fertility led to a demand for fertilizer for Southern cotton fields, sent more dollars North and made the South the greatest consumer of commercial fertilizer in the nation. As early as 1916—as the history of Muscle Shoals recounts—the demand for cheap fertilizer was one of the major factors in bringing about the development of the Tennessee River.

This demand has persisted and has become acute. For many decades, nitrates have supplied the basis for commercial fertilizer. Only recently has the emphasis been shifted to legumi-

nous cover-crops which fix the nitrogen in the soil and to phosphates which promote organic life and conserve nitrogen. In fact, the soil scientists have demonstrated that ordinary nitrate fertilizer exhausts the phosphorus in the soil to a greater value than the cost of the nitrate.

The Authority's yardstick for agricultural renascence depends not on nitrates but on phosphates. The Middle Tennessee basin contains a wealth of limestone and phosphate ore with which to replenish the fertility of the region. It is here that Harcourt Morgan achieved his great victory. Phosphorus is indispensable to life. It is, moreover, a mineral which does not automatically renew itself, save at the bottom of the sea, and a civilized nation cannot wait for the passing of a geological epoch to renew its vital resources.

From the viewpoint of fundamental economics, the American phosphorus situation is very serious. At the present rate of soil depletion, we shall have absolutely exhausted the 650,000,000 tons of phosphorus in our topsoil and become a biological desert within 240 years. Long before this, of course, we shall have experienced a complete economic collapse unless steps are taken to redress the phosphate balance. The nation contains great reserves of phosphate ore, mainly in the Northwest, with the richest deposits in Florida (546,000,000 tons) and Tennessee (103,000,000 tons). These eastern deposits will last—at the present rate of consumption—for about 200 years, and the western deposits (nearly six billion tons of low-grade phosphatic ore) are 90% owned by the Government. There is a fertilizer trust, cartel or combine—chiefly of British capital—

which dominates the world fertilizer market and which is too powerful to be challenged even by the American Government. Wait and see what happens should T.V.A. decide to *sell* fertilizer to farmers! Despite our loss of nearly 3,000,000 tons of irreplaceable phosphorus a year, we export a million tons of phosphate fertilizer to foreign countries and have, hitherto, adopted no national policy towards a mineral which is vastly more important than gold.

In 1936, prompted by Harcourt Morgan, the T.V.A. bought 3,000 acres of phosphate land, with over 15,000,000 tons of ore, for about $678,000. This purchase led to charges of graft, since the owners of the land had realized a profit of over half a million dollars, but the Authority did not care about the profit so long as it got fair value for its money in the form of phosphates.

Pertinent to this deal, T.V.A. developed and patented the formula and process for developing metaphosphate of high concentration. It was found that one of the keys in the chain of patents was owned by an inventor in Czechoslovakia. After patient negotiations, T.V.A. bought out his rights, a few weeks before Hitler took over the country. Without this, the Government's title to develop phosphate fertilizer by the Morgan process would be imperfect and there would be no immediate chance of developing our western phosphates.

It was here that Senator Pope of Idaho and the Joint Committee on Phosphates linked up with the T.V.A. The Morgan process is economical on low-grade ores, if cheap electric power is available. It could be used in Idaho or in Spokane with

power from Bonneville and Grand Coulee and would thus make possible a fertilizer yardstick. Theodore Roosevelt withdrew the Government's phosphate lands from public entry, so there is no legal doubt of the Government's right to manufacture and sell phosphates in the public interest. Yet Pope's part in the program exposed him to defeat by the Tories in the Northwest. Just see what happens when and if the Government starts to sell phosphate fertilizer.

Harcourt Morgan has been too cautious to challenge this powerful commercial interest. T.V.A. has been producing about 6,000 tons a month of its cheap triple superphosphates—over 100,000 tons in all—and a much smaller amount of its sensational calcium metaphosphate. These products are not sold but are distributed for "demonstration" purposes through land-grant colleges in forty-three states, as well as in Puerto Rico, for experimental use in nearly six hundred agricultural counties. By testing at agricultural experiment stations and on 4,200,000 acres of farm land, half a million American farmers are learning to use and demand high-grade T.V.A. phosphates. Thus, when the groundwork has been fully prepared, T.V.A. can join technical resources with Grand Coulee and Bonneville to meet the demand. This program is bed-rock economics. It depends on simple arithmetic and contains the key to the future of the United States. It has been begun without fanfare or headlines but it means more to the safety of the American Commonwealth than a fleet of battleships and all of the gold buried in Kentucky.

V

The "side-shows" of the T.V.A. are as significant as the main lines of effort, in that they have additional bearing on the vitality and morale of the experiment.

At a laboratory in Norris, the Government engineers are getting higher temperatures than have ever before been achieved in electric furnaces and have invented a technique of controlling both the temperature and the chemical environment in the manufacture of porcelain. They are now working on the problem of achieving uniformity in the mass-production of fine chinaware. This experiment alone promises to create a real porcelain industry in the United States for the first time in the history of the New World. This industry will use the kaolin, flint and feldspar of North Carolina and will compete with the English Midlands and with the Far East, thus helping to supplant some of the four million dollars' worth of fine porcelains and china we import each year.

The Hydraulic Laboratory has devised new techniques for testing the flow of our rivers and has succeeded in saving time and expense in dam building and in control of navigation. This system makes it possible to foresee and anticipate the location of eddies and back currents which will affect the construction and the use of the downstream side of the dams. It is simple—just applied common sense—but until T.V.A. began it there was nothing like it in America.

The Authority has taken over and intensified the program of reforestation in the Valley. It operates its own nurseries near

Norris Dam and at Muscle Shoals and has planted nearly 100,000,000 trees on public and private lands in the Valley. At the same time, it is fostering the wild life of the region. It operates its own fish hatcheries and is replenishing the stock of small game which was once one of the great natural resources of the region. Working in co-operation with the U.S. Biological Survey and similar state agencies, the Authority is creating the basis for a permanent recreation area in the region.

Public health work has extended into the national campaign to combat malaria, pellagra, hookworm, typhoid, tuberculosis, syphilis, and infant and child-birth mortality. In malaria control, the Authority has pioneered. In acquiring a narrow strip of land along the reservoir margins, to protect against silting, it also guards against the formation of small isolated water-pockets caused by the tramping of cattle along the shores, by fluctuating the lake-level. Debris and brush have also been cleared from the shores and airplane dusting of these reservoir margins with poison to kill mosquito larvae has been developed. T.V.A. has found that the most effective method of mosquito control is to raise and lower the reservoir level. A one-foot rise and fall is effective. When the water rises, the small fish reach the isolated breeding-pockets and eat the wrigglers. When the water is lowered, the water-pockets at the higher level dry out and the wrigglers perish.

At Norris Lake and elsewhere in the Valley, special and attractive recreation facilities have been developed. Pleasant cottages, built by C.C.C. labor, are available for camping parties at a low rental, and there is boating, swimming, fishing, hiking

and horseback riding. With the spectacular beauty of the Great Smokies as a setting, with a healthful climate and an environment from which endemic diseases of malnutrition and poverty are being eliminated, and with the five million tourists who have been attracted to the region by the nation-wide controversy over the dams and the power, the T.V.A. has an eye to the future popularity of this area as a tourist and recreation resort.

What is important about all these things is that they are things which no private utility would bother to consider. The Wendell Willkies of this weary world want kilowatts and dividends and cannot be bothered to consider tuberculosis (Tennessee has the highest tuberculosis death rate in the country) or malaria as factors which affect efficiency and profits. To spend thousands of dollars on experimental ovens for porcelain, on experiments with aluminum and manganese ore, on the electric carbonization of coal, on developing elemental phosphorus, halogen and nitrates for national defense, would not look well in a stockholders' report. To fuss with tourist cabins, boats, game, trees and education is beyond the scope of the Delaware corporations' ambitions. Yet all of these things come closer to expressing the real purpose of the T.V.A. than even the phosphate program and the fight over cheap power.

For this is a program designed to create a better life for people. So long as the operations continue on the sunny side of solvency, the Authority's duty is to plow under its revenue in order to promote the welfare of the people in the Valley and of the American people as a whole. Measured by this yardstick,

there is no private corporation in America outside of the philanthropic foundations which could do as much for the region.

VI

This aspect of social betterment is a necessary result of regional planning. It is, in fact, impossible to plan for a region without planning for the people who live in that region. The profits of private industry are derived from singleness of purpose. Steel corporations use up the ore of the Iron Range as swiftly as possible, oil companies dry up the underground lakes of petroleum, the Aluminum Company turns bauxite into pots and pans, and the utilities generate and sell kilowatts.

Regional planning involves asking and answering questions beyond the immediate balance sheet. First of all, and all the time, it involves an exhaustive survey and a thorough understanding of the whole region. It involves the creation of a responsible social nerve center to direct all physical programs. It involves mapping, zoning, classifying the soils, assigning relative values, analyzing the people, measuring the whole problem.

For example, in the Valley the Authority made the first thorough survey of the erosion problem, since correction of that problem not only was included in its economic mandate but would, if neglected, complicate the physical operations. It was found that 1,000,000 acres of Tennessee have been made totally unfit for agriculture, 2,000,000 acres have lost one-half of their topsoil and 4,000,000 acres are suffering to some extent from

erosion. They found counties with less than one-fifth their farm land capable of growing crops.

T.V.A. studied the depletion of other resources, such as lumber, with production one-third of what it was thirty years ago, and coal, whose production has been halved in the same period. Such studies, in addition to their melancholy interest to the prophets of social doom, are helpful in locating sections where people are endeavoring to support themselves on a dwindling economic basis and need resettlement rather than relief. Thus the Authority can plan for people with a knowledge of their needs and their resources.

T.V.A. has been spending about a million and a half dollars a year on regional planning of this sort, including mapping, reforestation, erosion control, development of mineral resources and similar activities. What private power company could do one-tenth as much and still keep financial faith with its stockholders?

In this process of planning, the essence is the avoidance of paternalism and the cultivation of free co-operation. T.V.A. takes the greatest pride in this aspect of what might be termed social engineering. There is no compulsion on people to do as the Authority recommends. T.V.A. does not lay down the law on a "Mother-knows-best" basis but serves, instead, as a focus, a forum, a switchboard for linking up a wide variety of groups —Federal, state, municipal, country and town groups, and co-operative associations.

Anyone who has worked for even a short time in the Federal Government is made painfully aware of the bitter bureau-

cratic feuds and jealousies which impede orderly public administration: the Forest Service fighting the Department of the Interior, the Army Engineers fighting the T.V.A. and the Reclamation Service, the State Department at odds with Commerce, Agriculture and Treasury, and so on down the line. To my mind, T.V.A.'s greatest single psychological achievement is its success in eliminating these minor rivalries from the regional picture and its triumph in enlisting the voluntary help of State and local agencies which are traditionally suspicious of the Federal Government, even when it is spending money.

This means that we have succeeded in using the normal methods of a democratic society to achieve technical results for which the Fascist nations appoint commissars with plenary power over conservancies of economic activity. Where private business corporations, in their contacts with Government, tend to corrupt, debase and destroy public authority, the T.V.A. has shown that it is possible to promote the legitimate economic interests of a region and at the same time to strengthen, invigorate and improve local government in the process.

Here, too, is another "yardstick" to measure the success of the Tennessee Valley Authority. Contrast this co-operative program with the picture of Commonwealth & Southern's nonpareil battery of high-priced attorneys ordering the courts to forbid the Government to produce low-priced electricity—with Wendell Willkie shrewdly fostering political dissension between Berry and the T.V.A., between the former Chairman and his fellow Directors, between the White House and Con-

gress, between the two Parties and factions of both Parties. Compare the utilities' triumph—the acquisition of $10,000,000 of excess value from the taxpayers—with T.V.A.'s steady productive expenditures on public health and agricultural improvement, and you need no other yardstick.

For Commonwealth & Southern, Electric Bond & Share, and all the other financial interests which have fought the Valley program are of the past. They belong to the 1920's—that fabulous era of sure-thing profits and the dollar sign over all. Dollars are useful. We use money to live by, but that is not the same thing as living for money. T.V.A. has relegated the dollar to the position of a tool which can be used like other tools, wisely or foolishly. For the Valley Authority is more than a corporation with some of the attributes of Government. It is giving us a preview of the Government of the future.

★

PREVIEW OF GOVERNMENT

If you want a preview of the future Government of the United States, go to Knoxville and see the Tennessee Valley Authority at work.

This is a broad statement—so broad that it can be justified only by reference to the historical process as it has worked in the evolution of human society. Today we are living amid the decayed remnants of the Caesarian form of government. For nearly five hundred years the political system of the Caesars was a living force which gave the civilized world one of the happiest periods that it has ever known. When Rome fell, a host of petty would-be Caesars—kings and barons—arose and ruled for over a thousand years. The great democratic revolution which overtook Europe with the discovery of the three explosives—gunpowder, printing and America—carried the process one step further and took expression, as previously noted, in the foolish dream that every man should be a little Caesar, the absolute and untrammeled owner of a tract of land. Our attempt to adopt this dream as our national policy has brought us to a stage in the ruin of the natural resources of

our Great Valley when we must go back to the first principles of the political process which set us in motion.

What are these principles? Here is what happened to Rome when the Caesars took over. Every growing community must, in time, find for itself a new focus for political action, a "creative office" which stands above and apart from the older Constitution and gives it fresh power and direction. Thus Hannibal had secreted in Spain an agency of government which was superior to the commercial republic at Carthage and which gave the world a new pattern. When Rome beat Carthage, it inherited the problems of imperial administration which had created the Hannibalic remedies. So, when the political empire of the ancient world fell into Roman hands, the Caesars appeared as the agent of the new forces in social organization which Hannibal devised.

Caesarism in practice rested on three things. The Caesars owned Egypt as their personal private estate. This made them as rich as Rockefeller, as magnificent as Morgan, in terms of Roman society. Egypt gave to Caesarism the financial revenues which supported their extra-constitutional government and enabled them to act as a balance-wheel for Roman economics. The Caesars controlled the army—that is to say, the organized power on which the Romans relied for defense against disaster. And the Caesars controlled the dole—the food-supply of Rome —and saw to it that the Romans ate regularly, had plenty of good circuses and were not exposed to the mercy of the speculators. For the rest, the Caesars were well content to let the political government of Rome continue under the old system

and they even endeavored to restore it to its old authority.

This system of informal, extra-constitutional government was forced upon the Roman world, against the will of all concerned, by the inadequacy of the old methods for maintaining continuity of economic life and the social security of the people of the Roman Empire.

The American democracy is reaching a stage in its development when the old methods of political government, as laid down by the Constitution, are insufficient to maintain the economic continuity of American life or to promote the social security of the American people. A Congress which can cripple relief in the midst of an unemployment crisis and can stop economic recovery in order to influence an election is an agency which needs to be supplemented—rather than displaced—by political institutions which possess greater stability and responsiveness to the public welfare. The T.V.A. is the beginning of such an agency.

Its first and most important characteristic is to preserve and increase the democratic content of its economic operations. The co-operative method by which it seeks to expand and promote its activities is the essence of the "creative office" which the American people are building out of their hopes and their necessities.

The American form of "Caesarism" is anything but totalitarian, far from authoritarian. Any man with a machine-gun, any tough guy with a gallows, can enforce absolute physical obedience to his decrees, as the world's unhappy history all too plainly shows. When Caesar is a man, he is subject to all the

frailties, cruelties and vices which beset the monarch. When Caesar is a corporation with a mission—as the history of the Vatican reveals—there is a power of quiet persistence and growth which carries it across the centuries.

Thus the only people who are required to obey the orders of the T.V.A. are the handful of T.V.A. officials themselves, and they can always resign. No municipality has to take T.V.A. power against its will. No farmer is compelled to terrace his fields or use T.V.A. phosphates. No right of eminent domain is invoked against the rival power properties in the T.V.A. sphere of influence. No shipper is compelled to use the waterways which the Authority is improving. There is nothing absolute or dictatorial about the process of persuasion to free co-operation which the Authority has initiated.

Moreover, the Authority is unlike Caesar in that it is really subject to the higher will of the American people. The President can appoint and remove its Directors, but such action must be confirmed by the Senate. The Authority is dependent on Congress for the funds to complete its program of construction and to finance the purchase of competing utilities. Its accounts are subject to the audit of the General Accounting Office and its jurisdiction is limited to one particular watershed and to the performance of certain specified functions in that area. Its continued operation depends in large part on the political decisions of the American people and on the attitude of their representatives in Congress. The democratic safeguards against the arbitrary and irresponsible vagaries of a single man are, if anything, too great, but the Authority's power to resist the

equally arbitrary and irresponsible whims of political partisanship is also great. It is protected from the crippling curse of bipartisan administration and from the claims of the seekers after political patronage. T.V.A. is essentially a "creative office" of the American democracy and codifies three generations of political experience with the advantages and defects of representative government.

II

Next to the Authority's emphasis on democratic co-operation, it possesses the virtue of unaffected pragmatism. It works by the trial-and-error method which is the chief virtue of Anglo-Saxon political institutions. It is not interested in anything but the final object, and if it cannot achieve this in one way it will adopt another.

In short, the Authority maintains a highly flexible approach to the problems which it has been ordered to solve. Compared to the T.V.A., the Army is dogmatic and private business is run by doctrinaires. The Army Engineers are still enamored of levees and complete authority over the River as the means to achieve their hydraulic duties. As was shown during the great flood of 1937, the Army can work most efficiently on the basis of absolute authority and has little sympathy with the political and social factors involved in flood control. Equally unsympathetic are the Forest Service officials, whose professional ideals would be served by intensive water-shed protection and reforestation on a continental scale. T.V.A. uses all available methods, from planting trees and terracing fields to building dams and locks.

Take the fertilizer assignment. When the Authority took over at Muscle Shoals, the only talk had been of developing cheap nitrates for fertilizer. The Authority decided that nitrates were inadvisable, in that they wasted the still more vital phosphoric content of the soil; so the T.V.A. has concentrated on the production of phosphate fertilizer, keeping Nitrate Plant No. 2 for military purposes.

Flexibility is the great point of T.V.A.'s superiority to the private corporation. The latter is tethered to the making of monetary profits. To do so efficiently, it is condemned to resist every form of competition, no matter how beneficial to the community, and to evolve a legal morality which holds that a corporation is immune from the political decisions of the American people and superior to the powers of their Government. A corporation is thus required to dissipate its energies and curtail its services in order to prevent competition and in order to influence legislators, judges and the voters—functions which have nothing whatever to do with its economic utility. Above all, a private corporation cannot afford to do as the Government does—to wait decades for a return on its investment and to prefer the creation of social values to the acquisition of negotiable assets.

The flexibility of the T.V.A., responding to the slow but sure lessons of the trial-and-error method of its operations, is a form of planning in itself. A lumber company can drive across an entire watershed, like a forest fire, and leave not a stick standing, and then move on to greener forests without much thought of the floods, erosion and unemployment which it has

caused. The Authority must weigh not only the immediate but the remote results of its operations. It cannot afford to be indifferent to the interest of the people of the region, as can a railroad or a mining corporation. It must balance its economic decisions against their social and economic consequences.

This means that such a decision as the one to purchase the Commonwealth & Southern properties instead of ruining Willkie was automatic. A private corporation in the same position would not have hesitated. Another company's assets and solvency would be of no great concern to a successful corporate competitor. But the Authority had to consider the total investment involved in the Valley and had to consider the social folly of wasting the values of Commonwealth & Southern's properties by building a duplicate system of distribution.

Similarly, in the same transaction, T.V.A. showed its superiority to decisions based on political partisanship. Senator Taft of Ohio, assailing New Deal "socialism" and spending, proposed to stop construction on all the T.V.A. dams, thus wasting the public investment in those dams and reducing the value of the funds invested in the dams which had been completed. This course—which Congress wisely resisted—would have amounted to another economic crime: the deliberate waste of millions of dollars of public money in order to serve the interests of the privately-owned power companies.

Since it is to avoid just such uneconomic waste and such emotional doctrinaire decisions that we have created the Authority, this incident is highly instructive. Under the old political formula, as was proven by the actual stoppage of work

on Wilson Dam in 1921, the public investment would have been jeopardized to protect private corporations from economic competition, while if two private corporations had been involved, the private investments would have been jeopardized. The Authority follows the sane middle course and works for the social and economic betterment of the entire region and of all the people—including those who were so optimistic as to entrust their savings to the watered stocks of Wall Street utility holding companies in a region long since marked out by nature and designated by Congress as the site for large-scale Federal power developments.

III

The Caesars had their legions. What has the T.V.A. which corresponds to this formidable power over human society?

The enemies of the Romans were barbarians, tribes which knew not civilization, which worshiped other gods and which longed to break through the frontier and pillage the rich Roman provinces.

Our "barbarians" are within our borders. They are hunger, disease, waste and demoralization. The legions with which we combat these deadly enemies of our society are, of necessity, the scientists and public officials whose careers are dedicated to a purpose other than the amassing of pecuniary profits: the Forest Service men, the Soil Erosion officials, the C.C.C., the agronomists, the Army Engineers, the Public Health Service, the vast army of useful, hard-working, unassuming, underpaid scientists, engineers, administrators and technicians on the Fed-

eral payroll. These are the legions of the American corporate Caesar; the T.V.A. idea.

Politicians curse them as a "bureaucracy" and reduce them to the status of civic eunuchs by coercive measures. Their pitiful travel vouchers and expense accounts are held up by the General Accounting Office. Their annual appropriations are greeted with Congressional groans and editorial hisses. But they are the people whose job it is to maintain the social and economic security of the American people. Today these officials are the indispensable element in our public life. Ridden by patronage, levied on by politicians, they are the one group of American citizens who stand between the country and chaos. They are the people who really draft the laws and then administer them. They are the group which senses national needs and determines national policies. They have been growing in power and importance for forty years. It is impossible to imagine national progress without them.

Suppose that the Forest Service was demobilized and Soil Conservation was abandoned. How long would our remaining lands and forests survive the gentle attention of the individualists? Suppose that the Public Health Service stepped aside and tolerated water pollution and epidemics. Suppose that the Army Engineers were assigned to building fortresses instead of levees and let the dams and rivers take care of themselves. How long would it be before floods and pestilence swept across the land? Suppose the relief officials and the social service workers were called off. How long would it be before we again developed the sullen revolutionary mood of 1932, the wandering children

from the broken homes, the mobs muttering in the streets, the whoo of police sirens and the jingle of breaking windows?

These Federal officials are the legions on which our "creative office" must depend for its authority. They are the Government in action, they are the defenders of our civilization. A generation ago it was said that President, Cabinet and Congress could leave Washington and that the Government would continue to run smoothly through the Government clerks. Today it can be said that if you take the Government officials off the job, our civilization will face a threat compared to which a foreign invasion is mild.

For modern society is not a simple matter. It has become increasingly complicated, integrated, total and interdependent. It is not a chain any longer, it is a watch. To preserve continuity—to see that people eat regularly and that wealth is not wasted or abused—consumes more and more time, brains and energy. The Federal bureaucracy has been created to meet these needs, not just to give jobs to the incompetent relatives of successful politicians. Within less than a generation there has been an almost complete revolution in our institutions, and the men who twenty years ago automatically drifted into business or private professional pursuits now find scope for their administrative and technical talents through the Government.

Private business can no longer attract them, since the area within which private profits are safe is ever narrowing. Mass markets are drying up and foreign trade and finance are dwindling. The employees of an oil company or a big industrial plant are not indispensable to society. Industry itself shifts its

locale and skilled labor is increasingly being supplanted by automatic machinery. The whole industrial controversy arises from the declining importance of human energy in economic production.

That leaves the Government services as the only agency whose mission it is to keep America going and Americans alive. Factories can close down for weeks and months, in order to wait for a better market, to replace equipment or to coerce labor. Even on the farms the scientific revolution is spreading and the old dream of individual family ownership of the land is yielding to mechanized, large-scale cultivation. Yet the people must continue to live, marry, beget children and raise families or the American nation will perish—magnificently solvent on the ledgers, absolutely bankrupt socially. All the gold buried at Fort Knox cannot bring back one child which has starved to death, cannot restore one man who has died of preventable disease.

Here then are the legions of our future Government. They are being drilled and organized in the Tennessee Valley, where, for the first time in our history, our people have found a new focus for political action and the Government has moved to meet the need.

IV

The Government services on which the economic continuity and the social security of the American people depend can no longer operate against the old Congressional backdrop. Congressional action is becoming too episodic, emotional and predatory to supply a firm foundation for sustained political action.

The courts are parceled out among a gang of individual judges, some of whom are utterly unreliable. Even a strong President cannot count on more than two, four or six years of political primacy and is at the mercy both of electoral moods and Congressional intrigues.

So the Government at Washington has proliferated into a wide variety of public services, as need arose or special interest demanded. As discussed in a previous section, these services are often discordant, jealous and downright disloyal. Even so reputable and public-spirited an arm of government as the U.S. Forest Service actively lobbied against the first Federal Reorganization Bill in 1938, while the Corps of Army Engineers have become the first line of defense for the power companies in combating the Government's hydroelectric program.

The great need is to combine and co-ordinate these services in the field, both in order to avoid waste effort and expense and to provide them with the soil on which they can develop their creative functions.

The Tennessee Valley Authority has shown that it is possible to provide a focus for political administration—an administrative lens which catches all the political rays emanating from Washington and focuses them on the problems of the people. What this means is that the Government has set up what amounts to a semi-independent command in the field of public operations—an agency which can direct and co-ordinate, without wearisome reference to Washington and without bureaucratic friction, a wide variety of useful public activities.

This is the first time such a thing has been possible without

a war to force co-operation. T.V.A. combines the energies of Federal, state and local governments. It brings the Army Engineers, the Public Works Administration, Forestry and National Park Service, C.C.C. and Soil Conservation, W.P.A. and A.A.A. into a working adjustment. Functions are kept separate but are subordinated to purpose. This issue of authority having been settled, it has been shown that it is possible to reorganize the Federal Administration in the field, without touching the separate identity of the jealous Bureaus at Washington.

In other words, the Government has found unity in action in the Tennessee Valley and has thus shown that it is possible to rise above all the petty, political considerations which hamper public administration in the United States. Provided with a convenient focus for acceptable action in a vitally important and much neglected field, the issue of States Rights and local self-government are of no importance, and the Federal services themselves are subdued to the purposes of the American people —and all this without loss of democratic principles or violation of the morals of representative government.

This is proof that in the T.V.A. we have created something new under the political sun, for the bureaus and agencies at Washington cannot be forced to co-operate, even by Presidential edict. Yet in the Valley they do work together without friction or overlapping. The proof of this assertion is provided by the spectacle of the General Accounting Office, long the traditional bugbear of administrative enterprise, now co-operating on fair and friendly terms with the T.V.A. since it has been put under the charge of a Comptroller-General who is not committed by

his political associations to use his office as an agency of partisan sabotage. Further proof is supplied by the genuine consternation of even the Army Engineers at the suggestion that the T.V.A. be taken apart and its functions partitioned among the bureaus which it now directs and co-ordinates.

At the risk of repetition, it must be emphasized that the Authority anticipates the Government of the future most especially in this particular: that it selects from and draws upon the existing tangle of jangling public services at Washington for the harmonious benefit and development of a particular region. Dams or no dams, there is nothing here which cannot and should not be duplicated in other regions of the United States. There is no reason why Congress should not authorize the creation of a wide variety of similar "Authorities" to direct, co-ordinate and control the output of funds and services from Washington for the benefit of many different regions of the United States. It is nowhere stipulated that democratic government must, of necessity, be expensive, wasteful or inefficient government.

For example, there is no reason why Farm Security, Farm Credit, W.P.A., public works, A.A.A., etc., should not be combined in the Dakotas or in New England, irrespective of whether there is hydroelectric power to be developed, by the creation of a Great Plains Authority or a Connecticut Valley Authority. The institution of such a system elsewhere would supply the best guarantee against misdirected effort and would give the people better value for the money which they spend in taxes.

Such a system, moreover, sets at rest the issue of overcentralization. It reduces the Government Departments at Washington to the status of warehouses—service bureaus—which hold their funds and personnel in a state of readiness to be utilized and localized according to the needs of different regions. There is no one formula which can cover the entire nation. Differences of climate, soil, resources, history and population will always demand a differential treatment. The T.V.A. method makes it possible to localize and individualize basic national policies into enterprises which will take root in every section of the country.

V

This is because in T.V.A. Government has found an objective. The objective can be stated as the broad purpose to save America, physically and literally, for the American people and to save the American people from themselves.

For the first time since we drove out the Indians and gave away the public lands, we have found the outline of a national policy. In the terrible four decades between 1890 and 1930, our national life deteriorated, because we knew no other purpose than what was called Prosperity and defined in purely monetary terms. We had no Indians to fight—even though we looked for them in Cuba, the Philippines and on the battlefields of France. And we had no national domain to give away, though we continued to go through the motives of largesse in the form of tariff privileges, franchises, tax exemptions and Federal subsidies.

Now Government has found its next objective and has begun

its great campaign. T.V.A. is pointing the way to the physical reconquest of the Great Valley and the social regeneration of its people. Waste has ceased to be funny and wealth has ceased to be its own excuse in the revaluation of values which has started.

We now see clearly that as a nation—that is to say, as a group of individuals—we cannot afford to tolerate uneconomic individualism much longer. We are beginning to ask the cost as well as the price of things and are seeking to establish the social welfare of our people as the test of value.

This is something quite different from the old pious concept of "good Government." If you need to give it a name, "prudent Government" will serve. It gives an entirely different meaning to our concept of public economy. In the past, Government economy meant spending no money—which is a miserly concept. In the future, economy will mean spending money prudently. It is no economy to refrain from building a million-dollar levee if floods destroy two million dollars' worth of property. It is no economy to avoid building a forty-million-dollar dam if hundreds of millions of dollars' worth of energy is left running to waste. It is no economy to starve the schools and public health services if the result is a diseased and ignorant community.

In the T.V.A., the Government has set out to put the country together again after three hundred years spent in taking it apart. Science and sociology, economics and engineering are combined to take what we have left and put it to its best use, in order to save its values for ourselves and for our children.

What is perhaps the most important part of this objective is that it knows where to stop, that it confines itself to a rather humble, practical plane. Arthur Morgan began by wanting to select "suitable mates" for the Tennessee mountaineers at Norris and ended by trying to tear down democracy in the United States. His more prosaic fellow Directors succeeded in setting the stage for a continuing economic development which will permit people to plan their own lives in usefulness and security under self-government.

This is the vital distinction between the objective of the T.V.A. and the mystical imperatives of the totalitarian governments. There can be no deification of the Party or the State when the State is obviously and always the servant of the people. There is no need to direct people's lives or to order their thoughts when your avowed and explicit purpose is to plant trees, control floods, improve navigation, generate kilowatts, save the soil, manufacture fertilizer, terrace the fields, control malaria and develop industry and agriculture. Cultural development can be artificially stimulated at any time but it will wither away without a firm social and economic structure to support it. Since Americans propose to do their own thinking, this is perhaps the greatest guarantee of permanence in the Authority —that it is down to earth.

That is not to say that there is not room for the highest type of devotion and self-sacrifice in the work of Government under this new formula of service. It has been found that on big projects it costs one life for every million dollars spent to complete the job. Even aside from physical accident, men work

themselves ill and suffer nervous breakdowns and die of overwork in the course of any great enterprise.

Yet the important fact is that, as in the days when Rome outgrew its Senate, the task before Government is a physical job. It involves hewing wood, drawing water, planting trees, digging ditches, pouring concrete, cutting brush, building roads, reservoirs and sewers, distributing food, stringing wires, installing dynamos, arguing lawsuits, closing deals, doing any one of a thousand immediate, practical things without reference to political theory, partisan convenience or American tradition.

Yet the Tennessee Valley Authority has not put the Government into business so much as it has put the Government into pioneering. To argue against the incidental competition of public power with entrenched private interests is on the same plane as arguing against public schools because there are private schools, or against public bridges because there are private toll bridges. The Government has always pioneered with roads and railroads, with navigation, irrigation and conservation, and now it is still pioneering with power and human welfare. The troops are no longer needed to keep hostile Indians from the wagon trains. Instead, the Government watches the rain gauges and the sluices, the freight rates and farming methods, the utility lawyers and the opposition politicians, to protect the modern wagon trains from the contemporary equivalent of the war whoop and the scalping knife.

Government without an objective is a rudderless ship. Through the T.V.A. we have found a new sense of national

direction, a new channel for the imagination and courage of our people.

VI

All this is very well, but it might not be sufficient to insure the success of our venture in streamlined democracy, were it not for one thing: In the Tennessee Valley, for the first time, the Government is assigning to itself some of the economic assets which it is creating, and enough of them to finance a continuing operation.

This again is something new under our political sun. When we built the Panama Canal we charged tolls for its use but that was not extraordinary, and there was no effort to allocate to the Treasury a revenue which would repay the cost of creating a strategic thoroughfare across the Isthmus. Rates on the Canal were, moreover, kept high by the railways which consistently opposed any lowering of the cost of inter-coastal communications.

Perhaps the most important thing about the Caesars was the fact that they were the richest citizens of Rome. Theirs was the wealth of Egypt, without which they could not guarantee food to the Roman people or pay to the Roman legions. In the power revenues derived from the sale of T.V.A. kilowatts, the Authority has assigned to itself economic assets which will finance its future operations after the dams are built.

This is a tremendous departure from past practice. At Muscle Shoals the Alabama Power Company got power from Wilson Dam at a give-away rate. When the Naval oil reserves became worth looting, the Harding Administration turned them over

to private operators on a royalty basis. The immense public domain in the West was sold or given away on terms which bore no relation to the wealth that thus passed into private ownership. The Forest Service and other Government agencies disposed of public property and grazing rights for nominal fees. It had almost become a fixed principle that the Government should be kept insolvent and such a self-supporting agency as the Post Office was regularly raided for subsidies to newspapers, aviation companies, shipping lines and political franking.

But human nature and common sense alike suggest that any Government enterprise which depends on annual appropriations out of tax receipts is in continual danger of interference or destruction. A recalcitrant or slovenly Congress may refuse or neglect to provide funds. Popular energies may be diverted to other channels, such as relief or a foreign war, and the work may be jettisoned or postponed. Shifts of policy and power may deliberately curtail or destroy the venture.

But T.V.A.—like its sister-project of Bonneville-Skagit-Grand Coulee in the Northwest—is designed to be self-supporting. Once the dams are built, the Authority will dispose of valuable power which had hitherto gone unutilized. This is wealth which the Authority developed and which it has the economic and social duty to sell on advantageous terms. As the phosphate program gets under way, there will be fresh revenues and profits from which to finance continued fertilizer operations.

So Government will not only function through a public corporation, but this corporation will be economically independent of Congressional appropriations and will more than

pay its way. So long as this is the case, not even the politicians dare condemn the Authority to operate at a loss or to divert the financial profits of its activities to the enrichment of private investors in competing corporations.

Such, then, is the preview of our future Government as foreshadowed by the Tennessee Valley Authority. It will be a corporate enterprise under firm democratic control. It will substitute free co-operation and persuasion for authority. It will operate along the traditional channels of trial-and-error and will maintain complete flexibility of approach to the solution of its assigned problems; the discipline of facts will keep it free of dogmatism and innocent of doctrine. It will enlist, train and utilize the vital public services on which the life of our complex society now depends. It will provide these public services with a focus for harmonious action. It will have a definite, practical objective. And it will enjoy economic assets and an independent income created by its own exertions.

There remains only the question of the form. America is still the home of the corporate form of enterprise. Where other races work through creeds and parties, we work through compacts. The Pilgrim Fathers, while still aboard the "Mayflower," drew up their plans on paper. The Colonies struggled with the Crown for charters which would define their rights and liberties. The Constitution of the United States is simply the articles of incorporation for an enterprise known as the United States of America. For the last sixty years we have witnessed the fantastic tropical growth of a whole jungle of industrial corporations.

Now Government itself—as the ultimate source of corporate powers—has turned to the process of incorporation in order to function more efficiently in the interest of the general welfare. The T.V.A. is the first great experiment along these lines. As it develops, it will generate a new form of society to match its growth and purpose and may in time supersede the formal political Government of the United States.

★

ON THE GREAT WALL

It is hard to escape the conclusion that the Tennessee Valley Authority—the marriage of Government with business—supplies the basis for a new social order in North America.

Even the bitterest enemies of "New Deal 'Socialism'" can accept this premise: that every society groups itself around its economic or business institutions to an extent which is modified only by its political traditions. Thus the great colonial landowners and merchants who created the American Constitution established an aristocratic republic modeled on the Whig aristocracy in England. As Jefferson and Jackson recognized the shift of economic power to the small landowners who were settling the West, America became democratic and most unwisely venerated the ideal of the virtuous farmer to the detriment of the cities. In the generations after the Civil War, the growth of the great banks and industrial corporations and the cities which reflected them engendered a sort of plutocratic feudalism to which our innocent radicals attach the unlikely label of "Fascism." Now that these economic institutions are being modified by advancing technology, a new concept is moving American society towards the creation of a "Welfare

State" which will replace the "Contract State" of the past.

Little of this process rests on theories. The theories more often follow than precede the changes which occur. It is only because these changes have not been publicly recognized that men assail or acclaim the philosopher or statesman who clothes the squalling facts in the swaddling clothes of words and doctrines. There is as yet no recognized social theory to describe the facts which created the T.V.A. In earlier chapters this book has simply traced the actions and reactions of a steady development which has now lasted for two generations of American life.

No one can glance through the voluminous hearings, reports and documents of the T.V.A. issue without realizing that here is something which proved stronger than statesmanship—wise or foolish—and more tenacious than even the organized instincts of a predatory business system. Something had to be done about the Tennessee River and, after many false starts, T.V.A. was the way people found to do it. In hitting upon the means, as so often happens, the ends of action have also defined themselves. Thus, what emerges from General Joe Wheeler's protoplasmic bill for the construction of a dam at Muscle Shoals is a program of action for American society and a new social set-up for America itself.

For the first time since Horace Greeley said, "Go West, young man! Go West!" we have found a national objective which opens up new social vistas for our people. Every race needs some concrete symbol of its destiny. If it is not a Pyramid erected to honor its gods, it must be a wall against its enemies.

In T.V.A. we have not found our Pyramids, although to

those who worship science and industrial technique it provides opportunity for the same sort of devotion as that which sends thousands to visit our "World's Fairs" and to tour the great factories of America. But we have located our Great Wall and have shown that men, brains and money can turn back the barbarians which threaten our civilization.

The waste of natural wealth is one thing. Perhaps a nation as rich as ours could afford to neglect the development of Muscle Shoals, as Congress later decreed we must neglect the development of tidal power at Passamaquoddy. But far worse is the destruction of the resources which create wealth, the drain of fertility, the devastation of forests, the impoverishment of our people and the degradation of our race in a stupid struggle against man-made adversity.

Here is the Great Wall on which we, as a nation, have mounted reluctant guard. The ramparts we ought to watch do not lie along our borders but in the heart of America. Our enemies are of our own household. Cornfields running down the river . . . cotton-fields draining into the Gulf of Mexico . . . wheat lands on the Great Plains dyeing the Missouri or powdering the cities of the distant East . . . forests cut down and gullies eating farms like cancers . . . poor whites and croppers . . . chiggers and hookworm, malaria, ignorance, bewilderment, apathy. . . .

The reconquest of the Mississippi Valley, not from the forests and the Indians, but from ourselves and our tribal customs, is the great practical purpose which American society has assigned itself. T.V.A., considered by itself, is interesting, in-

genious and quite important, but it would deserve no more continuous scrutiny than, say, the Panama Canal, unless it were the first step in a far larger process. We know now that when we dug the Panama Canal it launched us on a new era in world politics, that it doubled our naval power and halved our naval defense, that it made us dominant on the West Coast of South America and in the West Indies, that it forced us to play balance-of-power politics in Europe and Asia. These great national consequences—including our intervention in the World War and our growing hostility to Japan—flowed invisibly through the ditch we dug at Darien to link the two great oceans.

So T.V.A.'s consequences will continue to be visible long after the last dam is finished and the last seedling planted in the Valley. They will be visible in a drive on the other headwaters of the Mississippi Basin and on other social and industrial problems throughout the nation. Already T.V.A. takes form in New England, whose Governors demand the right to own the flood-control dams on the Connecticut River in the name of "States Rights"! And the great Bonneville-Grand Coulee Project in the Northwest is already a lusty brother of the T.V.A. itself.

II

As always, it is the job to be done which determines the form in which we organize America's Great Wall.

There are rivers to be tamed. The Ohio and Missouri, the Monongahela and the Wabash, the Connecticut, the Merrimac and the Penobscot; the Columbia, the Sacramento, the Colo-

rado and the Rio Grande; the Red River, the Platte, the Arkansas, and the Canadian; the Santee, the Cooper and the Peedee; the James, the Potomac, and the Susquehanna; the Delaware and the Hudson; the Savannah, the Tombigbee, the Coosa, and the Chattahoochee; the Snake, the St. Lawrence, the Gila, the Yellowstone, the Cumberland . . . rivers upon rivers, hundreds of streams flowing to the sea, all awaiting an intelligent use of their power, a scientific defense against their fury. And always the Mississippi River, like a liquid destiny.

There are forests to be planted. Thousands of square miles of forest land, now stump-scarred sandy wastes or foolishly divided into hardscrabble farms, await the C.C.C. There are billions of seedlings to be planted, fire lanes to be cut, fire patrols to be maintained. Shelter belts a thousand miles long are only the start.

There is dredging to be done, dykes and levees to be built, rapids to be surmounted, silt to be controlled, floods to be checked and reservoirs to be filled as insurance against recurring drought.

Then there is the grass. Millions of eaten acres await check-dams in their gullies, terracing, contour plowing, cover-crops to save them. There is a gigantic zoning program in the making, a land-use program which will control the fancied right of the individual to destroy his own property when by so doing he injures his neighbors and robs posterity.

There is food. Man is what he eats. Under the dietary bombardment of fat pork, cornmeal and molasses, the people of whole regions of the South have been driven close to biological

breakdown. There is work for generations of quiet, tactful education in diet and cookery. Home Economics workers, County Agents, rehabilitation and tenant programs are working to make it possible for the inhabitants of the richest river valley in the world to have simple, nourishing food.

There is disease. The battle against syphilis and malaria is not necessarily humanitarian or designed to protect the more fortunate from the risk of infection. For national safety, we must breed a race with the strength, energy and intelligence to face our physical problems at home and to defend ourselves in time of war. A syphilitic is a poor soldier. A man with malaria is a poor farmer. Both are poor workers.

Then there is the growing problem of relocating our industries in better relation to markets, supplies and power. As science advances both the technique of production and the speeding up of transport, it is more and more obvious that much of American industry is uneconomically situated. As electric power and industrial chemistry increase, much of our manufacturing can be decentralized from the present unwieldy congestion of the metropolitan areas. This will afford a saving in time of peace and a protection in time of war. Since the advent of the long-range military bomber, the cities which were the characteristic social development of the last century have become highly vulnerable targets, due not only to their size but to the complexity of the organization which their size demands. It is easier to disorganize a large factory than a hundred smaller ones. It is easier to demoralize the jam-packed inhabitants of a large city than the people of a dozen scattered towns.

Finally, there is the question of money. The job to be done in the Great Valley offers little or no attraction to private capital. Even the profitable use of power from dams, as the story of Muscle Shoals reveals, awaits investment on a scale and for purposes which discourage the most powerful utilities. Their financial resources are not great enough for them to undertake even the profitable part of the enterprise. They could do nothing for that part of the enterprise which involves a long wait for the direct return—as with reforestation and erosion control—and they cannot afford to undertake such works as flood-control dams, levees or navigation locks in which the return is indirect and purely social. This means that the Government must do the job itself on its own credit and recoup from future taxable values, not from immediate monetary profits.

The job to be done calls for a different kind of Government—not the bureaucratic wilderness of the past. It calls for a different kind of capital, not the finance capital of the past. It calls for a different set of social values, not the get-rich-quick individualism of the past. It means that the man who stops a forest fire or the man who designs a leak-proof dam will be considered more important than the man who cleans up a million dollars in the Stock Market or the man who sells more and worse shirts than his competitor. It also means that a man who cuts down his trees without proper authority and the man who grows the wrong kind of crops on the wrong kind of land will be treated as today we treat the moron who dumps sewage into a reservoir or keeps a pig inside the city limits.

This means a quiet revolution in our ways of thinking and

acting. It also means that we must provide a satisfactory outlet for the energies of our young people. One of the funniest and saddest tales in the records of the Forest Service tells how a young mountain girl in rural Kentucky set fire to the woods in order to attract the C.C.C. boys into her neighborhood, so that she might make dates with them between their tours of fire fighting. No social system which drives its young people to such desperate measures of biological urgency can long endure.

III

Contrary to the views of the moralists and the advice of the Tories, the spirit which this social revolution demands does not put too heavy a strain on the individual. It will not evoke the fierce devotion of a Crusade, save perhaps in time of sharp emergency. As a matter of historical fact, the Crusades themselves were fought by very ordinary men who were actuated by very human motives. The Pontiff who sped them to Palestine was shrewd enough to observe that Europe gained either way. If they recaptured the Holy Sepulchre from the Saracens, well and good. In the meantime Europe was well rid of their presence.

The Romans who built the roads and viaducts, the legionaries who fought the battles and stood guard on the Roman walls were far from perfect or even attractive men. They were rough, tough, greedy, cruel and lecherous fellows and they did the job which was necessary for the safety of their Empire, without even knowing what an Empire was. They cheered

the Caesars and died for them, or murdered them, without much recorded comprehension of the issues involved aside from their need for money.

The men who settled the Thirteen Colonies had no great sense of destiny. Many, if not most, had no choice in the matter of coming to America in the first place. In Georgia, they were actually transported convicts. In Virginia, they were gold-seeking adventurers and undisciplined wastrels. In Maryland, Pennsylvania and Massachusetts, they were members of persecuted creeds who had sought refuge in the howling wilderness. Many were simply shanghaied, runaways, indentured servants, bankrupts, men who had backed the losing side in a political or religious war. Some, like the Scotch-Irish, were fleeing from economic catastrophe in the Old World. Their motives were mixed and very human, and the history of the times shows that they had little or no realization that they were creating a new civilization until long after they had begun to do so.

So with the American epic of the settling of the West. For a hundred years the West was like a perpetual war to which any man who had offended his neighbors or had failed in business or was bored with the restraints of civilization could run away. The young man who had got a girl with child and did not wish to marry her, the man whose creditors were closing in, the chicken thieves and bank robbers, the no-goods and rascals of the nation, simply picked up and went West. Imprudent farmers who had farmed away the fertility of the Eastern fields went looking for easy land which cost them

nothing. When gold and silver were found the whole world sent its adventurers, whores, gamblers and remittance men on the trail to California and Colorado. After the Civil War, demobilized youngsters from both armies hit the highways west to find more gunplay and excitement than awaited them in bean-fed Boston or ruined Richmond. The building of the railways poured the Chinese and the Irish into the West. The covered wagons did not carry heroes—even the Mormons fled to Utah to escape persecution in Illinois rather than to realize the dream of the most remarkable agricultural civilization in North America—but they carried very ordinary people who did heroic deeds almost entirely against their will. There again the great social change was accomplished by individuals who had no particular idea of what they were doing. Even when the vigilantes began hanging horse thieves and the sheriffs began to outshoot the bad-men, the West was not aware that it had closed a chapter in our social history.

For that matter, we ourselves are the same people who created the shoddy social confusion of the 1920's. We made the bull markets, we voted for Harding, Coolidge and Hoover. We laughed at Teapot Dome, we watched the stock ticker and put up margin and sent our savings into shaky foreign loans. We honored the rich men more than we honored the wise men. We heroized a Lindbergh and then all but crucified him. We ourselves were the irresponsible men and women who took part in the ten-years' economic orgy after the World War, the people who ran away from world-saving with Woodrow Wilson and

who helped plunge the whole world into the mire in which it is still struggling.

Yet we have changed the pattern of our ways, without becoming better or much wiser in the process. We have, unconsciously, begun to revalue all of our social values. We admire a Lilienthal, not because he is a smart business man but because his smartness is utilized in the T.V.A. rather than in Wall Street. We respect Roosevelt not because he is a shrewd political leader but because his shrewdness is employed in Washington and not in Detroit or Pittsburgh or Hollywood. We take pride and interest in the activities of men like Henry Wallace, Harold Ickes and Harry Hopkins, where we used to admire men like Insull, Mitchell and Wiggin of the bull-market era.

Without knowing it, the spirit in which we view America and the problems of our country has changed profoundly and is still changing. This change is largely due to the T.V.A. and the ballast of physical achievement with which it has steadied the gusty idealism in the upper rigging of the New Deal. This physical achievement is what marks the real change in our point of view. The change will continue to grow so long as the work goes forward and so long as there is the big job to be done. We are expressing our new social philosophy with seedlings, we are saying it with concrete, dynamite, barges and transmission lines. This sort of language talks louder than speeches, stock prospectuses or quarterly checks in the mail. We have found what the Caesars found: that it was not so much the Roman legions who made the Roman roads as it was the roads which made the legions.

IV

One thing is certain: When we have mastered the problems of the Tennessee Valley and move on to the great campaign in the Mississippi Valley, we shall have developed the men and methods needed to do the job.

As a matter of fact, prolonged training is not merely as important as is commonly supposed. Intensive training can accomplish wonders when people are eager to learn. Substandard folk or people with moderate ability seek to buttress their insufficiency or to protect their racket by laying solemn stress on formal requirements. You may not become a union carpenter or typographer, whatever your skill, without years of apprenticeship. You may not practice law without studying for three years in a law school. You may not teach in the schools without a certificate, in the colleges without a couple of academic degrees. Genius and native talent must be slowed down and careers must be closed by invoking ritual and routine to protect the organized practitioners.

Most of this is nonsense. It is impossible to develop a competent doctor, engineer, chemist or scientist without much training and experience, but the rank and file of Americans are almost indefinitely adaptable. This is a common experience in time of war, when errors of judgment are punished by sudden death. The trained officers of the high command—the experts in logistics, ballistics, chemical warfare and the organization of supply—cannot be improvised, though even these can be developed and even the general staff has been known to be stubbornly mistaken on vital issues. Under pressure, however, it is

astonishing how swiftly human raw material becomes good combat-pilots, firm disciplinarians, efficient top sergeants, cautious and courageous officers, fierce and tenacious infantry. The miracle of training comes from the force of events and from the willingness of the men themselves. In April, 1917, the U.S. Army was a handful of officers and men who had made none too good a showing in recent operations on the Mexican border. In November, 1918, the A.E.F. was a formidable fighting force which stood comparison with even the incomparable German Army.

Men have already been attracted by the New Deal into the public service, men who, a decade earlier, would have gone into private business as a matter of course. Administrators like Lilienthal and Harcourt Morgan of the T.V.A. are matched by others like Jerome Frank of the S.E.C., Bill Douglas of the Supreme Court, Adolph Berle of the State Department, Silcox of the Forest Service, Baldwin, Garst and Ward of the Farm Security Administration, Banks of the Reclamation Service, Bob Jackson, Thurman Arnold and Frank Murphy in Justice, Edison in the Navy, Slattery in the Post Office, Ickes and Chapman in the Interior, Wallace and Wilson in Agriculture, Harry Hopkins, Aubrey Williams and Howard Hunter of the old W.P.A., Saunders, Andrews and Lubin in Labor; Eccles and Thurston in the Federal Reserve; Carmody in the Works Administration; Fechner in the C.C.C.; Madden in the N.L.R.B.; Altmeyer in Social Security; Mellett and Berger in the Office of Government Reports; as well as a host of other figures, including the brilliant team of Corcoran and Cohen and the

galaxy of hard-working young liberals who have staffed the New Deal bureaus.

It has been shown that in America, where there has been no accepted tradition of public service and where politics have long been partitioned between machine-bosses and occasional meteoric reformers, it is possible to recruit, organize and train men who are competent to understand and administer the growing complexities of modern government. To the cynics who say that it can't be done, that it goes against human nature, the answer is that it is being done every day in the Army and the Navy and the civilian services of the Government: to subordinate the individual's profit motive to the public service on satisfactory and self-respecting terms.

Our troops are already on the Great Wall, thousands of them, and millions more would "spring to arms overnight" if the Government wholeheartedly opened its campaign in the Great Valley. The bronzed boys in the C.C.C. camps were the slum children, the "Dead End kids" of yesterday, and not a season passes but some of them lay down their lives very literally for their country—in fire and flood, from sunstroke, snakebite, lightning and falling trees—as they try to put America together again. The despised W.P.A. workers, the "shovel-leaners" of Tory myth, have completed useful public works on a scale which recalls the Roman way. The County Agents, the Farm Security men, the Home Economics workers, the social workers and many of the politicians are working long hours at low pay and with little public recognition to hold the people together and show them the path to the future. The Forest Rangers,

the engineers who make dams which are bigger than the Constitution and the courts, the crews who string wires and install generators, the doctors and nurses of the public health services—they are all working behind the billboards and below the surfaces of American life while Congress and the newspapers thunder about "the American way" and the spirit of individual initiative.

It recalls another, earlier picture—when another Roosevelt "took" Panama and the Senate debated his action bitterly and long, and as the debate went on, the Canal went on, too. And by the time the Canal was finished, the debate was silenced and America faced a new destiny in the New World.

V

It is hard to resist the urge to prophesy and, except for the fact that all past prophecies have been either too mild or too extravagant, it would be possible to chart the future society of an America which has faced its own enemies and has organized to master the Great Valley.

Here are some of the developments which can already be dimly sensed: the evacuation or resettlement of wide areas of the nation; thousands of people moving out of the Great Plains (as thousands have already most tragically been forced to do), away from the cut-over regions of the Lake States, from the worn-out lands of the Old South, from industrial ghost-cities, from the cotton country and the worked-out coal regions; thousands—even millions—of acres being taken out of uneconomic cultivation by the pressure of hardship and the Government's

land-use programs; the replanting of forests, the building of dams and reservoirs, the development of new industries on a more secure and more responsible basis; the end of haphazard growth and irresponsible confusion and waste; the growing usefulness and influence of the Federal officials, controlled by political democracy but governed by a physical plan of operations which will survive changes of administration at Washington and which will adapt itself to shifts in the social mood.

All of this must be financed, understood and directed from some central source, and a permanent staff of highly trained administrators and scientists will be needed to manage the national plan of campaign. As the joblessness of youth becomes more appalling and as general insecurity is reflected in falling birth rates and shrinking profits, the C.C.C., W.P.A. and N.Y.A. will be increased and made into a permanent part of our economy. Compulsory economic service for young men and women may be taken as a matter of course, even as a privilege, since today the children of the rich pay to attend summer camps or go on Western packing-trips. The children of the poor will be paid to do much the same thing in the Civilian Conservation Corps. The educational ideas of Dr. Arthur Morgan at Antioch College are based on the same principle—that formal book-education should be balanced by travel and useful employment.

This will not come easily or automatically. The next great economic crisis may be postponed until 1950 or thereabouts, and there is likely to be a relaxation of the national effort, both in T.V.A. and on other fronts, before that date. Then, as in

the past, the weather-cycle will bring the floods and dust storms and the ruin of our fertile lands will become once more a matter of life and death to millions of our people. By then the forces of corporate business will have completed their next cycle of boom and bust and the new tide of social values which is silently flooding around us will ratify the sort of change which, in retrospect, we call a revolution.

And then, thanks to T.V.A. and thanks to the wide human and physical front on which it and the New Deal has maintained the offensive, we shall have the technique, the tradition, the experience, the men and the morale to carry our war through to a victorious conclusion. The money will always be forthcoming, in the form of cash or human effort, to do whatever the American people decide is worth doing. We shall have the organization to take the raw recruits from the slums, the breadlines, the squatters' camps, the Hoovervilles, hobo jungles and migrant jalopies, and give them discipline, dignity and courage to face the campaign to make America the master of the Great Valley and the American people master of themselves.

★

OUR TWENTY YEARS' WAR

To MASTER the Great Valley of America is a task which will consume at least a century of human effort. Since the mind of man cannot foresee the progress of society for as short a period as a single generation—the Free Soil Republicans of the 1860's did not dream that their revolution would create the Trusts of the 1880's, and the high-pressure boys of the 1920's never imagined that they would be followed by the joblessness and confusion of the 1930's—what we have to consider is necessarily a war of limited objectives.

As has already been noted, the very idea of Government planning is distasteful to conservatives who would never have crossed a bridge or traveled on a train if large, responsible social groups had not first planned things patiently. The National Resources Board has been kicked around by Congress, and much of the fury against the reserve contemplated by the Social Security Board sprang from the fact that the Board projected a security system for the next fifty years, in taking account of its eventual liabilities.

The next step after the T.V.A. has already been foreshadowed, however, by the measures popularly known as the

"Seven T.V.A.'s Bill." This proposal was introduced in 1937, the fatal year when a Tory Congress used the Supreme Court Bill to filibuster against the entire program which represented the fruits of the New Deal victory of 1936. The measure did not progress beyond the stage of hearings. The hearings themselves evoked such savage opposition from the private utilities, the commercial fertilizer interests and their stooges as to suggest the hearings on Senator Norris's early Muscle Shoals Bills. Every argument—including fulsome professions of friendship for the Corps of Army Engineers (themselves almost treasonably lobbying indirectly against the measure) was used to combat the proposal that the Government should expand regional planning outside the Tennessee Valley area.

The Bill itself proposed to divide the United States into seven regions for the purpose of advance planning of public works for power, conservation, etc. There was, of course, the T.V.A. There was an Eastern region which blanketed the Atlantic seaboard. There was a Northern region which included the upper Ohio. There was a Southern power region, an Upper Mississippi region, a Missouri region, a Northwest region based on the Columbia River and a Southwest region based on the Colorado River.

This plan committed nobody to anything, except some regional control of applications for power works, etc. It was a preliminary notion to provide the skeleton for future organization and growth. It suggested that the principles of the T.V.A. might usefully be extended, in time, into other regions, with appropriate variations. As such, it committed the country far

less than the division into Army Corps Areas, Federal Reserve Districts and U. S. Forest Regions. But the fury of the utility interests made it clear that the issue was whether the American people should even consider the possibility of future planning for their natural resources. The Bill still slumbers in Committee, and the Governor of Vermont made front-page news by demanding that Federal flood-control projects in his State should pay taxes and agree to turn the power generated over to some private interest. And out in Oregon the private utilities and the Tory Democratic Governor blocked the sale of Bonneville power to the people of Oregon, though those north of the Columbia River in Washington were permitted to enjoy the benefits of cheap electricity. After being the foe of the corporations for fifty years, "States Rights" had now become their last refuge.

This means that the next line of trenches, after the T.V.A. itself, is the establishment of "Seven T.V.A.'s" or some substitute framework for co-ordination and analysis in the drive by the American people to control the resources which otherwise will destroy them.

As matters stand, seven regions are too few to do the job. The Eastern region should be subdivided at the Potomac. A Mississippi Valley Authority should be set up to co-ordinate the work of the power regions in the central drainage area of the Continent. The National Resources Board, centered in the White House, should supervise the whole program. The Federal problem remains in different form: to find the appropriate

central authority and at the same time to encourage regional diversities of method and objective.

On this line of the Seven T.V.A.'s the new social forces of the future will meet the massed financial battalions which represent the past. Here is the Maginot Line of our generation's twenty-years' war. The preliminary hearings showed clearly that the utilities regard their position as decisive. If they can stop "planning" outside of the Tennessee Valley, they can leave the T.V.A. surrounded by private profiteering, a "socialistic" island in a stormy sea of corporations.

In this struggle, the Government forces are not yet united. First of all, they must impose an attitude of neutrality on the Army Engineers who have made their own peace with the utilities and who were largely instrumental in discrediting the proposed extension of regional planning. Here is involved more than professional jealousy. The Army, in its role of defense, must maintain close and friendly relations with all existing major industries, as a prerequisite for efficient economic mobilization in a national emergency. There are also purely human factors to be overcome. The hearings on the bills brought out the fact that the utilities are overcharging the American people by sums amounting to over a billion dollars a year and that the president of Commonwealth & Southern had his salary raised from $43,500 to over $100,000 a year at the depth of the Hoover Depression. There is no limit to what men will do when such emoluments and unearned profits are at stake.

Here then is the next great battle for our Valley. Here is where the enemies of public power must stand and fight. If

they are defeated here they have lost their war. If they win here—even temporarily—they can counter-attack on T.V.A. itself, as was attempted by Congressman May of Kentucky in the spring of 1939 when he used the first Willkie-Lilienthal Treaty as an excuse to frame a bill designed to cripple the Authority's power program. This purely political issue will be decided at the election of 1940.

II

Here again, the "yardstick" stands between the T.V.A. and the pack of utility magnates. This is true not only of the Tennessee Valley Authority but of other power regions in the United States. Bases have been established at three of the five points in America where low rates of public power can be woven into the fabric of contract which supports our business life.

The Tennessee Valley is only one of those points and there it has spun a web of agreements with municipalities, rural cooperatives and industrial consumers which cannot easily be brushed aside. For a future Congress to order the Authority to violate its contracts would immediately raise issues of constitutionality which the Supreme Court would have to consider. To compel the T.V.A. to raise its rates to private consumers would also create such public resentment in the region that the political consequences might well be revolutionary.

In all this it is important to remember that T.V.A. was not the first of the Federal experiments in the public generation and distribution of power. The Reclamation Bureau had done

so in isolated cases since 1906. The Boulder Dam Project on the Colorado River, near Las Vegas, Nevada, was where the camel really got his nose under the tent. The Boulder Dam Bill was signed by President Hoover, though very much against his will, and the Dam for a short time bore his reluctant name. Boulder Dam is not only one of the wonders of the engineering world (eclipsed only by Grand Coulee). It is also the first formal large-scale power development undertaken by the Federal Government. It supplies the municipal power plant of Los Angeles with power and also serves drainage districts and other large consumers with cheap wholesale power. The pylons of its transmission lines stride across the Nevada deserts with seven-league boots, and it survived the gentle attentions of the utility lawyers and the Federal courts long before T.V.A. became an issue.

At Bonneville Dam in the great gorge of the Columbia River above Portland, Oregon, there is another power yardstick in operation. The marvelous structure which human skill is building at Grand Coulee is more than double the size of the Great Pyramid and will create a huge fertile oasis in the melancholy deserts of Central Washington. The Columbia is being raised 600 feet by the dam itself, and its flood waters are to be pumped another 600 feet, by the power the dam harnesses, into the great rock-walled trench—the Coulee—which the Columbia River carved to the south thousands of years ago when the glaciers blocked the river at the site of the present dam. This ditch is to be dammed at both ends, creating a huge reservoir for irrigation purposes. Under the plans

worked out by the late J. D. Ross, who combined the qualities of Arthur Morgan and David Lilienthal, the power generated at Bonneville, Grand Coulee and the new Skagit project near Seattle is to serve a grid which will create an industrial as well as agricultural empire in the Northwest and supply the floods of power needed to develop the phosphates of Idaho and Utah.

Two of the New Deal's power yardsticks remain for the future. The Treaty with Canada for navigation and power development on the international section of the St. Lawrence River remains incomplete. Ontario's power policy supplied George Norris and the New Deal with the concept of low-priced electricity, but private utility interests in Quebec and northern New York have opposed the project. The Port of New York itself fears the diversion of shipping if the St. Lawrence river becomes navigable to deep-sea vessels and the Mohawk Valley industrial satrapy and the powerful Niagara & Hudson utility combine alike resent the proposed New Deal power policies. It was in New York State and in relation to this power issue that Franklin Roosevelt first developed the yardstick idea. Today the City of Buffalo, within twenty miles of the power at Niagara Falls, still uses steamplants to generate power; and the industries of the richest State in the Union are still deprived of economic access to the natural wealth of the region.

The fifth basing-point for the New Deal was the Passamaquoddy tidal power project on the border between Maine and the Canadian Province of New Brunswick. The surging 40-foot tides of the Bay of Fundy suggested that here we could

tap another source of inexhaustible power. The 'Quoddy project was an act of daring imagination. It was also a deadly thrust at the heart of the old Power Trust, for Maine had fallen under Sam Insull's empire during the 1920's and the New England power magnates were the toughest in all America. They ganged up on Congress and caused work to be stopped on the tidal dams which the Army Engineers had started to construct.

The St. Lawrence Waterway and the Passamaquoddy are bound to come—the first because the river represents not only millions of kilowatts running to waste every day but also an economic highway to the heart of the middle West; the second because it is time that man reached further in his restless search for dominion. It is time that we tapped the power of the racing tides at Passamaquoddy, Casco Bay, Block Island, Hell Gate, Barnegat and the Virginia Capes. It is time that we employed Claude Neon's method of using the temperature of water to generate power from the Gulf Stream. It is time that we set up batteries of windmills along the watersheds to trap the power of the winds, time that we spread our nets for the daily power of the sun. Within the next generation we shall see all this and much more come to pass as the New Deal trends become established as deep and steady currents of economic action and political enterprise.

III

All these things are coming because the opposition which their advent has engendered is merely an opposition. It is a policy

of negation, a program of inaction which offers no alternative.

The opposition to the Seven T.V.A.'s took many forms and colors, ranging all the way from maudlin sympathy for the Army Engineers to deep concern for "States Rights." But whether the opponents talked about the Constitution or about navigation, stream pollution or "dictatorship," it was always clear that what they feared was the generation of cheap hydro-electric power by the Federal Government.

The private utilities and those who speak for them have not the means or the desire to build the dams and generate the power for themselves. Forty years of legislation and court decisions have taught them the folly of expecting the Government to bear the costs and give them the profits. They want nothing to disturb the existing structure of rates, corporate ownership and financial and stock market affiliations. The consumption of electricity is growing steadily, despite the depression. Plants have been allowed to depreciate, replacements have been few, expansion slight. Rates have come down only as a result of yardstick competition and dwindling purchasing-power. The private companies' monopoly of service has become confused with a monopoly of price and profits. On the basis of the Ontario rates, the present system is costing us a billion dollars a year more than it is worth.

Under these conditions, the power companies have no wish to go forward, no desire to do more than enjoy what they already have, no fear but the fear of competition.

With this attitude, the people cannot possibly serve their own interests by yielding to the persuasion of the so-called conserv-

atives. Mr. Willkie and his brothers in the Edison Electric Institute do not intend to build big dams for power and will not build dams for navigation or flood control. Why should they? The Tories can find no easy or immediate profit in preventing soil erosion, replanting forests or salvaging the sharecroppers. The only form of Government conservation which appeals to them is the work of the ritzy Biological Survey in protecting the supply of wild ducks which wealthy Wall Street speculators shoot in the tidal marshes of the Carolinas. They do not see the point of giving work to the unemployed who might otherwise, in desperation, break the power of organized labor and destroy union wages and working standards in industry.

This means that the opponents of the T.V.A. and of the New Deal's plan for the reconquest of North America propose to do nothing themselves and propose to let nobody else do anything either. This is what dooms the T.V.A.'s foes in the long run. For it is an old principle of strategy that, in war, even a mistaken action is better than no action at all. This is a war which we are fighting, a bloodless but bitter struggle for great stakes: power today and survival tomorrow. People may well pause between bouts of action, either for rest or to take stock of the situation, but they have never long tolerated an attitude of "do-nothingism" nor have they long remained patient with those who mistook their patience for indifference.

After the World War, the War generation accepted "normalcy" because they were weary of being used too much, too violently, and too arbitrarily, by the powers of Government.

After the New Deal, the Tories argue—in the light of the small amount of coercion which has been applied to large industry—everybody in America will be weary of "regimentation." They forget that young Americans created the New Deal to give the people jobs and that any criticism of the Roosevelt program on the part of these young Americans is not that it went too far but that it did not go far enough. The nation's mood, as we approach the end of Roosevelt's second term, is a demand for action, for decision and progress. In creating this mood, the T.V.A. has played an important part.

IV

The choice no longer lies between the T.V.A. and the private ownership of power. This has never been the alternative, for at the maximum development of hydro by the Government not more than ten or fifteen per cent of the national output of kilowatts could be produced under public ownership. There has never been a moment since the first debates about Muscle Shoals when the private utility interests needed to fear for the future.

The real issue scarcely touches power at all. The expenditures and revenues on a Seven T.V.A.'s program, with Passamaquoddy thrown in, would be only a drop in the bucket of America's wealth and national income.

The choice which we shall make in the next few years lies between the T.V.A. idea and what must be called fascism. The latter means strangulation of our national life, the former a social revolution which will rationalize our political Gov-

ernment to fit the frame-work of our economic resources and subdue the empire of private business to the purposes of the American State. The industrial magnates who supported Hitler and Mussolini thought that they were hiring clever agitators to hold down organized labor. The continuing Fascist and Nazi revolutions showed that the "solution" was only less expensive than Communism itself, in terms of what the magnates wanted. They lost money, they lost power, they lost the freedom of choice and action which they had previously enjoyed. In the name of fighting Karl Marx, the Germans created Goering, and the Italians established a corporative State which put Italian industry in chains.

So if T.V.A. is stopped, scrapped or even seriously hindered in its program, if the processes of regional planning are indefinitely postponed, if the yardsticks are broken, W.P.A. demobilized, the C.C.C. camps closed, the Soil Erosion Service economized, the phosphate formulas turned over to the fertilizer industry and another Teapot Dome made of the power resources of the nation—then the stage will be set for a reaction more violent than that of 1932, when the millionaires bought secret rural hideouts and stocked them with canned goods and liquor against the Day of Wrath.

For the waste of natural wealth, human welfare and social morale which attended the past ten years, if renewed, will bring our society up against the brutal issue of its power to survive. The finest Wall Street quotations in the world will not check a single Alabama gully or save one Dust Bowl farmer from seeing his fields blow away. Stout editorials in the New

York papers and stirring speeches in Congress will not stop a flood or extinguish a forest fire or restore the phosphate in the soil of the corn belt. Low diet, low vitality, lack of education and sanitation will breed pestilences, waves of hysteria and bigotry. Men will not like to see their children starve and they will avoid looking their wives in the eye. They will run away. They will commit petty crimes in order to achieve the comfort and security of a jail sentence. Homes will be broken. Property will be under pressure. Young men will not marry. Girls and children will compete for the jobs of men. The very springs of good breeding and statesmanship which gave us the Roosevelts and Wilson will dry up, and the art of democratic politics will yield to the tom-tom demagogy of those who preach hatred and terror and feed the power of those who pay them to do so. The American Dream will become a waking nightmare as millions of decent people lack knowledge of when they will next eat or how they can get a living.

This is not mere alarmism. It is a temperate description of the conditions which prevail in any declining economic and social order; it is a casual catalogue of symptoms which we have already witnessed in America and which are again growing after being held in check for seven gallant years.

The American people are too vital a race to take this sort of development lying down. They will endure misery in time of scarcity, with heroic patience and humorous self-discipline. But they will not stand for hardship in the midst of plenty. Farmers who met drought, flood and grasshoppers philosophically became savage when they saw themselves ruined by pro-

ducing good crops. Industrial workers who had accepted occasional unemployment and physical injury as their own hard luck become dangerous when they see idle men, idle factories, idle money, unused raw materials and starving millions. The middle-income, professional and small business groups were scared to death in 1932; by 1937 they had become smug. If they start slipping back again, they will become desperate.

The policy which the T.V.A. typifies looks to the future, while the Tories look to the past. We have already decided that we are going to save America and ourselves from needless destitution by a more practical and farsighted use of our resources. A generation ago our hopeful fathers planned a "normal" business system which they believed would take care of their posterity. We are that posterity today and we have claimed the right to replan America for our children in terms of our own experience. We do not fear the future or scorn the past. The present is yesterday's future and the past must learn to bury its dead.

The future is ours.

This book has been produced wholly under union conditions. The paper was made, the type set, the plates electrotyped, and the printing and binding done in union shops affiliated with the American Federation of Labor. All employees of Modern Age Books, Inc., are members of the Book and Magazine Guild, Local No. 18 of the United Office and Professional Workers of America, affiliated with the Congress of Industrial Organizations.