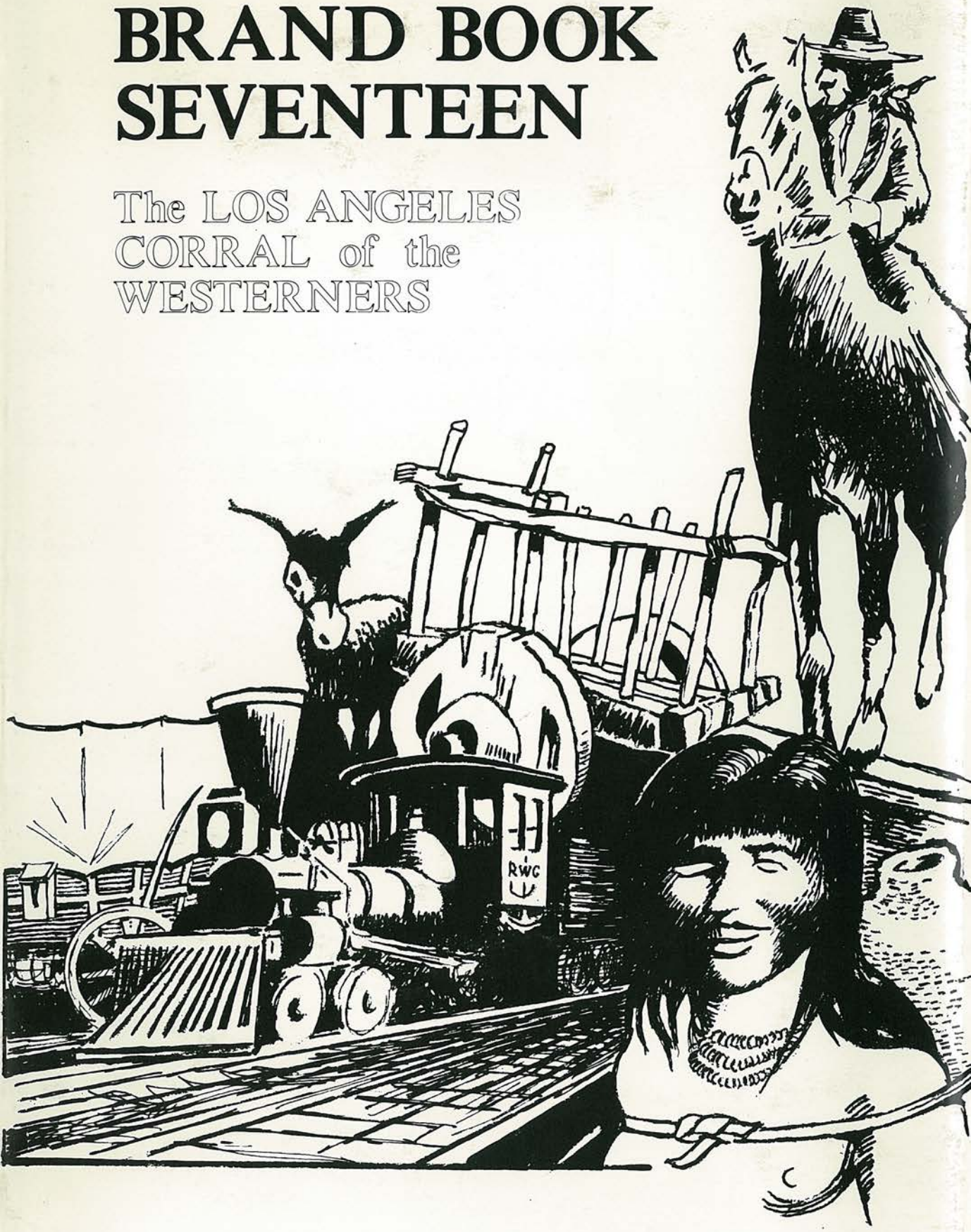
BRAND BOOK SEVENTEEN

The LOS ANGELES CORRAL of the WESTERNERS



Los Angeles Corral

BRAND BOOK SEVENTEEN

The LOS ANGELES CORRAL of the WESTERNERS

Konrad F. Schreier, Jr.
EDITOR

LOS ANGELES, CALIFORNIA, 1986

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In Memoriam

Ward G. DeWitt
Clifford M. Drury
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Dudley C. Gordon
John M. Jeffrey
Bert H. Olson

RAY ALLEN BILLINGTON was a Member of the Los Angeles Corral of the Westerners from 1963 until his death in 1981. In 1975 he served as Sheriff of the Los Angeles Corral. His delightful talks were a highpoint of the Corral meetings, but that was only a part of Ray Allen Billington.

This gifted historian was born in Michigan in 1903, graduated from the University of Wisconsin, received his Master's degree in history at the University of Michigan, and his Doctorate in history from Harvard University in 1933.

Ray began teaching at Clark University, and in 1937 he moved on to Smith College. In 1944 he started moving west by going to Northwestern University as Professor of History. In 1963 he was appointed Senior Research Associate at the Henry E. Huntington Library, at which time he joined the Los Angeles Corral to continue his Westerners activity, being in earlier years an active member of the original Chicago Corral.

As well as being a teacher, Ray was a productive writer. He published some twenty-one books, edited more, and wrote many shorter pieces. His favorite form of lighter "literature" was the limerick, so it is fitting that his last book, published the year of his death, was *Limericks, Historical and Hysterical.*.

Ray left us many happy memories, and for this we are all truly thankful. A Dios, Ray.

The Los Angeles Corral
dedicates this
Brand Book 17
to the memory of

RAY ALLEN BILLINGTON
1903-1981

A Limerick by Ray was appealing
Because he conveyed a real feeling
For mankind's condition
In any position –
Like lying or standing or even kneeling...

(by Paul Zall through Martin Ridge)

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Acknowledgments

I am sure everybody has noticed how much one of these acknowledgments looks like one of those endless award ceremony winner's "thank you" speeches – that's because they both try to say the same thing: "And I'd like to thank all those people who helped me along the way..."

Well I'd like to thank those of the Los Angeles Corral since, without you great folks there would not be a *Brand Book 17*. Nor would there ever have been *any* of the Corral's wonderful series of Brand Books.

Especially I want to thank those who contributed the articles which make up the book. You will find their names in the Table of Contents, and their credentials in the Contributors pages.

Then I'd like to thank some people who also helped: Past Sheriff Henry H. "Hank" Clifford did duty as associate editor and read everything, making invaluable comments and suggestions. Member Richard W. "The Curmudgeon" Cunningham, art director for the book, did the wonderful initial letters for the articles and the attractive layout of the pages. My wife, Nancy, had the ticklish job of copy editor. Donald Duke's editorial advice was invaluable. And the Clarks, Arthur H. and Robert A., served as production managers, without whom the book would never have gotten into print.

And to everybody else who had anything to do with getting this book out, my thanks go on...and on!

Thank you all,
Konrad F. Schreier, Jr., Editor

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Preface

When work on *Brand Book 17* began, the theme of transportation and communication in the Far West was suggested. Although the term Far West is often used, it is a seldom understood name for a huge and important part of the United States. It can be best defined as the states of California, Oregon and Washington along with the western portions of Arizona, Nevada and Utah. As well as not being understood, the Far West is often underrated or ignored in the study of America history.

This eclectic collection of material is by no means a complete or broad study; however, it sticks to the original theme, presenting variety within its limitation. It is hoped this presentation will help its readers better understand the Far West since it is done from that point of view.

Bear in mind that a Far Westerner thinks the East begins at Denver. By the time he gets to the Atlantic Ocean he has reached the Far East.

On behalf of the Los Angeles Corral of The Westerners, I hope its readers will enjoy *Brand Book 17* as much as the members of the Los Angeles are dedicated to their *Brand Book* series of publications.

Konrad F. Schreier, Jr., Editor

Before the Wheel – Indian Transportation B.C. – Before Cabrillo

by RICHARD CUNNINGHAM

ANY BOOK dedicated to the subject of Western Frontier transportation should include some description of the solutions of the Indians who formed the reception committees that met C. Columbus, H. Cortez, Elder Brewster, J. Serra and the rest. Failure to do so perpetuates the down-the-nose observations of the immigrant sailors, soldiers, psalm singers, traders, trappers, high-graders, sod busters, merchants and confidence men whose reports have made it popular to respond to the subject of Indian transportation and communication with a snort.

The Western Frontier, as beaten to death by countless profound observers, began on the eastern seaboard of North America and moved west. A series of steady-by-jerks scouting, patrolling and expeditionary operations finally terminated when the benevolent liberators ran out of land on the beaches of the Pacific.

The area is vast, and the number of native Indian tribes is interminable. Addressing any single aspect of native cultures demands a selective approach. Consequently, in dealing with aboriginal transport and communications, it makes sense to choose a prototypical region that addresses the subject in a reasonably thorough manner, accepting that some exotic modes may be left to another time.

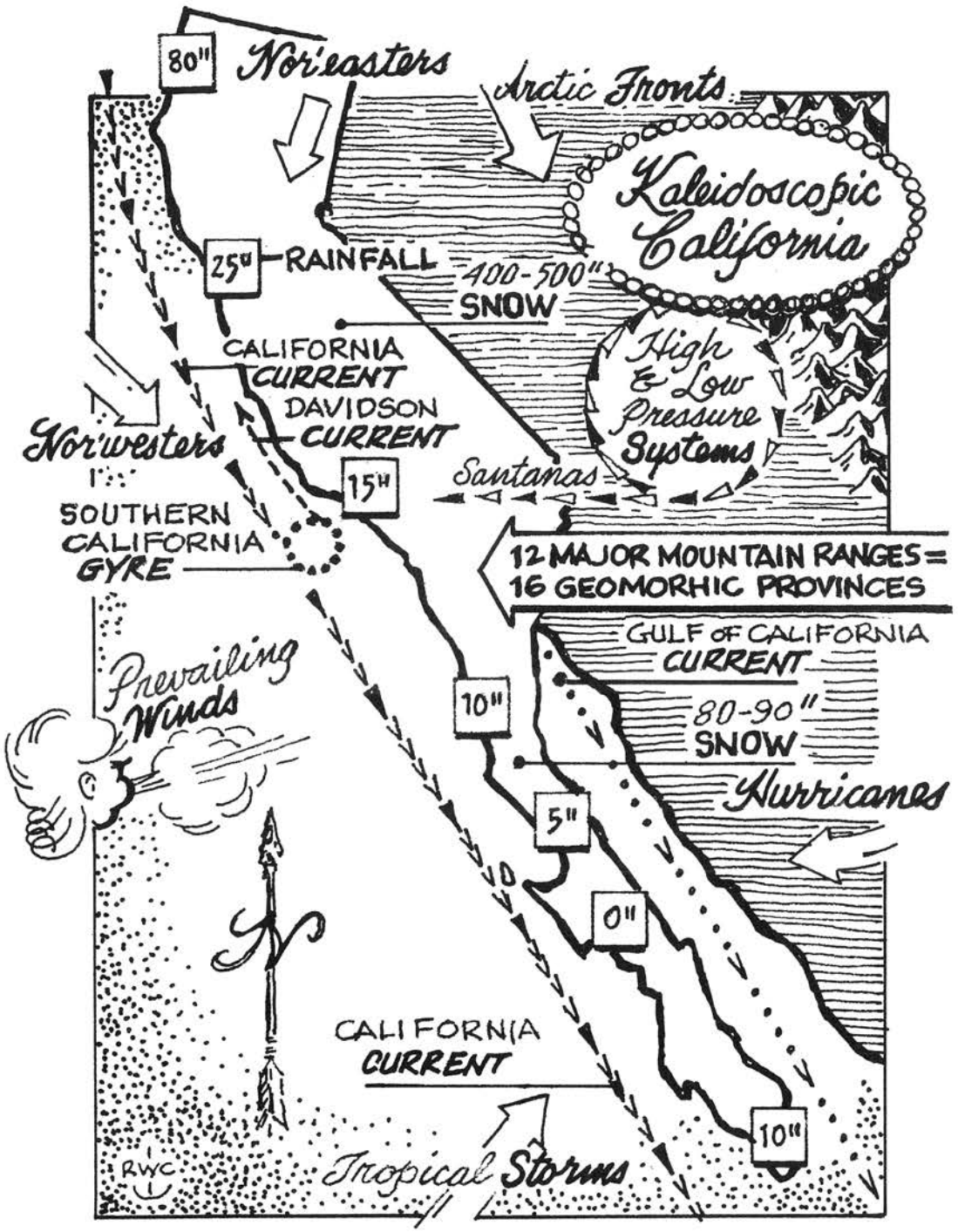
The North American Indians relied on surface and water transport and visual and oral communication. They moved incalculable tons of household goods, harvested or hunted commodities, and general freight each year despite the fact that they lacked saddle animals, draft stock or the wheel.

The only domesticated animal the native Americans used was the dog. Other than pulling sleds in the sub-Arctic and dragging small travois across the Great Plains, man's best friend was generally content to scratch fleas, yap at the moon, and sometimes provide a part of the protein intake. Smoke signals, forerunners of our modern hilltop microwave communication nets, have been reported in numerous "cowboy and injun" confrontations in print and film.

Admittedly dogs and smoke signals were not common to the area chosen for this profile: the Californias. This region employed nearly all the methods of North American Indian land transport, but possessed an additional distinction: it was unique in the worldwide annals of primitive water transportation. This choice may annoy Indian buffs who prefer the vast eastern confederations or the tribes of the Great Plains or Pueblos, but their lands did not enjoy the tremendous diversity of cultures or terrain found in the Californias. Afficianados of primitive watercraft – champions of Oceania's voyaging canoes, Peru's sailing rafts, the majestic dugouts of the Northwest Coast, or the birch bark canoes of the Great Lakes region – will doubtless query the use of the word *unique* when describing California water transportation. Both of these implied concerns will be dealt with further along, but before digging into the specifics of the various modes there are certain important factors that bear on the rationale of specific choices.

The first of these considerations is geography which imposed in the Californias an unparalleled cultural anomaly. The Indian Californias ran from Cabo San Lucas at 22° 52′ north latitude to the Oregon line at 42° north, defined in the east by today's states of Nevada and Arizona and the Sea of Cortez, a land area of 211,973 square miles. The length of the Californias measured along the north/south bird flyway axis adds up to 1640 miles, while the shores washed by the Pacific and the Sea of Cortez run to around 2,200.

This great chunk of western North America, consisting of the constantly moving, adjoining extremities of the American and Pacific tectonic plates, is carved up by twelve principal mountain ranges noted for forty-one peaks over 10,000 feet, including four recently active volcanoes, and fifty-seven offshore peaks that constitute the region's adjacent islands. These ranges serve to aid in the definition of sixteen geomorphic regions ranging from sub-


80"
Nor'easters
Arctic Fronts
Kaleidoscopic California
25"
RAINFALL
400-500"
SNOW
CALIFORNIA
CURRENT
DAVIDSON
CURRENT
High & Low Pressure Systems
Nor'westers
15"
Santanas
SOUTHERN
CALIFORNIA
GYRE
12 MAJOR MOUNTAIN RANGES =
16 GEOMORHIC PROVINCES
GULF of CALIFORNIA
CURRENT
Prevailing Winds
10"
80-90"
SNOW
Hurricanes
5"
0"
CALIFORNIA
CURRENT
10"
RWC
Tropical Storms

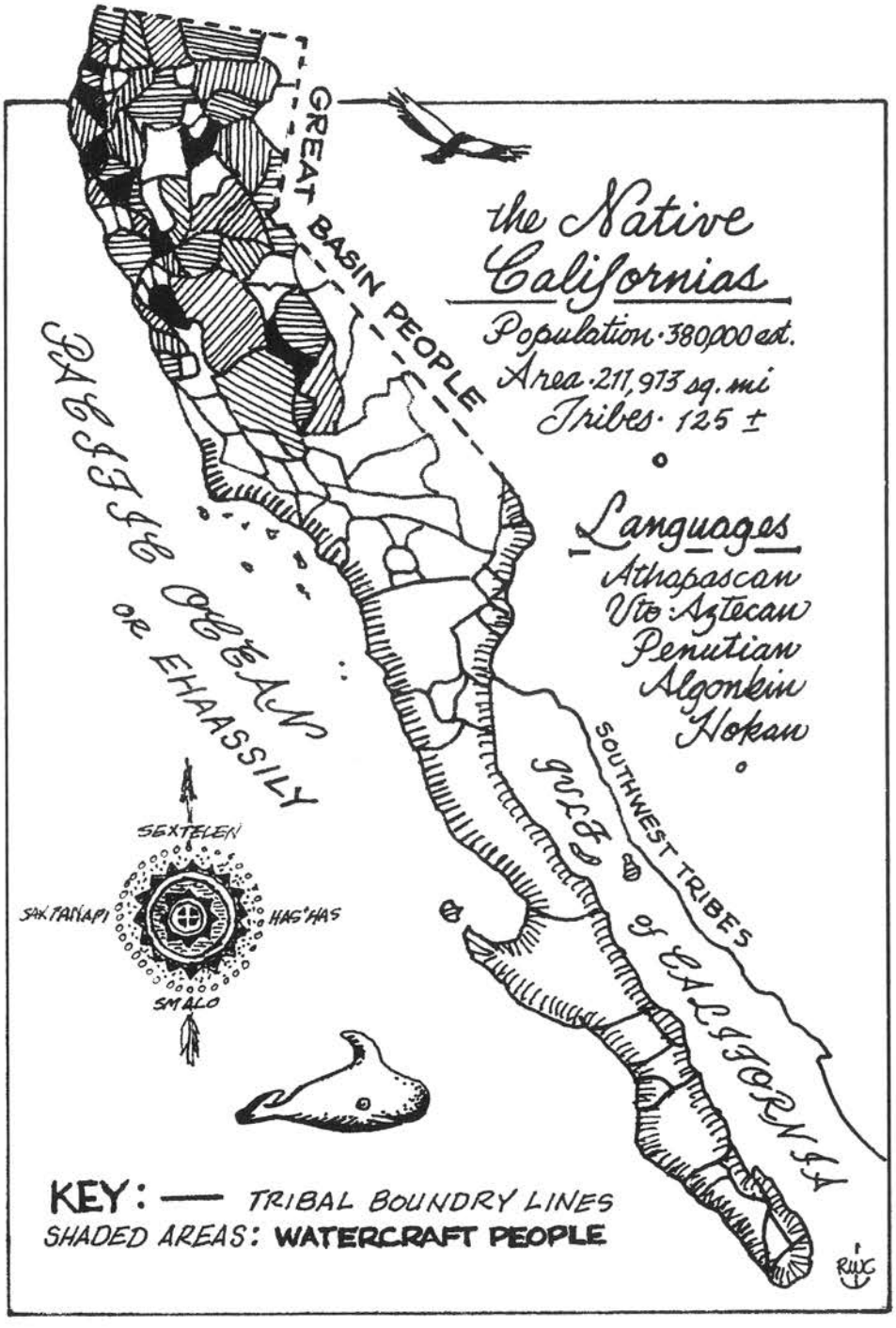
tropical mangrove swamps in the extreme south to coniferous rain forests at the Oregon line. As an offset, thirty-five percent of the whole is desert.

Snow and rain runoff combine to nurture 3993 miles of major rivers fed by 6000 miles of salmon spawning streams that roll down to the sea, while fifty major lakes reflect skies created by the same erratic weather patterns that give the lie to a generally mild climate. Tropical blows from the south central Pacific and Carib-bred hurricanes lash Baja, while storms out of the north central Pacific pound the west coast above 30° N. Tempests produce crazy-quilt patterns of drought, rain and snow. Cabo San Lucas averages ten inches of rain annually, while mid-Baja's San Quintin reports five, and in the great Viscaino desert in between, it is not unusual for two years to pass without a measurable drop. From north of San Quintin the volume of rain increases progressively northward up to the Redwood Coast where eighty inches is the norm. Then, there is snowfall. Snowfall of ninety-six inches in Baja's San Pedro Martir mountains increases by a factor of four or five in the Sierra Nevada to four to five hundred inches, enough each year to keep alive the remnants of ice age glaciers.

East of the north-south line marked by the Sierra Nevada, the lands form a part of the western rim of the bleak Great Basin, while those below the western slopes constitute some of the most productive agricultural acreage in modern North America, the Central Valley.

The physical characteristics of the Californias, the deserts of all degrees of aridity, oak woodlands, great savannahs, marshes, deltas and riparian traces, chapparal foothills, coastal plains, alpine high-lands and extensive, verdant coniferous forests, provide the rationale for population patterns yesterday and today. The combination of climate, weather, terrain and botanical provinces supports a thriving population of insects, reptiles, amphibians, rodents, birds, game and fur animals, and an extensive roster of fresh water fish, shell-fish, saltwater fish and sea mammals, which suggest a further aspect of the natural Californias: the sea.

Along the seacoast, one secondary and two major currents, helped by a sporadic gyre, move intrusive water that acts as a great heat exchanger which, combined with chill upwellings from the offshore deeps, spawns nutrients that support the region's rich marine resource. This natural abundance was a prime factor in population density. The littoral between Eureka and San Diego boasted the highest head count in North America except for the Valley of Mexico. Yet, anthropologists estimate a total of only 380,000 for all of the Indian Californias. Despite the fact this number is about that of the census of Oakland, California, the 380,000 souls were members of 128 tribes, speaking five of the six root languages of Indian North America. This great diversity of


the Native Californias
Population · 380,000 est.
Area · 211,973 sq. mi
Tribes · 125 ±
Languages
Athapascan
Uto-Aztecan
Penutian
Algonkin
Hokan
GREAT BASIN PEOPLE
SOUTHWEST TRIBES
PACIFIC OCEAN
or EHAASSILY
GULF of CALIFORNIA
SEXTELEN
SAK TAKIAPI
HAS'HAS
SMALO
KEY: — TRIBAL BOUNDRY LINES
SHADED AREAS: WATERCRAFT PEOPLE
RWC

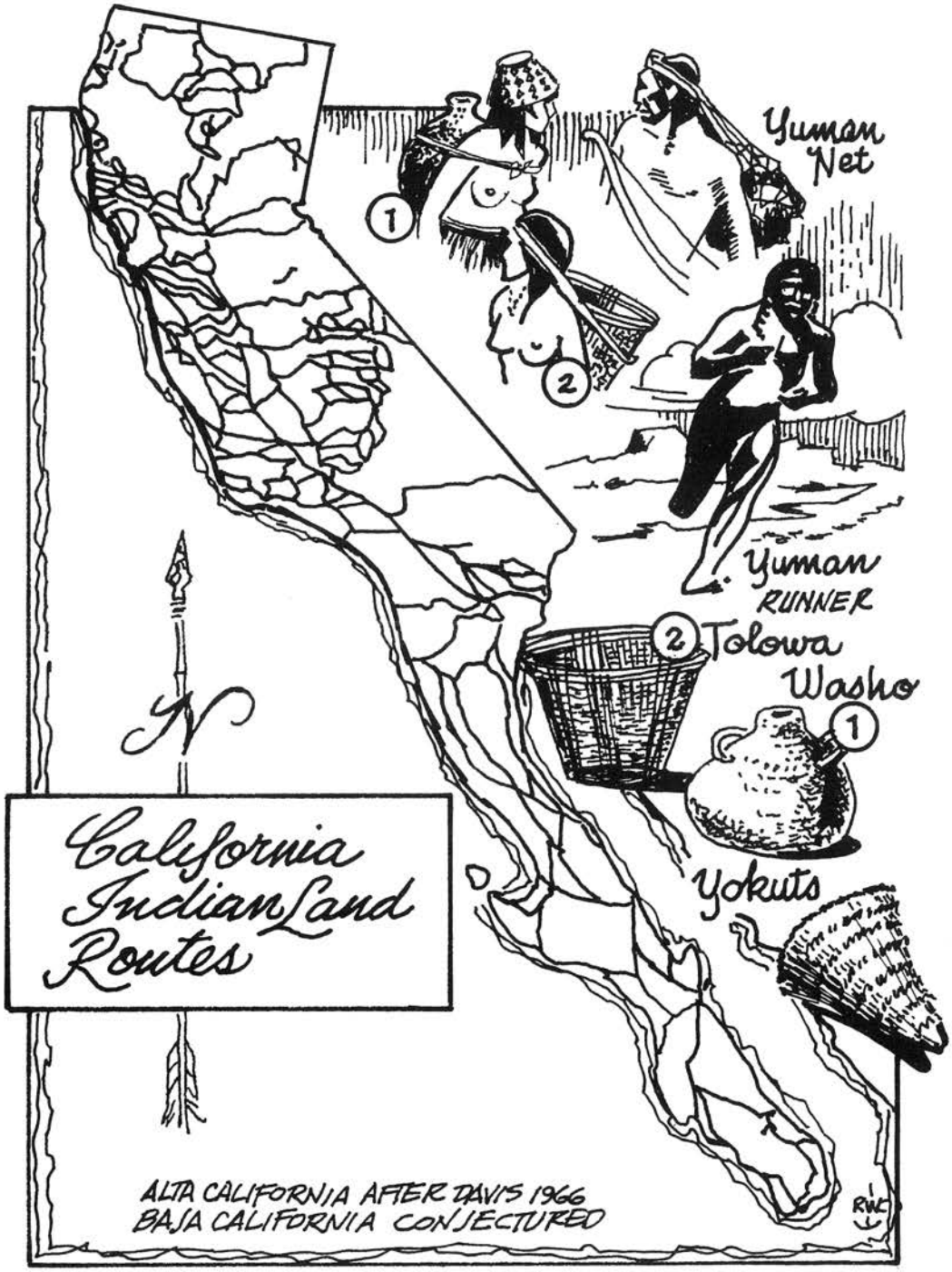
cultures and physical features makes the selection of the Californias particularly rewarding as a prototype or model in the examination of native American transportation and communication.

California's Indians were predominantly basket-making hunter-gatherers. But as with any statement regarding the natives, there were exceptions. Some tribes on the banks of the Colorado practiced a rude form of agriculture and pottery manufacture, while their neighbors to the west and south left additional sporadic traces of the use of ceramics. The cultural and technological levels of Baja's most southerly peoples could probably best be compared to the "Abos" of today's Australian outback. However, tool and manufacturing technology, socio-political and religious practices increased in complexity above modern-day Ensenada until, at the Oregon line, the native Californians approached the highly advanced levels of the Potlatch cultures of the northwest coast.

By virtue of the endless number of isolated enclaves created by the region's topography, tribal affairs and concerns were local matters. There were no great tribal confederations or nations of the likes of the Aztec, Iroquois or Cherokee. These aspects of "Indianness" were frequently synonymous with war and territorial expansion, a way of life that was relatively unpopular in the Californias. The vast region's tough hombres were restricted to the have-not cultures of Baja north to Agua Hedionda Creek (just south of Oceanside) then east across the Borrego Desert following the fringes of the Great Basin along the eastern slope of the Sierra Nevada up into the Modoc Plateau.

These were the people who gave the missionaries and argonauts fits. Theirs were survival cultures, jealous of every drop of water, every pitahaya, every mesquite bean and every pinon pine, struggling to survive in the barren God-forsaken ranges that encourage the propagation of cactus, kangaroo rats, rattlers, lizards and chuckawallas. A great diversity of linguistic and cultural differences (suggested parallel circumstances in European pre-history may be regarded as simplistic) meant that it was not unusual in the Californias, after hiking or paddling twenty miles, to arrive at a village devoid of a single householder capable of speaking the traveller's tongue. Yet the vast region was cross-hatched by a complex system of trade routes whose identical traces we inventive devils have reidentified as hiking trails, roads, freeways and interstate highways.

Surface transportation and communication in any part of the world is a function of geography, dictated by the availability of water, forage, and the shortest low elevation distance between two points. California's natives were no exception. Thousands of words describe the great discoveries of Francisco


Yuman Net
1
2
Yuman RUNNER
2 Tolowa
Washo
1
Yokuts
N
California Indian Land Routes
ALTA CALIFORNIA AFTER DAVIS 1966
BAJA CALIFORNIA CONJECTURED

Garces, James Ohio Pattie, Joseph Reddeford Walker or the likes of the Bidwell Party; all were latter day transients who followed traces opened by animal migration that attracted aboriginal hunters who adopted these logical tracks as the rational natural routes between point "A" and point "B".

Walking or hiking was the principal mode of transport in the Californias. Because the natives were semi-nomadic, their possessions were designed for easy stowage and handling. Most burdens were packed in nets or baskets specifically designed for the trail, and these containers were carried by arranging a sling or tumpline over the forehead or breast. This was the principal technique used in humping possessions, freight or foodstuffs.

To illustrate the effectiveness of this mode, consider the example of a single Tolowa acorn harvest: Based on research developed by R.A. Gould in *Native Californians, a Theoretical Retrospective,* a specific coastal Tolowa village annually gathered acorns from three groves comprising 470 trees. The most remote of the three was fifteen miles distant, and according to his estimate, the gross yield weighed in at 58,750 pounds – almost thirty tons.

By field research, a pound of acorns, sp. *Quericus Agrifolia,* was found to number 226, resulting in a weight of 50.625 pounds per cubic foot. A Tolowa burden basket in the collection of the Southwest Museum works out to a volume of 3.289 cubic feet. This basket would accomodate 166½ pounds of acorns, which in this case suggests 353 baskets of harvested fruit. The best speed humping a load along a northwest coastal rainforest trail was somewhere between 2½ and 3 miles per hour. Assuming an average 10 miles point to point, the harvest calculations result in 353 laden and 353 empty runs, or a distance of 7,060 miles consuming 2,567 hours! In this case, the work was that of the ladies of the tribes and suggests reconsideration of the popular myth regarding native indolence.

Most deliveries were short haul, but there were tribes who specialized in long range trading. The Yumans are a good example. They made regular runs from the Colorado River over to the Southern California coast and it was this garrulous band of entertainers and traders who put the highly prized coastal abalone shell into the west-east pipeline that terminated in the Pueblos of New Mexico. Information passed through these same trade nets and made it possible for Southern California Coastal Indians, using sign language, to advise Juan Rodriguez Cabrillo of the presence of bearded, armored, mounted troopers (Coronado) far to the east.

Important information was carried by *runners* whose feats of speed and endurance boggle the mind. The Chemehuevi, Cahuilla, Hopi, Luiseno, Nomlaki, Mohave, Yana, Yuman and Yurok were notable for their high-

speed messengers in California and the Southwest. Working in Hopi country in 1903, George Wharton James reports paying a runner one dollar on several occasions to carry a message from Oraibi to Keams Canyon. After covering 72 miles, the runner retraced his route, running 144 miles in just 36 hours. These verified citations of point-to-point elapsed time or delivered tonnage would defy duplication today and, in a sense, run a parallel to their water-borne operations.

Fifty-six of California's one hundred and twenty-eight tribes employed over one hundred types of water transport!! Worldwide primitive man employed eight classes of watercraft, and at least one model of each of these occurred in the Californias! This circumstance is unique in primitive water transportation annals.

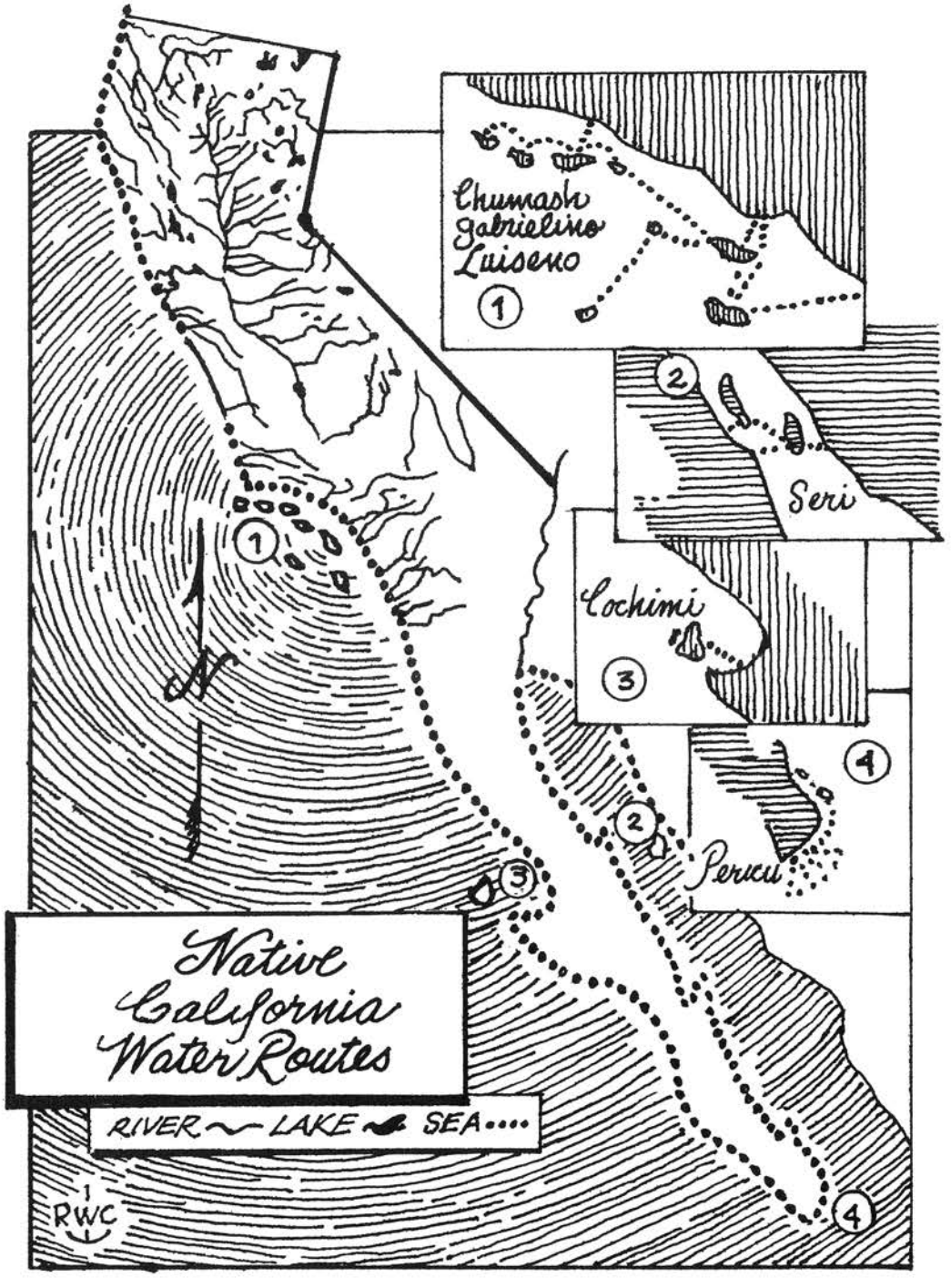
In many regions throughout the Stone Age world it was not unusual for two specific classes of watercraft to be deployed to satisfy specific requirements. And in some cases, three, or even four, but never all eight. This California anomaly was a direct result of the kaleidescopic cultural and environmental mixes of the region.

Primitive watercraft were reflections of their environment, the materials at-hand, the technological levels of their constructors and the requirements of their owners. These conditions, when considered in the light of natural and cultural parameters, suggest as probable rather than possible that all eight classes should occur in the Californias. Within the classes were: seven kinds of floats, twenty-six rafts, seven coracles, one type of sheath canoe, thirty-four kinds of balsa canoes, twenty-one dugout canoes, four stitched plank canoes and one stabilized canoe – one hundred and one varieties in all!! The design and deployment rationale of these one-hundred-plus models includes missions such as: ferrying, fishing, freighting, hauling passengers, hunting, gathering, trading and amphibious attack.

The most popular craft in the Californias was the balsa canoe. Looked upon as a sort of seagoing joke by Euro-Yankee observers, the balsa survives today in Africa, South America and along the fringes of the Persian Gulf. In early times in the Californias they were reported from Cabo San Lucas, up the east and west coasts of Baja, along the Pacific littoral as far north as Bodega Bay, and inland north to the Modoc range on the Oregon border.

Balsas were constructed of three, four, five or seven bundles of tules. They were generally used in estuaries, inshore, on lakes or in protected bays–stillwater environments. Yet the Chumash of the Santa Barbara Channel laid down three and five bundle asphalt coated balsa canoes that they very probably used in inter-island traffic.

Most balsas were double-ended small craft. As built by the Yokuts of the


Chumash
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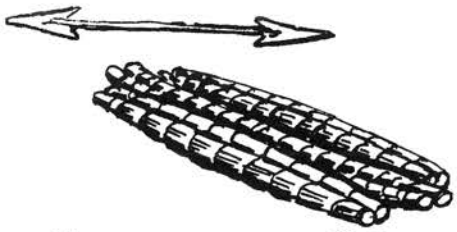
Native
California
Water Routes
RIVER ~ LAKE SEA ....
RWC

Balsa Canoes

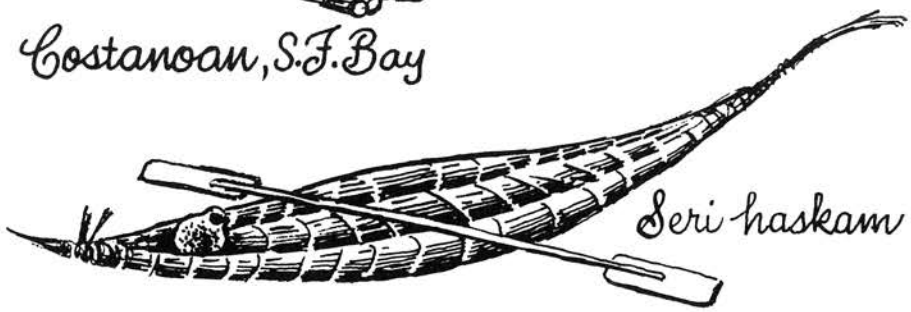
Yokuts ah·ya

Pomo to·xima



Costanoan, S.F. Bay

standard 3 or 5 bundle



Seri haskam

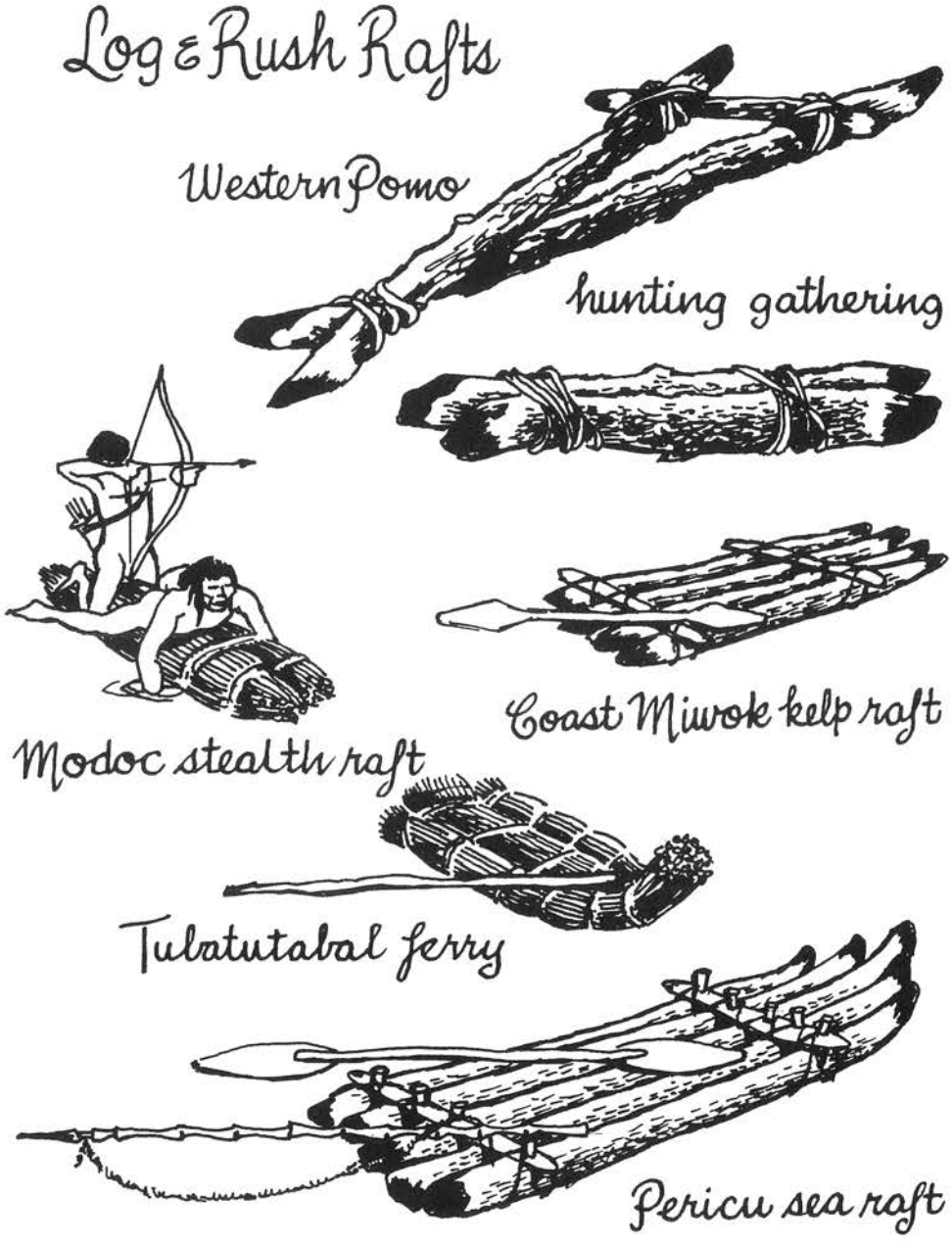
Central Valley, the bows and sterns were identical. These lake and river people launched hunting, fishing and cruising canoes ranging from one-man models up to family size cruisers measuring at least thirty-five feet in length. However, not all were double-enders. The southeast Pomo, above the Napa Valley, produced three specific models of lake craft unique in the design of balsa canoes. The Pomo *to-xina* and its larger sisters were each built as a four-bundle, high-prowed shell sporting a cruiser stern. The four-bundle Costanoan canoe of San Francisco Bay was a blunt-ended model illustrated by the classic Louis Choris lithographic print of 1819, a Bancroft property that appears in most broad California works. And finally, the only balsa canoe constructed of cane, rather than rush stock, holds the region's record for long range deployment at sea. These graceful one and two-man double-ended, three-bundle hulls were launched by the Seri from Isla Tiburon on the Sea of Cortez. They are reported in early accounts hunting sea turtle along the eastern shores of Baja, a sixty-five mile straight-line shot across the then-powerful Gulf of California current.

Rafts, doubtless the predecessors of balsa canoes, were laid down in several forms in the Californias and stand number two on the popularity list. They fall into three categories: log or pole platforms, rush bundle floors, and brush-pile affairs one cut above swimming or drowning.

In the northern reaches where the tule was used in rope, basket and utility mat manufacture, the Modoc, who also produced dugout canoes, constructed two-bundle rush stealth rafts. Propelled in the fashion of a modern paddleboard or swept along by a set pole, these simple rafts were used in hunting waterfowl or sneak attacks, missions admirably suited to a silent approach.

Log models included two, three, four, five, and seven pole assemblies usually used in fishing or freighting. The Northern and Southern Pomo of the lower redwood coast constructed rafts of two or three logs assembled with grapevine lashings, abandoned on the beach after a run to the offshore kerries where their crews gathered mussels or hunted sea mammals. Their range extended to the Russian River area where the Coast Miwok, their southerly neighbors, built four-log platforms employed in gathering kelp.

In all cases but one, any California raft of three poles or more was a platform whose integrity was insured by the use of lateral cross members lashed to the floor poles. The exception was found on the Pericu strands of Cabo San Lucas. Here the natives constructed platforms of three, five or seven *ceiba* logs burned to length in such a fashion as to produce a square stern and tapered bow. The center member was the longest, and each parallel course was shorter. Structural integrity was insured by the insertion of dowels through the cross poles into the floor members! Reinforced by lashings, this


Log & Rush Rafts
Western Pomo
hunting gathering
Coast Miwok kelp raft
Modoc stealth raft
Tulatutabal ferry
Pericu sea raft

resulted in one of the most advanced models of the raft in the Californias. Early-day observers reported the Pericu up to around 9000 yards – over 5 miles – offshore in pursuit of fish close enough to the surface to be taken with a spear or primitive jig.

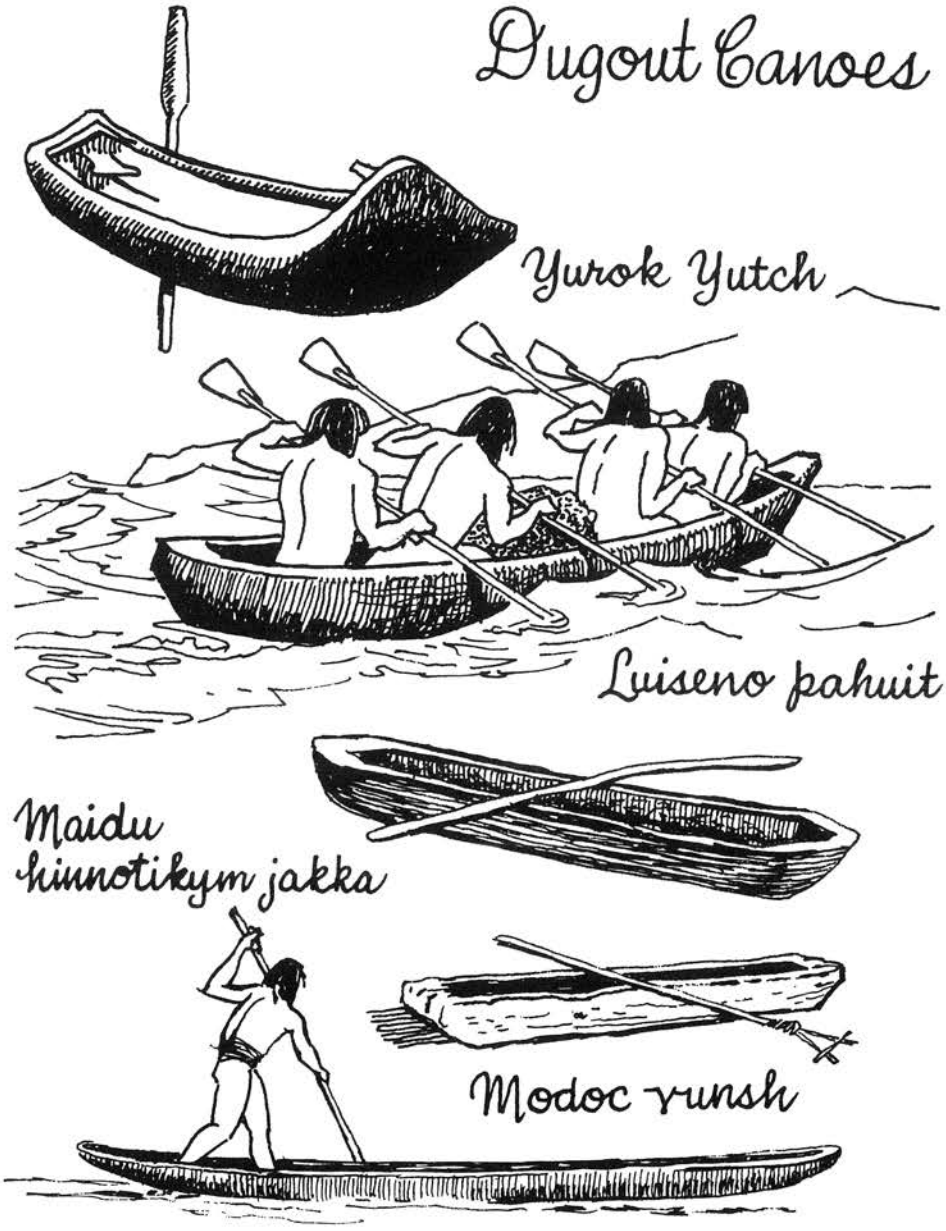
The dugout canoe, one of the more popular of watercraft classes in North America and the entire primitive world, weighs in as number three in the frequency of occurrence in the Californias. Most of these hulls were fairly rude, burned cavity, blunt double-enders deployed in freighting, hunting, gathering or fishing, but there were exceptions.

The Achumawi of the Pit River produced graceful, shallow, spoon ended shells that, even when beached, appeared to be making 20 knots. To the south, in the Oroville range, the Maidu fashioned sharp ended heavy-duty models, and there is conjecture that the Chumash of the Santa Barbara coast and the Luiseno around the mouth of the River San Luis Rey produced dugouts of a similar pattern. The Luiseno hulls were produced in the inland mountain ranges and taken down the coast during the spring floods where they were sold to people on the coast. It is assumed that these coast dwellers stroked out through the combers into the open sea and across the 65-mile channel to San Clemente Island where artifact remains of their paddle blades have been found.

The Atsugewi in northeastern California were content to work from cumbersome, blunt ended hulls as they fished at night by the light of blazing torches. Their neighbors to the north, the Modoc, produced delicate punt types for hunting, fishing and gathering shells. Called Vunsh or Vunshaga by their constructors, these lake craft required full time immersion to insure saturation. If they had been beached after each deployment the Modochulls, whose sides measured an inch or less in thickness, would have split out on drying.

The finest California dugouts were those of the Yurok of the upper redwood coast, canoes of such admirable quality that they were copied or purchased by seven neighboring riverine cultures as far inland as Shasta. Products of fire and abrasion technology, these graceful redwood vessels were employed in hunting, fishing, freighting, ferrying and religious rituals. As an aside, each hull possessed a mystical life connection, with carved representations of a heart, eyes, lungs and kidneys.

The coracle was a river craft used in the new world as well as the old. The name "coracle" is Welsh in origin and includes bowl or scoop shaped vessels constructed of a latticework frame of withes covered by hide; at the confluence of the Tigris and Euphrates rivers, they are great wicker baskets waterproofed by liberal applications of asphaltum. Coracles were not


Dugout Canoes
Yurok Yutch
Luiseno pahuit
Maidu
hinnotikym jakka
Modoc runsh
Achumawi lumjawi

common in worldwide distribution but were popular along the Mississippi drainage where Plains tribes using willow withes, rawhide lashings, and buffalo hide, produced river craft copied and identified by white-eyed trappers as *bullboats.*

In all cases California's coracles were baskets, except for one produced by the early 19th Century sea otter hunter, George C. Yount, which was a shell clad in the hide of a sea lion. Some of the most highly prized examples of primitive basketry find their origins in California, so it comes as no surprise that the natives produced baskets of such fine manufacture as to preclude waterproofing when employed as coracles. Most California coracles are reported in the range of three to four feet in diameter, and all were employed in ferrying operations.

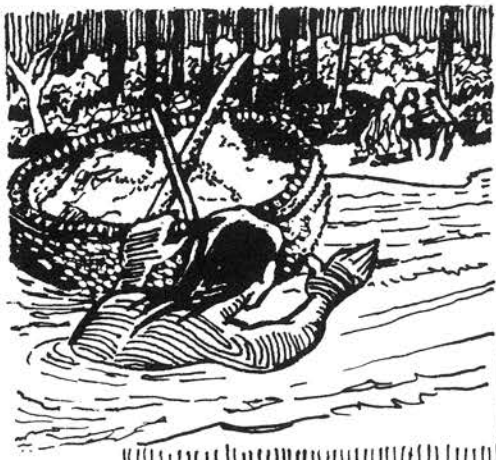
In nearly every historic reference to coracles, the primary citation describes hauling infants, followed by moving freight. The most colorful citation on coracle navigation describes the Yuki solution. The Yuki of northern California lived on the courses of rivers that, in the winter, border on cryogenic. Though life slowed in the northern reaches in the winter months, it did not stop, and river crossings were a part of the regular routine. Faced with ongoing crossings, the inventive Yuki started by building a hell-roaring bonfire on the departure beach. When adequate coals developed they were dropped on a bed of sand in the bottom of the basket. Ready to roll, the Yuki ferryman floated the smoking hull and, in the fashion of a water polo player dribbling a ball, bobbed it over the river to the destination shore where the basket was landed. There firewood was gathered and the coals touched off a second blaze, thus producing a warming station at each end of the run.

Floats were obviously primitive man's earliest device employed to extend his range beyond simply swimming, and included logs of manageable size, a net full of gourds, inflated animals hides, an armload of rushes or brush, pottery bowls and even wicker trays. Floats served one of two purposes; either that of supporting a swimmer, or accommodating freight of a quantity or type that would preclude its movement on the swimmer's back or being lugged underarm.

Northern California's Chimariko made river crossings using large, flat willow trays clasped to the chest in much the fashion of today's youngsters swimming with the aid of inflated pool toys. Over to the east the Plains Miwok picked up a length of log and held it in the same fashion.

Use of pottery bowls or jars in any water transport application is rare, but on the Colorado River pots were popular floats in ferrying operations. Cited as up to three feet in diameter, the bowls were laden with dry stores, manufactured goods or an infant, launched and pushed cross-river by the

Coracles



Yuki Basket

Yount's Bullboat

Floats

Chimariko willow tray

women of the Mohave tribe. Mohave men and their male Yuman neighbors to the south were first class swimmers but left the ferrying operations to each tribes' Ladies Swimming Team.

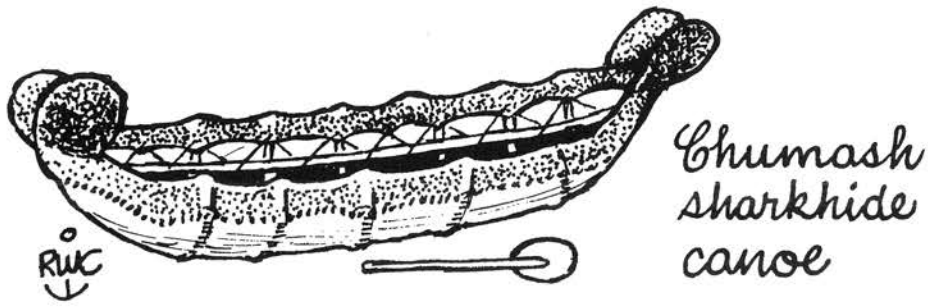
Yuman women frequently moved goods on large flat trays or crude brush pile rafts. An account describing both modes is one of the more delightful reports of native watercraft at work: Fr. Pedro Font tells of arriving on the west bank of the Colorado in 1776 where Anza's homeward bound column made arrangements with the Yumans to raft the troopers and the baggage of the Spanish train to the opposite shore. Some of the Yuman women bent to the task of raft building, while their sisters commenced pushing tray loads of small gear across the river. The first raft swamped, wiping out a full day's work, followed by a second sinking the second day; finally, the third platform constructed the third day was of sufficient buoyancy to complete the task.

Stabilized canoes are those craft whose stability or sea-keeping qualities are insured by the use of twin hulls or outrigged floats. Only two crude models of this class occurred in the Americas, one in mainland Mexico and one in Baja California; the northern model a product of the Cochimi of Cedros Island off southern Baja. Here pine or cedar logs were split in half producing a flat decked, round bottomed solid hull four to five feet in width and twelve to fifteen feet in length. The roll characteristic of these half log hulls was controlled by lashing outboard bundles of poles to each side and they made regular seagoing runs between Cedros island and the mainland.

One twin-hulled stabilized solution is recorded and, although not of native design, served to save the hides of a company of Yankee trappers while adding this exotic model to the California roster. James Ohio Pattie and his faithful companions, engaged in a running Pier 6 brawl with the Yumans, decided that moving south on the Colorado River would be more practical than trying to outrun the natives on the beach. As a testimonial to productivity under pressure, his company hacked out eight dugout hulls in three days. Ready to shove off, the colorful pioneers realized the combined burden capacity was inadequate to accommodate the load so, in the highest tradition of Yankee ingenuity, they doubled up eight hulls side by side in pairs, stowed the cargo on the bridge decks, and poled south out of reach of their landlubbery native assailants.

Of all of the classes of primitive watercraft known to North America, the sheath canoe is without a doubt the most popular in our general literature. Sheath canoes exhibit some of the most advanced examples of naval architecture in the native world, having hulls of ingeniously crafted mortised withe frames meticulously covered with tailored sea mammal hides, or masterfully lofted sheaths of bark stitched to withe gunwhales, to which

Patties double canoe



frames in compression and thwarts were fixed. In the main they are identified as the kayak, an enclosed watertight sheath; the umiak, an open sub-arctic canoe, and the venerable birch bark canoe.

Yankee and Russian sea otter hunters brought the "Cossacks of the Sea" the Aleuts, to the Californias in the first half of the 19th Century. Although their two-man versions of the kayak, called bidarkas by the Russians, were intrusive, they were maintained and constructed in the Californias at Ft. Ross between 1814 and 1841, and ranged to the southerly reaches of Baja.

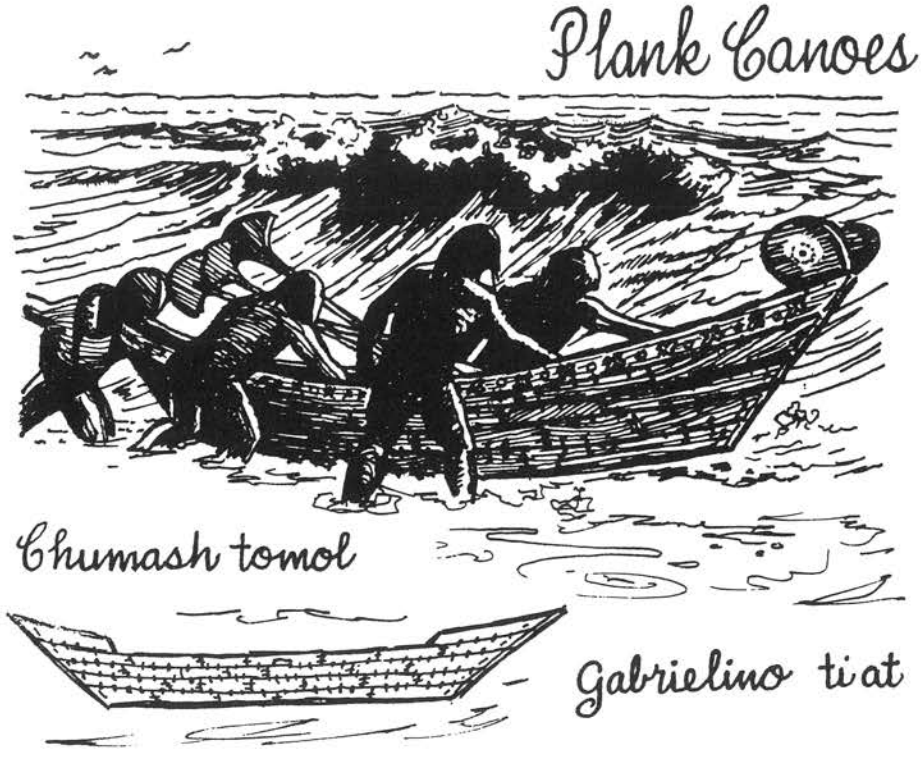
Only one true native sheath hull was laid down in the Californias, a product of the maritime Chumash. It was late in occurrence, and was a classic hermaphrodite watercraft. The Chumash, who made trading and passenger runs to the Channel Islands in the tradition of streetcar schedules, sometime in mid-19th Century picked up on the Aleut skin hulls and, translating the design to their standard stitched plank canoes, produced a sheath hull. These fishing craft reflect a superior grasp of hull design: withe frames and stringers clad to just above the load line with sharkskin stitched to steer hide

uppers. Though the Chumash didn't know it, these were classic duplications of the sub-Arctic *Umiak.*

The most advanced hull design of the New World was the stitched plank canoe. Only two of this class occurred in the Western Hemisphere: in South America, a three-plank *dalca* consisting of a floor and two side planks was used in the Chiloean archipelago of southern Chile. This rude, simplistic hull cannot to be compared with the multi-planked *tomol* produced by the Santa Barbara Channel Chumash and used by the Gabrieleno as far south as San Pedro.

The Chumash, who engaged in a lively trade between the Santa Barbara coast and the Channel Islands, were some of the most ingenious of the New World's canoe constructors. A classic maritime culture, they laid down balsa canoes, dugout canoes, sheath canoes and stitched plank canoes employed in gathering, hunting, fishing and long range trading. Though pine is mentioned as one of the basic hull materials in *tomol* construction, redwood was more popular, and is a prime example of an environmental design anomaly.

Redwood is uncommon south of Pt. Pinos at Monterey, a distance of aproximately 250 land miles to Santa Barbara and 280 miles by sea, posing the question of Chumash raw material acquisition. The answer is the sea and the coastwise California Current. Since the Cretaceous age, coast redwoods towering up to 367 feet above the forest floor have been felled by gales, swamped by river-destined ground torrents and bombarded by atom-bomb-



like lightning bolts. When these magnificent titans bordering the roaring storm-fed rivers fell, their remains were carried down to the coast, out beyond the river-mouth bars, to pitch and roll in the angry seas.

Most, as observed by Stephen Powers in 1877, returned to the redwood coast as driftwood, but thousands of board feet of raw trunk stock was driven offshore to the west until caught up in the southbound California Current, nature's predecessor of latter-day doghole lumber schooners that delivered redwood along the south coast. Considerable of these ponderous billets ran ashore on the strands of the northerly Channel Islands, while some made it as far south as the Catalina Channel where the counter-clockwise Southern California Gyre performed what freighters call an interline service. In the vocabulary of modern transportation, interlining identifies the transfer of a shipment from one carrier to another; in this case, the Southern California Gyre effected a terminal transfer destined for a northerly delivery somewhere between Malibu and Pt. Conception.

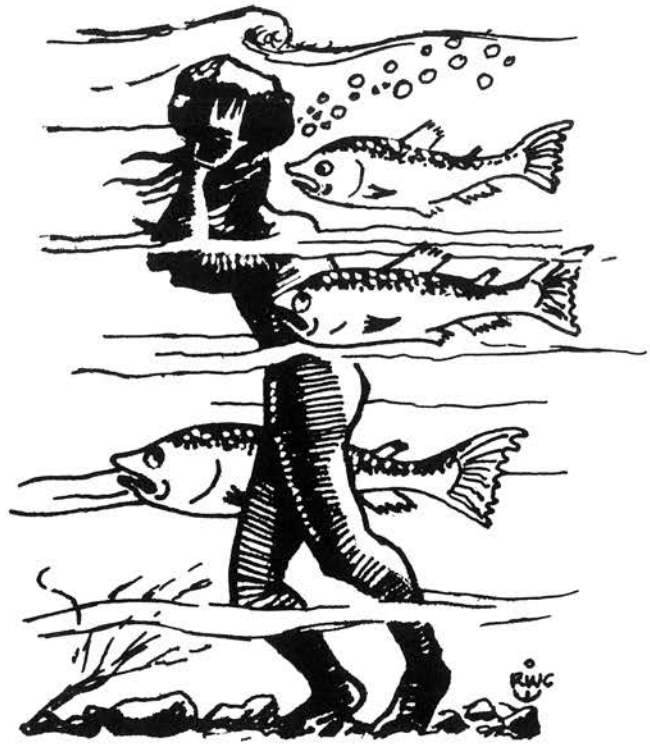
On the beach the raw redwood logs became seasoned driftwood. They were reduced to plank stock by splitting out, and were lofted, trimmed and fitted, employing abrasion technology. Finished planks were joined with an asphalt mastic, strengthened by through hull stitching using milkweed twine, and finally were lavishly embellished with finely worked shell decoration. Explorer George Vancouver, one of the last of the legion of early-day immigrant champions of the *tomol,* was so impressed with these Chumash smallcraft that he carried what turns out to be the only surviving example of the unique, castanet-bladed, compound paddle back to Blighty. It is still listed in the inventory of London's Victoria and Albert Museum.

Actually, this recitation is only a cursory enumeration of the one hundred plus modes of water transport common to the Californias. Although several of the examples can be viewed as unusual, none of the lot fall under the heading of bizarre. However, any report of any aspect of California or the Far West, worth the paper it is written on, must include at least one bizarre citation to keep the east coast-west coast feud smoldering.

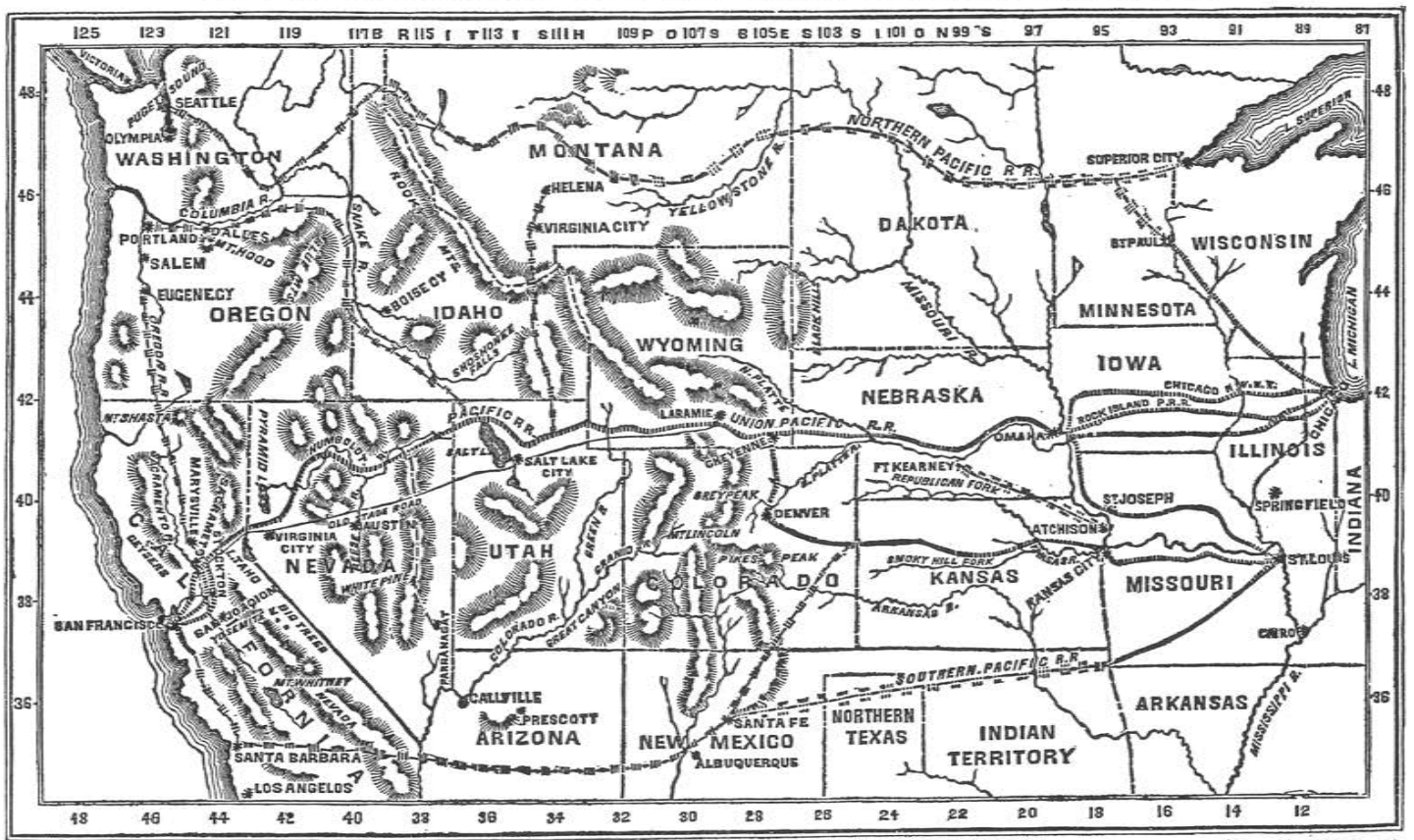
One of the most unusual modes of water transit in the world and one worthy of the Golden State was reported in 1877 by Stephen Powers in his *Tribes of California.* It was in the Nongatl domain of the Eel River where, sans swimming or the use of floats, canoes or rafts, these wily natives crossed their deepest rivers at will. History tells us of Jesus of Nazareth walking on water, an act unparalleled in maritime annals, but if he is number one, the unsung heathen Nongatl rate the number two slot and are as close behind as was Satan when he tempted the Nazarene. The Nongatl were classic infantrymen: they walked win, lose, or draw. Approaching a river they simply waded

in and marched across, a very ordinary solution until reaching submersion depth: it's at this point they approach Guinness and his Record Book. Arriving at a river bank where the obvious estimated depth exceeded the overall height of the traveller, the wayfarer selected a boulder of the magnitude of a great pumpkin, hefted it and grunted it out to chin depth where he took in a great gulp of air, raised the rock to rest on his head, disappeared below the surface and *walked underwater!!* When he broke the surface on the opposite side he discharged the ballast boulder like a "Y" gun firing an "ashcan". Only in California.

In the fashion of the *Denver Post* classic, "Yes, Virginia, California's Indians pecked and painted glyphs, palavered, and were masters of pre-contact use of a form of charades. Furthermore their domain was the only region of the primitive world where the indigenes employed all eight classes of native water transport . . . and when all else failed, they walked under water."



MAP TO ACCOMPANY "OUR NEW WEST" BY SAMUEL BOWLES.



RAIL ROADS ▪▪▪▪▪▪▪▪ UNFINISHED RAIL ROADS —▪—▪—▪— OLD STAGE ROADS ————

(from the 1869 ed.)

The Empty Quarter

by RICHARD F. LOGAN

BY THE YEAR 1840, most of the arable land east of the Mississippi was settled and under the plow. To the west, across that river, agricultural settlement had expanded westward until aridity precluded any further spread of the farming of that day. Continuous settlement halted along a fairly straight north-south frontier, essentially coincident with the 95th meridian through western Minnesota, western Iowa, and about the present Missouri-Kansas and Arkansas-Oklahoma borders.

The area from the Atlantic to this frontier constituted the eastern, major focus of America: solid blocks of agricultural land; industrial developments based upon available resources or in answer to demands for the basic supplies of a growing, increasingly affluent and sophisticated society; and commercial centers dealing in both local and foreign trade. The heart, the core of America.

On the western, Pacific, coast, Spanish settlements had begun a little before the time the United States achieved its independence from Britain. Basically religious, with some military aspects, they were supplied by desultory maritime operations or by agonizing overland journeys up the length of the Baja California peninsula. The European population of California was extremely sparse, with only a handful at each mission, presidio or infrequent pueblo. Little was changed after the secularization of the missions between 1834 and 1840 and the development of the ranchos.

Other trails reached northward from Old Mexico: into Texas, particularly to San Antonio; to El Paso and on up the Rio Grande to Santa Fe, where a small population of Spanish had maintained themselves since 1610; and into southern Arizona, to the missions Tumacacori and San Xavier del Bac, south of Tucson. Each trail was like a tentacle, and there was little connection between them.

The lands between – west of the 95th meridian, east of the California mission-rancho country, and between and north of the Spanish-Mexican tentacles – were vast, unoccupied, undeveloped. It was the Empty Quarter of America. It had a sparse scattering of Indian tribes. For two decades, trappers, traders and government explorers had wandered across it, followed its rivers, discovered its passes, and marked out a few trails into and across it; a miniscule number had taken up residence within it. But to all intents and purposes, and certainly in the minds of outsiders, it was an Empty Quarter.

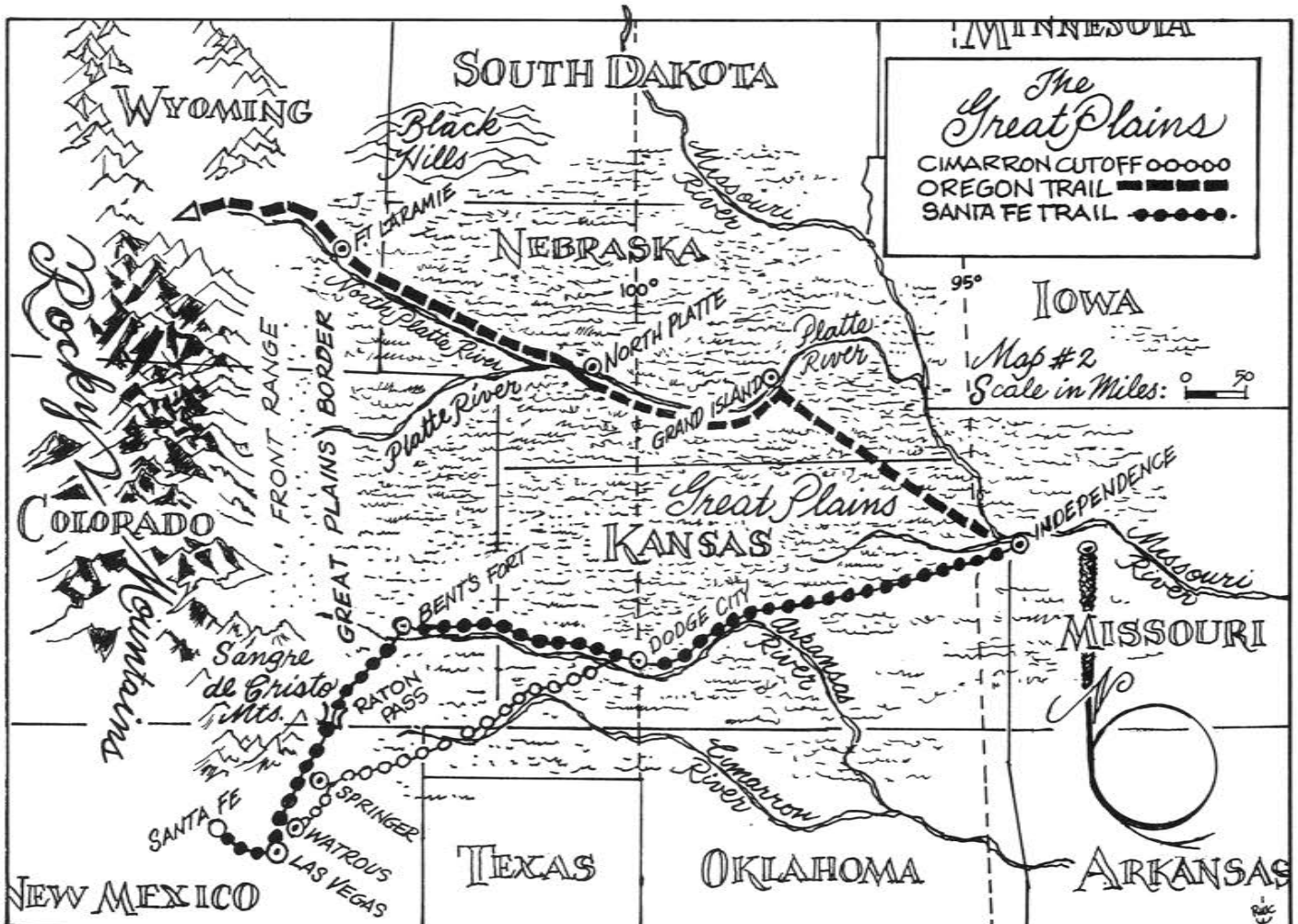
And then suddenly, in the 1840s, the whole scene changed. By then the trails from Missouri to Oregon and California were in use. The discovery of gold in California in 1848 sparked the Gold Rush, and California became the Mecca of great hordes of Argonauts from all parts of the world. In the decades that followed, great numbers of others came for the more prosaic goals of farming, lumbering, or engaging in business. While central California was the major destination, some migrants headed for southern California, Oregon or Washington. The result was that from 1850 onwards, the United States was characterized by a huge, well-developed, densely populated eastern half, and a rapidly growing, magnetically attractive, phenomenally rich westernmost tenth, the two parts separated by a largely uninhabited trace comprising four-tenths of the total area of the nation – The Empty Quarter – a zone which must be traversed to get from one vital area to the other.

The Empty Quarter has six distinct regions:

The Great Plains
The Rocky Mountains
The Columbia Plateaus
The Colorado Plateaus
The Basin and Range Country
The Western Ranges

THE GREAT PLAINS

To a traveler coming from the humid lands of the eastern United States or from western Europe the first region to cross was the Great Plains, a desert, often designated on maps of that period as "The Great American Desert". That the area should later yield huge crops of wheat was beyond their wildest dreams. West of the 100th meridian, rainfall was below 20 inches, trees and



Geography, Richard F. Logan
Cartography, R. W. Cunningham

bushes were absent, and only short grass covered the land. To Eastern eyes, that was a desert.

The land consisted of a vast plain, stretching featureless from horizon to horizon – as far as the eye could see. In some places it was as flat as the sea; in other areas, gently undulating. In a few areas, especially along the southeast sides of certain streams, small sand dunes had accumulated; and in northwestern Nebraska, semi-fixed dunes up to several hundred feet in height covered 20,000 square miles. But they were a rarity, and flatness was the keynote everywhere.

A carpet of grass covered the land, its dense web of interlocking roots binding it together into a tight, solid turf, preventing erosion by wind or water. Here and there, however, colonies of prairie dogs broke the sod, the light soil excavated from their labyrinthine burrows forming low irregular mounds rising slightly but conspicuously above the smoothness of the plain. Elsewhere, too, there were buffalo wallows. In slight depressions amidst undulations, water gathered during thunderstorms on hot summer days. Buffalo – *bison*, to be precise – milled about them, drinking, breaking the sod with their hooves, churning the wet soil into mud, rolling in it to seek relief from the heat and the masses of flies, and then walking away carrying quantities of mud plastered on their hides. This activity, repeated storm after storm, year after year, resulted in the "excavation" of a pit several feet below the general level of the plain.

The Great Plains rise from an altitude of about 1000 feet at their eastern edge along the Missouri River to 5000 or 6000 feet along the foot of the Rockies in Colorado. The slope is so gentle as to be imperceptible: to all general appearances, the country is flat. It is the ideal natural route for wagons, with the sod cover making a fine roadbed, an easy grade, and a general absence of obstacles. Yet the surface of the plain was avoided by the wagoneers for several reasons. Water for humans and beasts alike was unavailable, as was wood for the evening cooking fire. And to a person raised in the humid lands of the eastern United States or western Europe, any treeless land must be a desert, and a desert was to be avoided at all costs.

Across the Great Plains flowed the rivers, in valleys incised only slightly below the general level. Born of the winter snows and summer cloudbursts of the Rockies, they flowed out onto the plains, carrying large amounts of sediment eroded from the mountain valleys. As their velocities decreased on the gently-sloping plains, they became choked with sediment, their channels shoaled and shifting, and bars and islets appeared and disappeared. Hence the streams were all but useless for navigation.

But there was always water, either on the surface or just below it, easily reached by digging. And along the streams grew cottonwoods – poor timber, but fuel nevertheless, and better than nothing for wagon repairs. So the travellers made their way westward along the streams as much as possible, avoiding the open plains.

The natural focus for overland trails was Independence, an eastern suburb of modern Kansas City, Missouri. To it, potential travellers came by river: down the Illinois or the Ohio Rivers to the Mississippi, then up the Missouri to Independence; or overland by many routes. From Independence, the upstream course of the Missouri River leads away to the north-northwest – not towards California or Oregon. So, by pack animal, cart or wagon, with horse, mule or ox, the traveler set out overland to the westward.

From Independence, two trails led westward across the Great Plains: the Santa Fe Trail and the Oregon Trail.

The Santa Fe Trail

The Santa Fe Trail led southwest for 825 miles to the old Spanish capital of New Mexico high (7000 feet) in the upper reaches of the valley of the Rio Grande.

The main route lay at first across the plains, away from the streams, for 250 miles to the Great Bend of the Arkansas River. In this area, so far to the east, the plains were green and fairly moist, and not so fearsome and desert-like as areas encountered further along. It then proceeded up the Arkansas for 300 miles to Bent's Fort near modern La Junta, Colorado. Turning southward at Bent's Fort, it crossed an eastward-trending spur of the Rockies at Raton Pass, and skirted the eastern foot of the Rockies to Las Vegas, New Mexico, 210 miles from La Junta. In the next 65 miles, it rounded the southern end of the Sangre de Cristo Range to Santa Fe.

Later a shorter route was developed, which left the Arkansas River west of Dodge City and crossed the plains for fifty miles to the Cimarron River. After following the Cimarron upstream for a few miles, the trail cut, straight as an arrow, across the plains for 150 miles to the Canadian River near modern Springer, New Mexico. There it turned southward to join the main trail near Watrous. It avoided Raton Pass and other steep grades, and was 90 miles shorter than the main trail, but the dreaded trek across the "Cimarron Desert" discouraged many a traveler from attempting it.

The Oregon Trail

The Oregon Trail, which brought many early settlers and miners to the Far West, cut directly west across the plains for 250 miles from Independence,

Missouri, to Grand Island, Nebraska. It then followed the Platte River and its North Fork some 350 miles across the full width of the Great Plains to Fort Laramie, Wyoming.

THE ROCKY MOUNTAINS

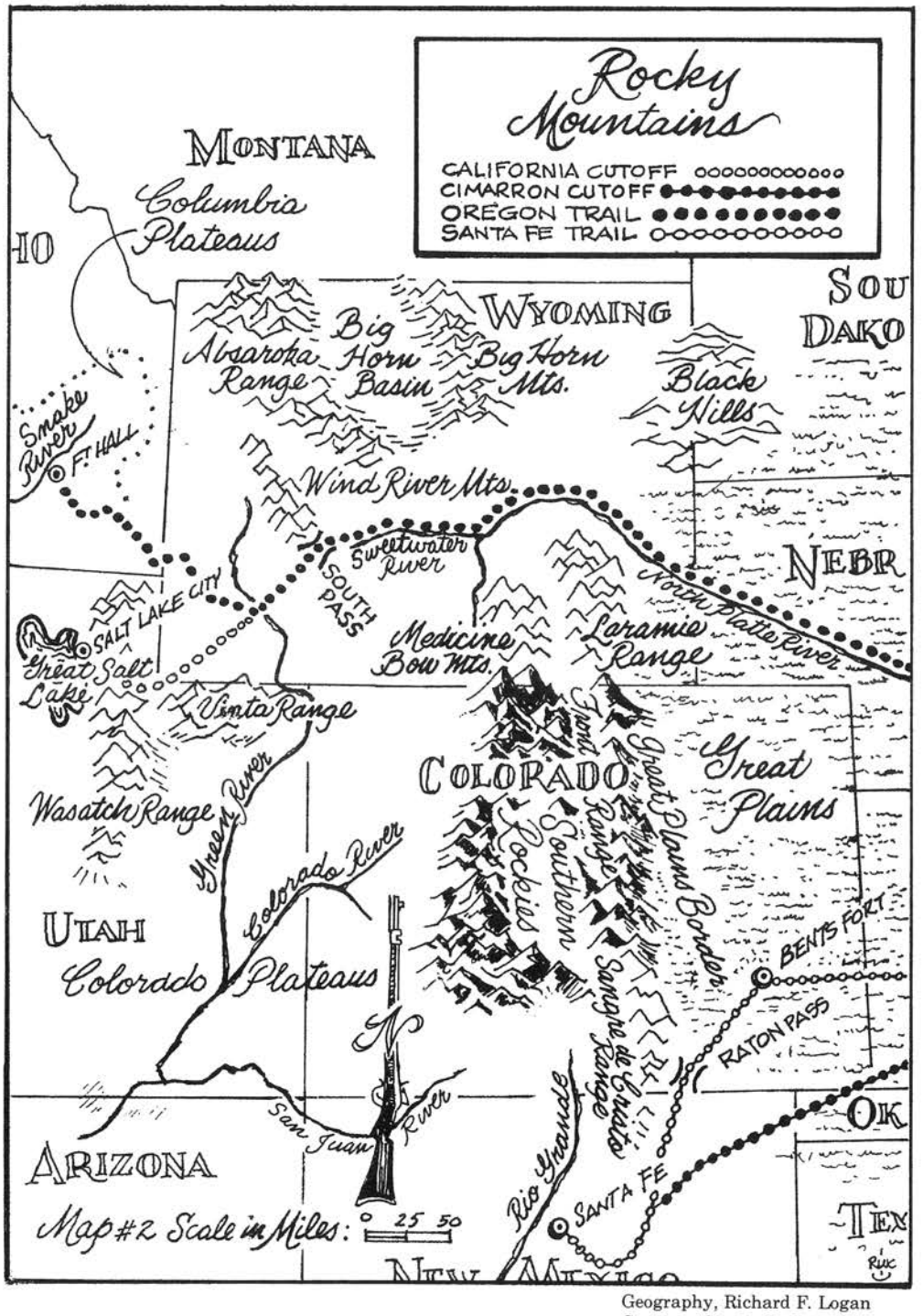
Immediately west of the Great Plains, and athwart the routes from Independence to the California gold fields, stands the long north-south range of the Rockies – precipitous, formidable, awe-inspiring, almost unassailable. Rising from a base altitude of over 5000 feet on all sides, their summits exceed 10,000 feet in hundreds of places and scores of peaks rise above 14,000. They present a great barrier for great distances, thwarting any hope of easy passage. Their peaks are jagged, pointed, steep-sided and soil-less. Their crests are knife-edged and cliffed. Their valleys, while broad-floored in many cases, rise by vertical steps – staircases with the risers measured in hundreds of vertical feet; and they terminate in cirques – glacially eroded amphitheaters with vertical head-and side-walls. Low altitude or gently-graded passes are totally non-existant. Only in recent years have modern engineering and construction techniques permitted the building of easily negotiated roads across them.

In the case of early overland travel to Oregon and California, the massive wall of the Front Range – easternmost range of the Rockies in that latitude – precluded any possible wagon road from east to west across the present state of Colorado. But there had to be an end to the mountains somewhere, so the wagoneers gave up the idea of a frontal assault and went around the ends of the range.

The Santa Fe Trail

On the south, the Santa Fe Trail curved round the end of the Sangre de Cristo Range, the southerly successor of the Front Range and the southernmost extension of the Rockies in that longitude, and came into the upper valley of the south-flowing Rio Grande. There, at Santa Fe, this east-west Anglo-Saxon route shared a common destination with a south-north Hispanic-Mexican route.

This last portion of the Santa Fe Trail was not easy. From Bent's Fort to Santa Fe, the trail lay across the grain of the country, and the topography tends toward angularity – a far cry from the flowing curves of eastern humid landscapes or the smoothness of the Plains. Low cliffs, mesas, boulder-strewn slopes obstructed the path, created detours, and slowed progress. But travel *was* possible, unlike the situation in the mountains being circumvented.



Geography, Richard F. Logan
Cartography, R. W. Cunningham

Geography, Richard F. Logan
Cartography, R. W. Cunningham

The Oregon Trail

The Rockies are an agglomeration of many ranges. The Front Range, as the name implies, is merely the front, or most easterly, of a whole group of ranges which comprise most of the western half of Colorado. Just as the group dies out southward near Santa Fe, the group – under the name of the Medicine Bow Range – terminates northward in south-central Wyoming. A broad gap separates it from the Big Horn Mountains, outliers of the Rockies in north-central Wyoming, and from the Wind River and Absaroka Ranges a little farther west. This gap, 100 miles wide, is a sort of intrusion of the Great Plains far into the Rockies, bringing flat plains far into the heart of the rugged ranges. So subdued is it that the Continental Divide is not only imperceptible, but a very large basin of interior drainage sits right astride the Divide, completely confusing the outsider from the humid world.

The Oregon Trail followed the North Platte River to Fort Laramie (NOT the present city of Laramie), and thence through the gap described above, past Casper and along the Sweetwater River, skirting the northern side of the Great Divide Basin, to South Pass. The crossing of the Continental Divide here was unnoticeable, and the trail continued down long gentle slopes to the Green River, a Colorado River tributary. Ahead now loomed the complex mass of rugged ranges occupying southwestern Wyoming, northeastern Utah, and southeastern Idaho, culminating in the extremely rugged Wasatch Range, overlooking the Great Salt Lake. Several routes threaded their ways through this maze, some making for Salt Lake City, some for Fort Hall on the Snake River near modern Pocatello, Idaho. From Fort Laramie to Fort Hall was about 600 miles.

THE COLUMBIA PLATEAUS

The Columbia Plateaus occupy most of southern Idaho, eastern Oregon, and eastern Washington. They constitute one of the most extensive lava plateaus in the world. The lava surfaced almost entirely from fissures – cracks in the ground – through which it flowed quietly and widely over the surrounding countryside. In a few areas, it came to the surface explosively, building cinder cones of pellets of lava which had been shot into the air.

In most places, the land is gently rolling and would seem to be ideal for wagon travel. Closer examination, however, reveals three formidable problems:

1) The surface of newer lava flows is frequently jagged and craggy, with foot-high pinnacles and teeth of glassy lava waiting to cut the feet and legs of man and beast; angular blocks turned on edge, bordered by cracks many feet in width, and of immeasurable depth, deter the passage of wagons.

2) Great expanses of country are almost waterless – all rain disappearing instantly down the myriads of cracks formed as the lava cooled.
3) Deep, sheer-walled canyons cut by larger streams sometimes lie athwart the desired routes of travel, or restrict the traveler to the actual stream itself.

The Oregon Trail

West of Fort Hall, the Oregon Trail followed the broad gentle valley of the Snake River to a point about midway between American Falls and Burley, Idaho. There, groups headed for California turned southwestward into Nevada on the *California Cutoff,* and left the Columbia Plateaus.

Beyond the Cutoff, the main trail followed the Snake River, keeping to its south bank, or turning away from it at places where the river had cut a canyon too deep and steep-walled for the wagons to negotiate. Eventually, the canyon became too deep and narrow to even consider, and the trail abandoned the river completely – at first on the south side, and later, after crossing the stream at Glenn's Ferry, on the northern side. Across the surface of the lava plateau, travelers sought out the smoothest stretches, avoiding areas of more jagged lava. Handicapped by scanty water and sparse vegetation, suffering from intense heat in summer and the cold and the screaming wind of winter, they headed for the pleasant woodsy oasis of Boise, 250 miles from Fort Hall.

Fifty miles to the west, the trail crossed the Snake again near its junction with the Boise River. It would have been tempting to follow the Snake downstream to the north, but the word had spread concerning its passage through the wildly spectacular but impassable Hell's Canyon, along the present boundary between Idaho and Oregon.

So the trail left the Snake River and climbed into the Blue Mountains – a great mountain mass that rises like an island above the sea of lava plateaus at its feet. In general, it has the form of a gentle-sloped dome, above which rise several ranges of somewhat steeper and more rugged mountains. By carefully selecting a route between the ranges, the Oregon trail crossed the Blue Mountains, taking advantage of the cooler climate and the greater availability of water, feed and wood.

Through the tortured wastelands of the Burnt River Canyon, it climbed the southern side of the mountains and, with considerable effort, reached the summit between the Wallowa Mountains and Elkhorn Ridge, southeast of present-day Baker, Oregon. Beyond, essentially on the top of the dome, the trail crossed the table-flat floor of the Grande Ronde Valley, past modern La Grande, and on over the rounded wooded northwestern crests of the Blue Mountains – a pleasant relief after the hundreds of miles of desolation that had been traversed.

A long gentle down-slope led eventually to the vicinity of today's Pendleton, Oregon, about 190 miles from the crossing of the Snake River west of Boise.

Beyond lay the valley of the Columbia River – but rather than follow the stream itself, with problems of soft ground, cliffed banks, etc., the trail paralleled the river a few miles to the south for some 150 miles to The Dalles, where the stream enters its confined valley – a gorge in places – through the Cascade Range.

THE COLORADO PLATEAUS

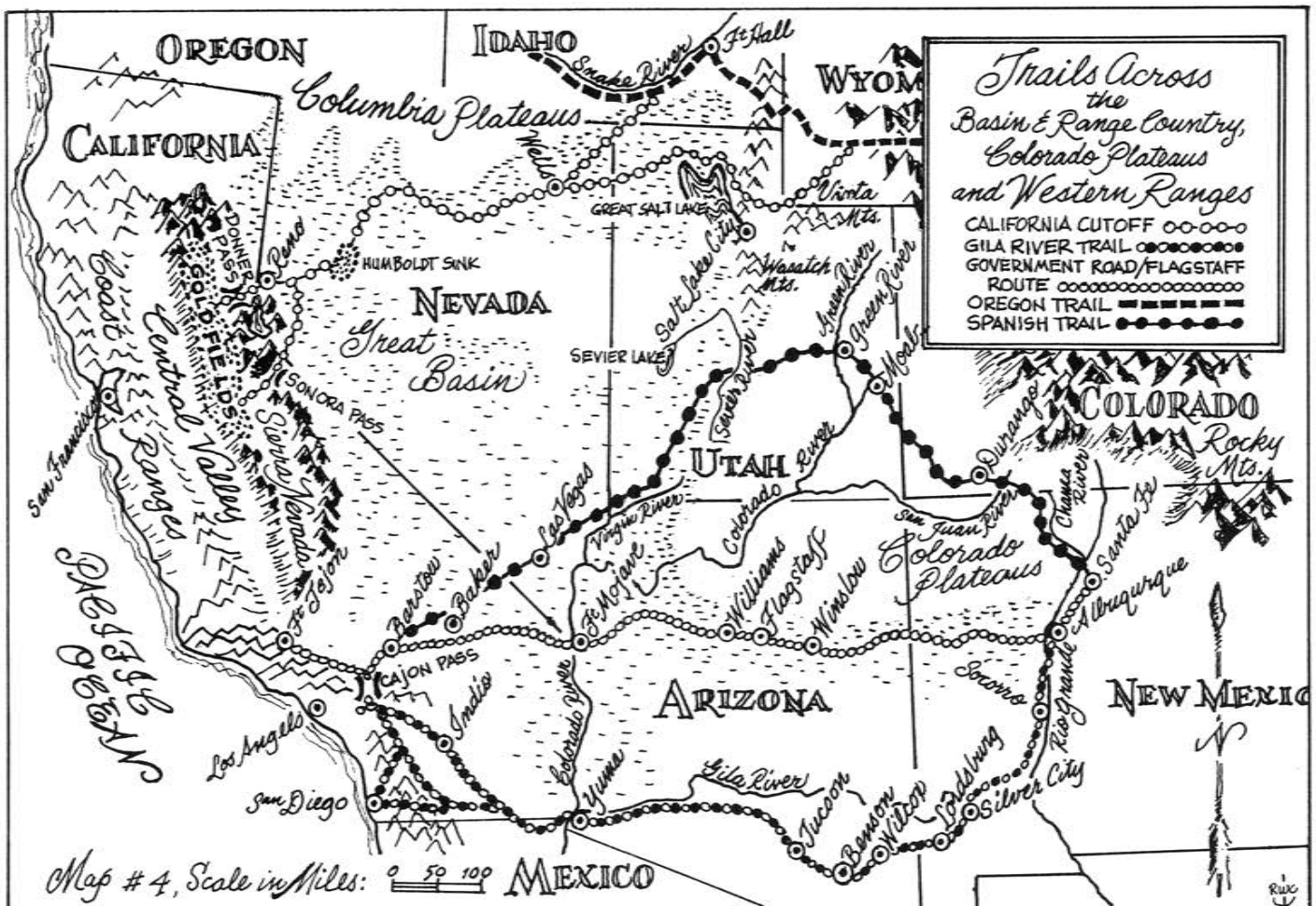
The Colorado Plateaus occupy a huge section of southeastern Utah, southwestern Colorado, northwestern New Mexico, and northeastern Arizona. They are lands of sweeping vistas and limitless horizons; deep, cliff-walled canyons; brilliantly colored rocks and brick-red and yellow-gray streams; angular topography, thin soils, torrential rains and prolonged drought. Vegetation ranges from non-existent in many lower areas to woodlands and forests on the higher plateaus. Punctuating the smooth, even skylines are scattered volcanic cones, some of gigantic proportions reaching to altitudes where snow lies most of the year and dense evergreen forests clothe the slopes.

Travel is fairly easy on the plateau surfaces, but detours of great distances may be necessary to by-pass some of the stupendous canyons. Water is always a problem, aggravated by the dry air and the great heat of summer. Feed for livestock is in short supply in most areas.

The Spanish Trail

The Spanish Trail began at Santa Fe, headed northwest, crossed the Rio Grande and followed the Chama River upstream, paralleling the boundary between the Colorado Plateaus and the southwestern spurs of the Rockies (the San Juan Mountains). Crossing the many headwaters of the San Juan River just as they emerged from the mountains, it avoided their canyons entrenched deeply into the plateaus. From the site of modern Durango, Colorado, it struck out across the plateaus. It crossed the Colorado River at Moab, Utah, and the Green River at today's town of that name – in each case, at points where the stream is, for a short distance, not deep in a vertical-walled canyon. Beyond the Green River, the trail traversed Castle Valley under the Book Cliffs, climbed out westward to cross the Wasatch Plateau, and descended into the valley of the Sevier River – and left the plateau country.

It was some 600 miles from Santa Fe to the Sevier. Two-thirds of the distance was across extremely barren desert – yet most of the way water was



Geography, Richard F. Logan
Cartography, R. W. Cunningham

available at relatively frequent intervals. It is a land of great cliffs and canyons, of vast expanses of impassable terrain – yet it was so well selected a route that difficult grades were rare. The route was most circuitous, greatly increasing the straight-line distance. This was done, of course, to avoid the exceptional ruggedness, sheer cliffs, extraordinary canyons and vast barren and waterless plateaus. While it was of some importance as a transcontinental link in early times, it would be unthought-of as a prospective route across the country today.

The Flagstaff Route

One other trail penetrated the Colorado Plateaus and was, in a sense, the fore-runner of the Santa Fe Railroad and Route 66, now I-40. It stayed atop the plateaus in a singularly undissected belt from Albuquerque westward past Winslow and Flagstaff to Williams. Its high altitude made it pleasantly cool in summer but subjected it to heavy snows in winter, and its eastern part traversed an area of complete desert. In the western section, beyond Williams, it made a long gradual descent to the Colorado River, in the Basin and Range region.

Combined with the Cimarron Cut-off of the Santa Fe Trail, this was the shortest route to Los Angeles (about 1635 miles) and to the gold fields (1800 miles). Curiously, it was very little used until the coming of the railroad.

THE BASIN AND RANGE COUNTRY

Bounded on the north by the Columbia Plateaus in the vicinity of the southern boundaries of Idaho and Oregon, on the west by the Sierra Nevada and other bordering ranges, and on the east by the Colorado Plateaus and the Wasatch Range, the Basin and Range Country extends southward into Mexico: into Baja California, Sonora, and Chihuahua. It includes the entire state of Nevada, western Utah, the southwest half of Arizona, the desert portion of eastern California and the southwestern part of New Mexico.

Climatically, all of the region is arid or semi-arid. Water is everywhere in short supply, whether as water for stock, for human use, or for vegetation growth. In addition, summers are invariably extremely hot, and in the northern areas, winters can be very cold.

The land is characterized by elongated ranges oriented north-south, with extremely steep slopes, and rugged, narrowcrested ridges and peaks. Every range is part of an uplifted fault block – a section of the earth's crust which has been broken apart from the rest and thrust up high above its surroundings. In the reverse manner, adjacent blocks have been dropped down, making large depressed basins which are far below the level of the surrounding country. Such fault blocks are commonly ten to twenty miles long, five to fifteen miles

wide, and raised or lowered five to fifteen thousand feet. Thus the gross pattern of the country, viewed generally, is the result of faulting.

On the other hand, the details of the local scene are chiefly the result of erosion and deposition by running water. The minor valleys cut into the mountain sides, invariably narrowbottomed, steep-sided, and with steep gradients, have been eroded by flash floods associated with summer cloudbursts.

The materials eroded from the mountains are deposited in the adjacent basins as the streams slacken in velocity, dry up through evaporation, and sink into previously deposited materials. Thus the basins come to be filled with gravels, sands and silts, their surfaces sloping very gently from mountain foot and canyon mouth down toward the center of the basin, where they meet similar slopes constructed from the mountain on the other side of the basin.

Some basins have exits for their surplus water and debris to adjacent valleys or to the sea. But many are closed basins, with no outlets, with drainage terminating at the lowest point in the basin. There, after rains, a shallow lake may form, and eventually evaporate in the dry desert air. Most of the time, however, that same area is covered with a thick crust of salt, glistening white in the sunshine. The salt has been dissolved from the rocks and soil of the surrounding countryside by the rains, carried by streams to the basin, or has percolated there through the sands and gravels. When the water evaporates, the salt is left behind, coating the surface, creating a *dry lake* or *playa.*

Potable water is almost non-existent most of the year. Such springs as do exist are usually located in the bottoms of rugged mountain canyons, and were unknown and inaccessible to wagon trains. The great exceptions are the several exotic streams (the Colorado, Humboldt, Virgin, Mojave and Gila Rivers) which originate in high mountains with greater precipitation and flow across the desert basins, either on the surface or at very shallow depths beneath the stream bed.

Vegetation in the basins consists of a sparse growth of desert shrubs and in some places, bunch grass. Stunted trees grow along the major waterways, even where they are normally dry on the surface. Feed for livestock is in short supply. The higher mountains sometimes rise into cooler, more moist zones where open woodlands of juniper, pinon and oak occur – but these were generally out of reach of the pioneer emigrant or trader.

Four major trails traversed the Basin and Range Country: the Gila River Trail, the Government Road, the Spanish Trail, and the California Trail, or California Cut-Off.

The Gila River Trail

The Gila River Trail, actually the western extension of the Santa Fe Trail, followed the Rio Grande southward from Santa Fe past Bernalillo, Albuquerque, and Socorro. Veering to the southwest, it pursued an old miner's trail dating from Spanish times to Silver City, New Mexico, and thence to the upper valleys of the Gila River. The route was easy, the passes low, the grazing fairly good, and the Continental Divide was crossed without being recognized.

Beyond lay a land of extreme desert conditions, but there was the Gila Valley to follow across the full width of southern Arizona, with water available for a little digging in even the worst of droughts. Feed was scanty, but fuel was plentiful. Later travelers held farther south, past the sites of modern Lordsburg, Wilcox, Benson, and Tucson, joining the Gila much farther west. This more southerly route passed from basin to basin, crossing ranges where they sank to the level of the plain.

LENGTHS OF OVERLAND TRAILS
from Independence, Missouri

OREGON TRAIL	
to Independence, Oregon	1950 miles
to California Goldfields via California Trail (California Cut-off)	1875 miles
SPANISH TRAIL and regular Santa Fe Trail	
to Los Angeles	2100 miles
to California Goldfields	2375 miles
FLAGSTAFF ROUTE, Cimarron Cut-off, and Government Road	
to Los Angeles	1650 miles
to California Goldfields	1850 miles
GILA RIVER TRAIL, Cimarron Cut-off	
to San Diego	1660 miles
to Los Angeles	1750 miles
to California Goldfields	2050 miles

As will be seen from the above table the Gila River Trail, in combination with the Cimarron Cut-off of the Santa Fe Trail, was one of the shortest routes to the Pacific Coast. At the same time, it was one of the easiest as far as grades were concerned. But it was never a popular emigration route, probably for three reasons. The destination of most pre-railroad migrants was not just the Pacific Coast – most were headed for the gold fields or the towns and agricultural lands of northern and central California – the popularity of

southern California came later. Secondly, the Cimarron-Gila route had an inordinate amount of desert mileage with a bad reputation, and while it was almost ideal for winter travel, its good points were not as well known as its bad. And finally, the reputation of the Apaches as fierce attackers of wagon trains caused many prospective migrants to select other routes.

The Government Road

Another route, used to a fair extent by the Army, crossed Arizona diagonally from southeast to west center, serving a series of Army posts. It had easy grades, staying almost entirely in the basins and avoiding mountains rather than crossing them. But it exposed its travelers to great summer heat, long waterless stretches, great shortages of feed, and the threat of Apache attack.

At Fort Mojave, on the Colorado River above Needles, it joined the Flagstaff Route which had just descended from the Colorado Plateaus. West of the river, the combined routes were known as "The Government Road" because, in the 1850s, the route was marked (no *road* was built) and a string of forts was established to defend it. The "Road" went westward through desolate and empty country lying between modern routes I-15 and I-40, utilizing small waterholes and wells, across some of the harshest parts of the Mojave Desert. Eventually it reached the sink of the Mojave River, south of present-day Baker, and followed that largely subterranean watercourse upstream to present-day Barstow and Victorville. From there it continued either through Cajon Pass to Los Angeles, or along the north foot of the San Gabriel Mountains until it joined the trail from Los Angeles to San Francisco and the gold fields near Fort Tejon.

The Spanish Trail

The Spanish Trail entered the Basin and Range Country at the same time it entered the Sevier River Valley in central Utah, and it traversed that country for the next six hundred miles – to Cajon Pass overlooking southern California. Its route roughly paralleled that of today's I-15. In the north, it ran along the foot of the western escarpment of the Colorado Plateau where, at fairly frequent intervals, streams emerged from canyons in the face of the Plateau, flowed across the trail and off into the arid basins to the west. This was high desert country, with grass and palatable bushes for browsing, with only moderately warm summers but bitterly cold winters and considerable snow.

In southernmost Utah, the trail descended into Dixie, the valley of the Virgin River: an inferno in summer, but with a pleasantly mild winter; a land of extreme desert, but blessed by an ever-flowing river– a delightful oasis in a spectacular desert.

Unfortunately, downstream the narrowness of the canyon and the quicksands of the river bed forced the trail out onto high ground, over rocky passes and across dry benchlands for long distances before it reached the next oasis – Las Vegas ("The Meadows").

Beyond, the trail headed southwest across the heart of the Mojave Desert, from one wretched waterhole to the next, staying in the basins where the grades were gentle and the surface good, in an almost direct line, swerving only to avoid occasional mountains. Through most of this section, it ran parallel to I-15, but a dozen or a score of miles to the northwest of it. From the vicinity of Barstow, it followed the course of the Mojave River to Cajon Pass.

The California Trail

The fourth route across the Basin and Range Country, the California Trail, split from the Oregon Trail about the site of present-day Burley, Idaho, on the Snake River. It headed south, leaving the Columbia Plateaus, and crossed the moderately low divide between the Snake and Humboldt Rivers, and joined the latter near Wells, Nevada. Later, many travelers came via Salt Lake City, whence they went westward across the glistening, glaring, but smooth surface of the Great Salt Desert to join the other route at Wells. Both routes were infamous for their lack of potable water and extreme desert conditions.

The combined trails continued westward for 270 miles down the valley of the Humboldt River to its final termination in the salty wastes of Humboldt Sink. Forty waterless miles ensued – the infamous Forty Mile Desert. Eventually the trail reached the downstream termination of the Truckee River, which it followed upstream past the present site of Reno, Nevada.

THE WESTERN RANGES

Along the western border of America's Empty Quarter stands a high but discontinuous wall of rugged mountains. The Cascade Range constitutes the northern portion of this barrier, stretching across northernmost California and the full width of Oregon and Washington. The range consists basically of a rather moderately sloping base above which isolated volcanic peaks rise spectacularly. By careful selection of routes, wagon trains could fairly easily cross the range at many points.

Unlike any other stream, the Columbia River, draining a vast area to the east and northeast, flows directly across the Cascade Range from The Dalles to Portland, Oregon. It is an *antecedent* stream – that is, it was flowing in that course before the Cascade Range existed. As the mountains were formed by the slow folding and rising of the Earth's crust, erosion by the stream kept

pace with the uplift, and the gorge in which it now flows was gradually cut. The Columbia River Gorge is about sixty miles in length, and in many places has very steep, precipitous walls.

The Oregon Trail

Originally, the Oregon Trail ended at The Dalles, at the eastern entrance to the gorge. There the emigrants built rafts and floated downstream – a very dangerous undertaking. In 1848, the Barlow Road was completed, allowing travelers to continue by wagon to their final destination. The road left the vicinity of the river at The Dalles, turning southwest. It curved round the south side of the spectacular volcano, Mt. Hood, utilizing Barlow Pass and the notorious Laurel Hill, considered by many to be the most hazardous part of the entire journey.

Beyond, the route traversed rolling country to its termination at the town of Independence, Oregon (appropriately named: remember that the trail started at Independence, Missouri) just southwest of Salem, in the Willamette Valley. The distance from The Dalles to Independence is approximately 100 miles.

The California Trail

To the southward of the Cascade Range, running down more than half of the length of California, lies the Sierra Nevada. Like the Front Range of the Colorado Rockies, the Sierra Nevada stands directly athwart the straight-line course from Independence, Missouri, to the California gold fields. Like the Front Range, too, it was possible to make an end-run around the obstacle. But unlike the Front Range, it was also possible to make a direct attack upon the center and fight one's way, albeit with great effort, across the barrier.

The Sierra Nevada is a great fault block – a section of the Earth's crust which has broken and tilted as a single huge unit. It has risen along a fault line on the east, forming a fault scarp overlooking Owens Valley, Mono Lake, and other lower lands to the east, at a height of two or three miles above the former continuous surface.

The range has a very asymmetrical cross-section: a steep, abrupt, precipitous eastern face, and a long slope down to the west. It was the eastern face, the fault scarp, that presented the real problem to the traveler. Even today, it stands as a major obstacle to surface travel, and in the days of covered wagons pulled by horses and oxen, it must have seemed absolutely insurmountable.

Yet the early travelers did make a direct assault upon that barrier. In the area from Mammoth south to Walker Pass, the front of the range is a continuous wall and defied even the most intrepid traveler. But north of Mam-

moth, the wall is broken by simple offsets in the fault scarp; individual fault blocks, each quite separate from its neighbors, break up the face of the main Sierran block. It is possible in some places to thread one's way through between the blocks – each a respectable range in its own right – and attain the summit with somewhat greater ease.

The California Trail

The California Trail utilized two such routes. The earlier was by way of the Walker River and the 9,624 foot Sonora Pass. In 1844, the much lower Donner Pass at the head of the Truckee River was discovered and the traffic shifted permanently to it. West of modern Reno, the trail passed around the north end of the Carson Range, a major fault block, and turned south across the surface of a lower block west of the Carson Range. At Truckee, it turned west into the deep Donner Lake valley, carved during the Ice Age by a massive glacier which had descended from an ice cap atop the Sierra Nevada to the west. It was thus possible, step by step, to move wagons up to the 6000 foot level of Donner Lake. There remained a rise of only some 1200 feet for the real assault upon the range (the summit of the pass is at 7239 feet) – a minor rise compared to that demanded in other passes.

The western slope of the Sierra Nevada consists of a broad, rolling surface sloping down gently to the westward. Trenching it, in long parallel courses down it, are deep valleys cut by swift-flowing streams and later gouged into broad-floored, vertically-walled chasms by the erosion of glaciers that filled their up-stream portions during the Ice Age. Avoiding them, the trail, like modern I-80, stayed on the upland, descending gradually to the gold fields and eventually to the Sacramento Valley.

As shown by the horror of the Donner Party, this was a summer-only route: winter snows might lie late into the spring and even early summer; and snow sometimes comes early in the autumn, catching the tardy traveler unaware.

The Spanish Trail - Government Road

The combined Spanish Trail and Government Road crossed from the Basin and Range Country into southern California via Cajon Pass. There the San Gabriel and San Bernardino Mountains, originally a single range, have been split asunder and slipped apart by lateral movement – still in progress, incidentally – along the San Andreas Fault, opening the Pass between them.

Through it, the route descended rather easily to San Bernardino, in an innermost basin of the coastal southern California lowlands, and thence to San Gabriel Mission and Los Angeles.

The Gila River Trail

After crossing the Colorado River at Yuma, the Gila River Trail split into three parts, depending in part upon the destination of the traveler.

The hardest but shortest route to the Pacific was directly west to San Diego. Its first segment lay across the southern part of the Imperial Valley. It was a flat stretch, but cursed by searing heat all summer, a complete absence of water and a total lack of feed, and a belt of deep, shifting sand – the Algodones Dunes. The latter could be avoided by a detour of a score of miles into Mexico.

Beyond this seventy-mile stretch of extreme desert plains rose an abrupt mountain wall – the eastern face of the Peninsular Ranges, which extend from Mt. San Jacinto above modern Palm Springs far southward into the peninsula of Baja California. With extreme difficulty the trail ascended this eastern face, some 4000 feet in height.

Atop, the country was brushy, with some open woodland, considerable feed at most times, and occasional water sources – all of which must have looked like Paradise after the past months of desert travel. The land is hilly, but a gently sloping route was selected for the descent to San Diego. Today the route is roughly paralleled by I-80.

North of the direct San Diego route, the Peninsular Ranges are traversed by a series of pronounced northwest-southeast aligned faults, creating mountain blocks separated by longitudinal valleys trending in that direction. The second branch of the Gila River Trail made use of these valleys to cross the ranges diagonally in the general direction of Los Angeles.

The route branched from the direct San Diego trail near the foot of the mountains, and followed essentially the course of today's County Route S-2 northwest past Warner Springs, along the northeast foot of Mt. Palomar, and thus into the interior basins of southern California. It traversed the region with a modest supply of water from scattered springs, with some feed and browse at most seasons, and with a minimum of steep grades. Curiously, today the route is of minimal importance.

A variant of it, curving westward and southwestward between the fault block mountains, was used by travelers headed for San Diego, but desiring to avoid the frontal assault upon the ranges farther south.

The third branch of the Gila River Trail's westernmost portion diverged from the other routes on the western side of the Algodones Dunes in the southeasternmost corner of California, and headed northwest up the center of the Salton Trough – which at that time was bone-dry, lacking the modern Salton Sea which formed after 1904.

For about 100 miles, the route was almost perfectly flat, and with a good surface for wagon travel. Beyond modern Indio, a gentle slope led up into San Gorgonio Pass (2600 feet) between the massive towering blocks of the Peninsular Ranges, culminating in Mt. San Jacinto on the southwest, and the San Bernardino Mountains, culminating in Mt. San Gorgonio on the northeast. The divide at the Pass, between the desert drainage and that to the Pacific, is virtually undetectable. Beyond, the trail led easily into the interior basins of coastal southern California. Once again, it was the San Andreas Fault which was responsible for creating this fortuitous opening in the Bordering Ranges that permitted such easy entry into California.

While the route was direct and the grades were easy, the absence of both water and feed for great distances, combined with the excruciating heat of summer, made it a terrifying experience for many, and greatly affected its popularity.

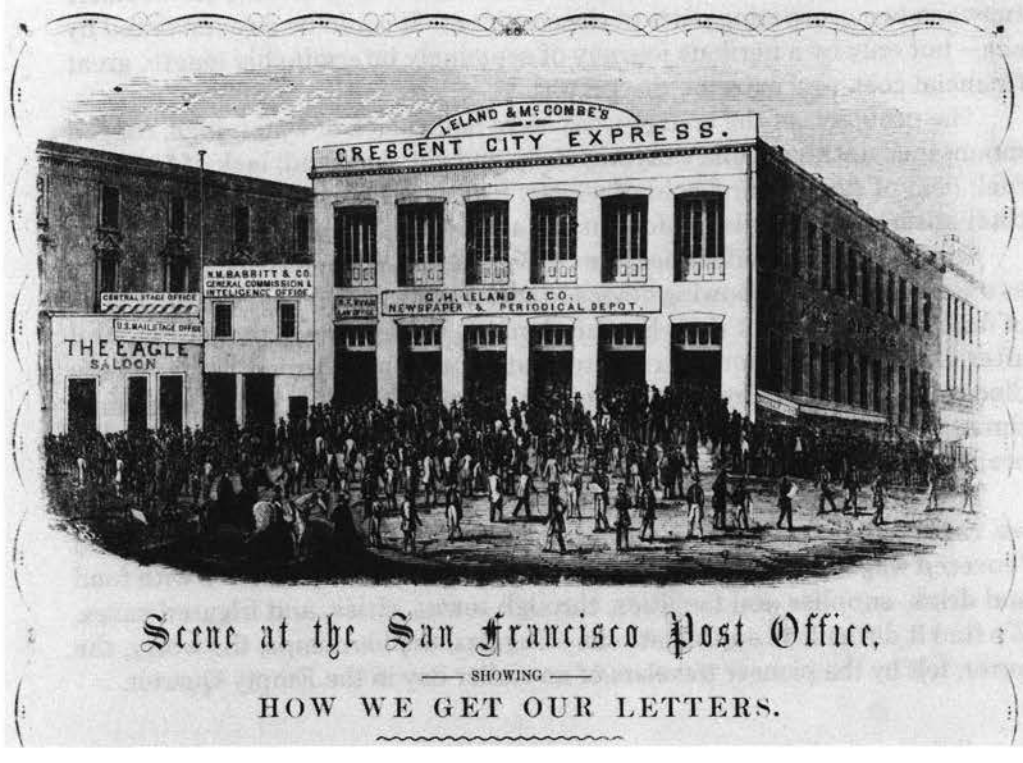
This was the Empty Quarter of America – a place of vast distances, devoid of people, towns, civilization, and almost insurmountable obstacle between two prospering parts of the continent. It could be circumvented by sea – but only by a perilous journey of seemingly interminable length, great financial cost, and extreme discomfort.

The problems of the land journey were many: lack of water; high, rugged mountains; untraversable canyons; deep and shifting sand; lack of feed and fuel; heat of summer and cold of winter; fierce and warlike Indians; and the total absence of supplies, information, amenities, and even of people.

So great were the difficulties, the challenges, the obstacles, that they served as a screening and winnowing device to sort out the would-be traveler. Those of faint-heart never left their Eastern homes. Others began the journey and after experiencing a portion of it, turned about and returned home. Many died on the way, from Indian attack or the rigors of the life. Those who came through to the Coast were the brave, the hardy, the organized, the well-prepared. Thus it was of the best stock that the West was built.

Today, the Empty Quarter is still there, at least in its physical form. But we race across it in our motorized, air-conditioned, cruise-controlled "covered wagon", on paved roads, past way-stations fully stocked with food and drink, supplies and facilities, through towns, cities, and irigated oases. We find it difficult to appreciate the struggles, the hardships, the worry, the terror, felt by the pioneer travelers of an earlier day in the Empty Quarter.

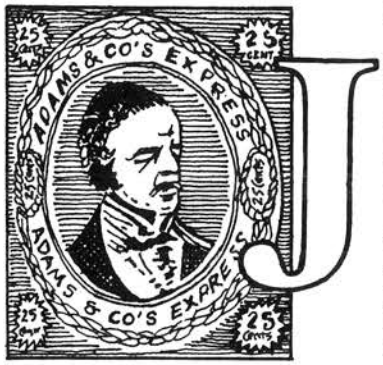
Examples of fancy scenes on envelopes for use over the Butterfield route.
Such printings are called corner cards by collectors.



The San Francisco Post Office about 1853-54, from an original Letter Sheet
Courtesy of The Huntington Library

Far West Mail
The Struggle to Deliver
1849-1859

by FRANK Q. NEWTON, JR.



JOHN SNYDER, doctor turned California gold miner, was lucky on that June day of 1852. The lines at the San Francisco Post Office were still as long as he remembered when he first arrived, but service was faster. Ordinarily, a letter addressed to him and marked to show postage paid, such as the one he held in his hand, would be placed in his newly rented post office box. But this one had to be forwarded over from Coloma so it was held for a 5¢ extra fee.

Clutching it tightly, he left the milling crowd, found a discarded keg to sit on, and was soon taken back to his home town: Belleville, Illinois. At this moment you could not have convinced John that the U.S. Mail had failed him.

BEFORE GOLD: Communication by Mail to the Far West would never outpace the proverbial snail at the rate it was advancing. Letter service had been better during an earlier time when the Mexicans had a 1500-mile continuous chain in operation. In contrast, the Eastern U.S. system had numerous short runs with many contractors relaying mail from one to another. Much of the methods, rules and regulations, and attitudes of the postal service harkened back to what some critics might call a "tavern and trail" operation. The mail bag would be dumped out on the floor of a local tavern and then some fleet-footed lad would take it down an Indian trail, but not before the jolly imbibers

had pawed through the mail. There were few opportunities for entertainment.

Most letters went collect – mandatory prepayment of postage had not arrived – and when a prepaid letter appeared, a sharp runner tried to charge again! On the other hand, the recipient was not above trying to read the letter on some pretense before he paid. Then he would hand it back saying, "Sorry it does not belong to me."

Withall, much verbal abuse was heaped on the Post Office Department, as letters could be in their system for weeks and weeks. The government insisted on having sole right to a postal system and Congress used its power to declare all roads and waterways upon which mail moved as Post Roads. This did not go unchallenged, but almost everyone had to admit the Post Office was in a strong position considering that public monies built many roads and canals.

There was general approval of ship and packet boat carriage of mails, with flexibility to choose ports, creating price competition due to the many vessels. But even here there were problems. The captains wanted their cut, and opposed having post office people aboard to monitor their activities.

The populace particularly liked the so-called mail coaches which came closest to their homes and businesses. Even more, staging afforded a chance for under-the-table services. This the Post Office could not cope with, and it became a gnawing wide-spread problem. Money was simply not available to put enough special agents in the field.

From the 1840's on, railroads provided fixed targets for postal inspectors, and aided considerably in the suppression of these "evils." However the years preceding the Mexican War were not immune to a host of problems, big and small.

For one, there was never enough money. Granted, a report by the Postmaster-General in 1851 shows an excess of income over expenses through 1845. Astoundingly, there were over 14,000 post offices!! The poor quality of the nearly 144,000 miles of post roads, however, can hardly be imagined. Nevertheless, before the California gold rush the Postal Service was already a $5,000,000 business.

The desire and premise by Congress, which ultimately dictated the basic policy of the Post Office Department, was that it be self-sustaining. The Post Office in turn hoped, if not expected, every facet to at least break even. Such naivete implied that sales at each office would balance expenses. But Congress was already at work undermining this lofty goal.

For one thing, our Solons early debated free franking of mail for themselves, and some other governmental departments who happened to be in their favor at the time. This argument, of course, continues to this day.

For another, printed matter of all sorts initially went free. Example: The Federal Register. Congressmen were naturally interested in mailing anything printed where they were quoted, no matter how trite or trivial. The mail was overflowing with this kind of paper "fodder."

News Item: *Mountain Democrat*

> By stage there came to Placerville Post Office six large U.S. mail bags chuck full of public documents – presumably messages and accompanying documents; very exciting reading for winter evenings, addressed to Hon. H.F. Page.

Our Congressmen early recognized that mails provide a vital link to our expanding territories. So the deficiencies, starting in 1851, were accepted but watched. Postal rates were not raised to keep finances in the black. Letter mail rates were not applied to newspapers. The press, however, did not hesitate to nip at our government servants.

Then there were those well-read tavern boys who were as outspoken as the newspaper editors. Were they not pushing the frontier westward – all the way to Ohio, Illinois, and some places yet unnamed? One Post Office tentacle had reached into Missouri via a stage line in the early 1820's, not too bad for the times and conditions.

The continuing abuse of the Post Office Department was unjustified in many instances. The desire of Congress to build solid political bridges westward led to a liberal policy of charges for long-haul carrying of the news. For some time, papers within a state were moved in the mails free. Editors came to expect being subsidized; some say spoiled. Even for one hundred miles or more the cost to subscribers was a mere 1½ cents; compare this to the 12½ cents postage for a light weight letter, or the 40 cents west of the Rockies.

Consider also the implications of the policy which permitted sending letters collect, where the addressee pays the postage, whatever it might be! Such a system could and did work in a stable eastern society. Once in a while letters chased people out to the wilderness and back. If the letter was heavy it could cost 24 cents or more, a sharp 'bite' for those times.

In the 1840's numerous independent mail services came and went on routes which promised good returns. Expresses are sometimes difficult to separate out from so-called local carriers, the private businesses mostly operating within a town (not to be confused with the mail carriers of today). Since postal delivery to houses did not exist then, or for many years thereafter, some of these independents sold stamp-like stickers which entitled purchasers to city delivery service, and drop boxes appeared around cities.

Although the Act of 1845 put most private mails out of business, a few struggled on under dubious pretenses even until 1861. San Francisco had intermittent service in her early days. The government's complaint, equally valid today, was that private carriers skimmed off the profitable business and the Post Office Department was left with the rest.

The practice of mailing collect was not changed until 1855. By then postage stamps had been accepted, postal rates reduced, and pay-as-you-go was mandatory. A lot of abuses were thus corrected. The government passed all kinds of laws, although enforcement was quite another matter. Legion are the tales of citizens and businesses trying to get packet boat passengers, some complete strangers, to carry letters. Wagon and stage drivers were pressed to drop off packages and messages, all schemes to circumvent costs.

Disputes over the Statute titled "Restriction on the Transportation of Letters" spilled over into the courts. Relatively little postal service existed on the Plains, in Oregon or Texas. In the 1840's one could hardly persuade someone in, say, Boston or New York to worry about western mails. The eastern working man-in-the-street cheered on the private mails because they promised cheaper costs and door-to-door service. Nobody wanted to venture out in the snow to a post office which often was way across town, and might not be open when one got there. This restrictive statute was concocted for eastern problems. Its very confining regulations still apply today. And it is periodically challenged in our courts.

To most, the West was a vague uncharted area out around the Mississippi or Missouri River with only trappers beyond. It would soon become obvious that Washington was totally unprepared for the demand ahead as we emerged from the Mexican War. Here was not only a very large new land, but there was the immediate, overwhelming impact of the California gold rush. Applying an eastern style mail system to Far West conditions was simply not going to work!

For many people in the West, the Post Office was the only contact with the federal government, and about as much as those free-thinkers wanted to do with it – so long as the mail came. In all fairness to the Post Office, it is doubtful if anybody outbound gave a thought about the mail until he arrived in the West.

The government in Washington had a vague idea of the "New West." True, some individuals had been there, but unless one trod the prairie or stood on a deck looking at ocean swells, the vastness was hard to conceive. The Post Office itself was often preoccupied with chasing private carriers up and down their eastern post roads, or trying to find and destroy privately

printed stamps. To many users it seemed unfair that our government would not allow competition that might lower postage costs.

Conditions in 1848 only deepened the morass.

TO THE MILLRACE AND BEYOND: As long as California was under the Mexican umbrella, our Post Office was not obligated to give any service to American citizens. It tried to provide some service to Monterey officials, but then the bumblings of running flags up and down and the several disconnected military forces marching around discouraged most action by postal authorities. Communication was by special messengers and couriers, often traveling on Navy ships and by horseback. For instance, a missive by courier arrived at Monterey in January 1847, leading to a declaration that war in California must have ended. Here were more ingredients for a false flag raising.

Relatively little mail seems to have been outbound. Surprisingly, a mail bag at the San Francisco *Sun* did leave for Boston in early February 1847. Such a bag was certainly not official.

One of the very first efforts to establish a mail was by Governor Kearney in April 1847. Two parties of soldiers on horseback were to start, one from San Diego and one from San Francisco, to meet at Dana's ranch to exchange mails and then return. Fremont, seemingly with a mind of his own, had his own courier who rode the trail between San Francisco and Monterey.

When 1847 dawned Congress was busy revising mail matters. A positive step was to authorize funds and advertise on March 2 for a contractor who would transport mail to Astoria, Oregon, now firmly in American hands. For this service they budgeted $100,000, but no acceptable bid was received, even by waiting until the following December!

By the Act of March 2, four steamers were approved to be built, using the Navy Department constructors. By a stroke of good fortune this came about. For this the Congress and Postal Department must be complimented as the outlay was large, and there was no assurance of breaking even on costs.

The government listened to many schemes. One Charles Cady, really an expressman, promised to carry a "mail" and connect with the government mail. He claimed that there were "Post Office Stations" at San Francisco, Sausalito, San Rafael, Petaluma, Sonoma, Napa, Benicia and Fort Sacramento! It is hard to imagine what these "Stations" were in July of 1847, as no officially appointed Postal Agent was on the ground in California until after mid-1848.

Governmental dispatches had been carried overland on a trial basis by that historic character, Solomon Sublette, who went via St. Louis and Santa Fe and through to California in 1847. Other letters were taken toward

Oregon via Fort Hall, and a party was sent by the government to intercept the emigrants in hopes of getting mail. Safer routings remained by ships to and over the Isthmus of Panama, a short and sometimes steamy crossing, and then up the coast to Astoria. Indeed, Astoria is considered to be the birthplace of the Far West mail system. Instructions to ships carrying mail were to stop at Monterey and San Francisco if there were letterbags, otherwise to go direct to Astoria.

Meanwhile, inland Sacramento, the base town for the new gold camps, found itself with a newspaper but no post office. A cry by a subscriber (often written by an editor starved for copy) pleaded a case for a regular mail service. There were alternatives, but at greater expense. Expressmen started networks from the base towns to the hills for fees from 50 cents to $5.00, not bad pay for a man willing to struggle with swollen streams, rain and difficult trails.

Finally, May 30, 1848, brought a signed treaty with Mexico and "All the Blessings and Benefits" of the United States government were extended over California. Now there would be Post Offices and a nicely organized network, or so it was thought. In spite of being 3000 miles from the seat of government, the task could have been accomplished.

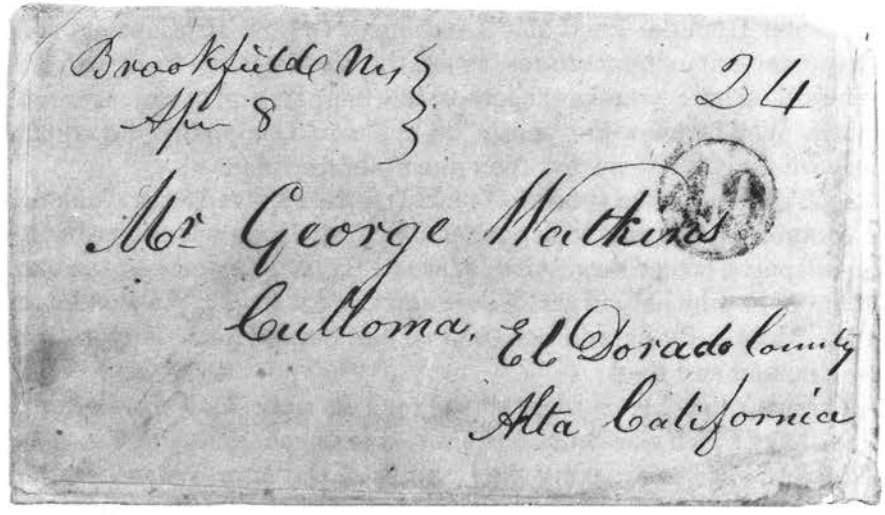
As was soon evident however, there was no such luxury.

February 1848 burst forth with rumors of gold. Although confirmation of this was delayed, the rumors vacated the coastal towns, started mass tramping to the hills, sharply escalated the cost of everything, and increased the cries for mail services. No one could have prepared for this.

One real miracle was that mail steamers were actually being built and Special Agent Van Voorhies was already appointed for California. With him on the first trip of the new steamer *California* was a mailbag – thin, but it was official mail. He also left a bit of mail at Monterey. Upon arriving at San Francisco in February, he found no place to rent within the budgetary guidelines given him. And what's more, the appointed San Francisco Postmaster, one Samuel At Lee (sic), was in parts unknown, and evidently never arrived.

Van Voorhies repaired to the general mercantile store of Ross, Benton & Co. The mail was sorted out on the floor and counters of this establishment. Although the first post office of record opened November 9, 1848, this has to be considered as San Francisco's first post office. On November 21 the second California post office was opened at Monterey.

Postal service was thus born amid struggling conditions in a far-away land and with stinted funds. The series of letters between Van Voorhies and his successors and the officials in Washington show little or no understanding by the latter, nor a desire to face the realities of the conditions in California.



New York to Culloma via ship. "Culloma" spelling was used 1849-51.
Note "Alta" a holdover from the Mexican period.

Illinois to Coloma and forwarded to San Francisco. Via ship, 1852
Note John Snyder's San Francisco Box number.

BUILD UP AND DECLINE: By late March 1849, Van Voorhies had been replaced by the new Agent, Allen, and the "States" had a new President and Postmaster-General. This complete change of administration not only led to no improvement in the attitudes toward the West, it made them worse. Agent Allen worked hard to make the impossible happen, and at a meager return to himself. Well he knew that those "up hill" could scoop up gold equal to his yearly salary in a few weeks. You must admire Allen.

Soon a hand-picked veteran of postal matters arrived from Washington, a Mr. Moore. He not only took over as San Francisco Postmaster but was, in some respects, forced down Allen's throat! Bayard Taylor wrote an excellent account of how he helped Mr. Moore sort out the mails. We should not cast out Mr. Moore! By September 1853 he had burned himself up, returned to New England and died.

Myriads of problems plagued the mail service. Mail traveled in India-rubber bags which wore out on the way due to constant rubbing. The bags leaked and got hot crossing the Isthmus of Panama. When dumped out, letters with wax seals (then a widespread practice) stuck together. Many names and directions were obliterated, and the precious letters never reached their destinations.

The October 1849 arrival of the ship *Panama* brought 37 bags of mail – the entire shipments for July, August and September – numbering 45,000 letters and bushels of newspapers. The eight clerks sweating it out in an ill-lit and dingy, overcrowded building were completely overwhelmed. It took several days to sort it and all the time an angry crowd outside banged on the walls.

The Panama government had been charging a price *per bag* to allow the U.S. mail to cross their land. Allen reported that he had obtained an agreement with them to charge mail on a per shipment basis which reduced costs to one-tenth. The Panamanian authorities hardly waited until Allen was out of sight before they reneged on their verbal agreement.

Everything was going wrong. Out West very few roads were declared "Post Roads", one of the ways used by the government to preempt private competition. Without a road declaration or enforcement of the statutes which had so stifled the eastern establishment, the West was wide open for private enterprise.

Thus, legally, emerged the Western expressmen – those who could not or would not stand in cold water in the mines. They each had their so-called books: lists of names and signatures of "up-hill" people which authorized them as their subscribers' agents at post offices. Individuals on horse or muleback ran the trails, and the postal people were helpless, even with added

30th CONGRESS, 2d Session. [SENATE.] MISCELLANEOUS No. 13.

MEMORIAL

OF

WELLS & CO., AND ISAAC NEWTON AND OTHERS,

Who have formed an association for the purpose of carrying freight and passengers across the isthmus of Tehuantepec, and asking aid or conditional compensation for carrying the United States mail across said isthmus.

JANUARY 9, 1849.
Referred to the Committee on Military Affairs, and ordered to be printed.

To the honorable the Senate of the United States and House of Representatives in Congress assembled:

The undersigned and their associates having formed an association for the purpose of carrying freight and passengers on the rivers Chimalapa and del Passo, and by mule or wagon carriage, or railway across the intervening territory, that is to say, across the isthmus of Huasacualco or Tehuantepec, by which means the distance from the Atlantic seaports of the United States to San Francisco will be shortened about three thousand miles, securing to our citizens a safe, speedy, convenient, and healthy mode of transit, and greatly facilitating our commercial intercourse with our new territories on the Pacific, respectfully ask of your honorable body to extend to them such countenance and aid, either by a direct grant or conditional compensation, for carrying the United States mails and naval and military stores across the said isthmus as shall, upon due consideration and examination of documents and guarantees, to be submitted to your honorable body, be deemed just, expedient, and conducive to the public interests.

All of which is respectfully submitted.

WELLS & CO.,
ISAAC NEWTON,
S. DE WITT BLOODFORD,
And associates.

NEW YORK, *January* 5, 1849.

Tippin & Streeper, printers.

post offices. The expressmen's quick and reliable service was desired and gladly paid for. Miners moved frequently, and maybe far. The folks back home were already confused over addresses, but the miners sometimes tried to help by giving instructions to send mail in care of so and so, or in care of a store, or to San Francisco or Sacramento, or to some place they expected to be. The expressmen filled this gap admirably. Any letter not picked up was advertised in a local newspaper for a fee. The expressmen certainly did not overlook these chances for added income.

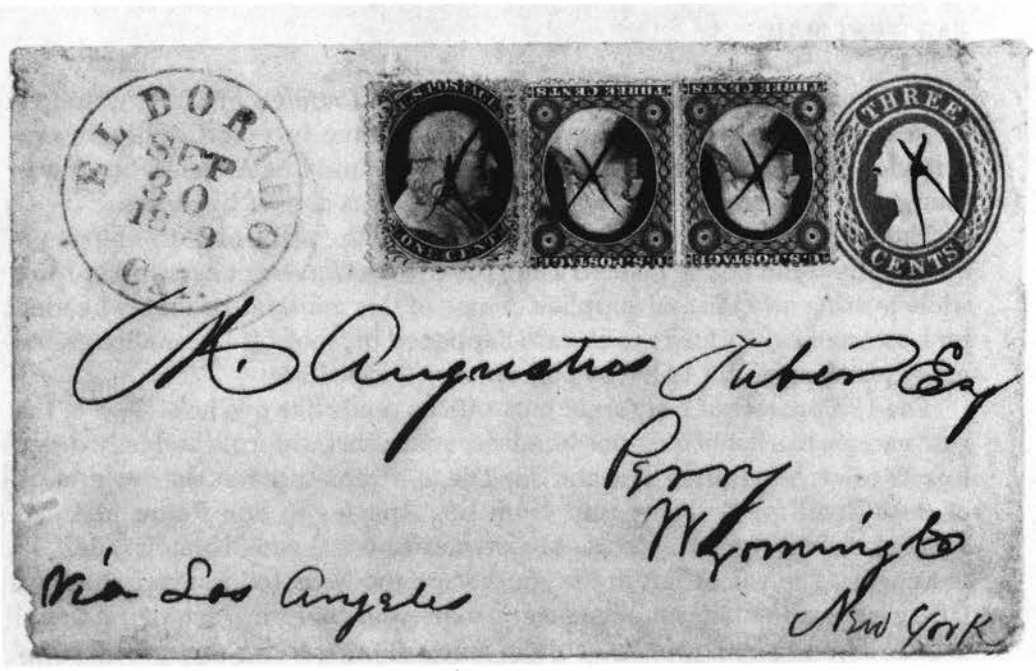
The ocean mail system had settled down remarkably well by 1852, and the fever-laden Isthmus was fairly "defanged" and made easily passable by the completion of the Panama Railroad in 1855.

While mail transportation costs from east to west remained high – in the million dollar range – the system did work. Californians got their letters and newspapers regularly. When speed was demanded, there was the expressman.

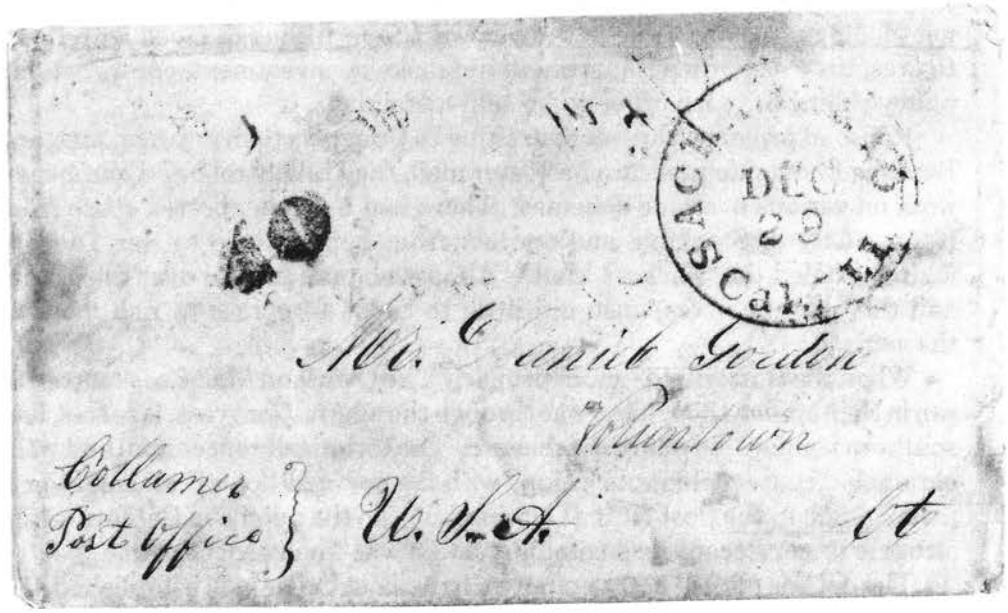
Passage of people was quite another matter. Rumors spread of overcrowding in the steamers, deaths along the way, bad food, etc. But sea travel was the quickest, and everyone was in a hurry. For those who are statistically inclined, in 1853 almost as many left the Pacific Coast for home as came west, by ship passenger count. The oft-repeated remark by miners about only being "Out West" for two years is amply supported by data.

The government had been considering mail routes via the overland trails made by emigrants across the Plains, but Congress was dawdling until the best routes were found. Needed were year-round mail roads, and it was well known that wagon trains moved out with the coming of spring or one risked getting caught in the snows. The Donner tragedy was still fresh in people's minds.

Private enterprise had no such a conservative bent. There were various high sounding proposals to put mail through from Missouri to Salt Lake, or from Fort Smith to San Diego, etc. The first Salt Lake to California mail contract was awarded in April 1851, to Woodward and Chorpenning. Travel in the month of May was not expected to cause problems, but it took the new contractors sixteen days just to go from Sacramento to the Carson Valley and over a month all told to reach Salt Lake. They continued to struggle all summer, had some Indian problems, but worse, Woodward died by Indian hands in November. Finally the remaining partner could endure no longer. He was allowed to send the winter mails down the coast to San Pedro, then move them overland via Cajon Pass and from there over the Mormon Trail to Salt Lake. Chorpenning has never received the full credit he is due for his efforts, nowhere near as much as the highly-touted and fabled Thompson, one of several who snowshoed across the Sierra.



California to New York via Butterfield Overland through Los Angeles, 1859



West to East, December 29, 1849, via ship.
Both Sacramento and Coloma post offices were authorized to start November 8, 1849.

Although the Los Angeles Post Office was founded in 1850, only two pieces of mail are reported by collectors to have survived. There was a considerable increase of traffic through and around Los Angeles, but it was thought of as such a sleepy little town that it was almost bypassed.

San Diego was, perhaps, a better harbor and the scene of more ship stop-overs. She could not be blamed when the *Golden Gate* went aground in 1854 while putting off mail and supplies. Some of this mail was probably headed for Los Angeles. By luck the *Goliath* happened by, took off 135 mailbags and many passengers but failed to pull off the *Golden Gate.*

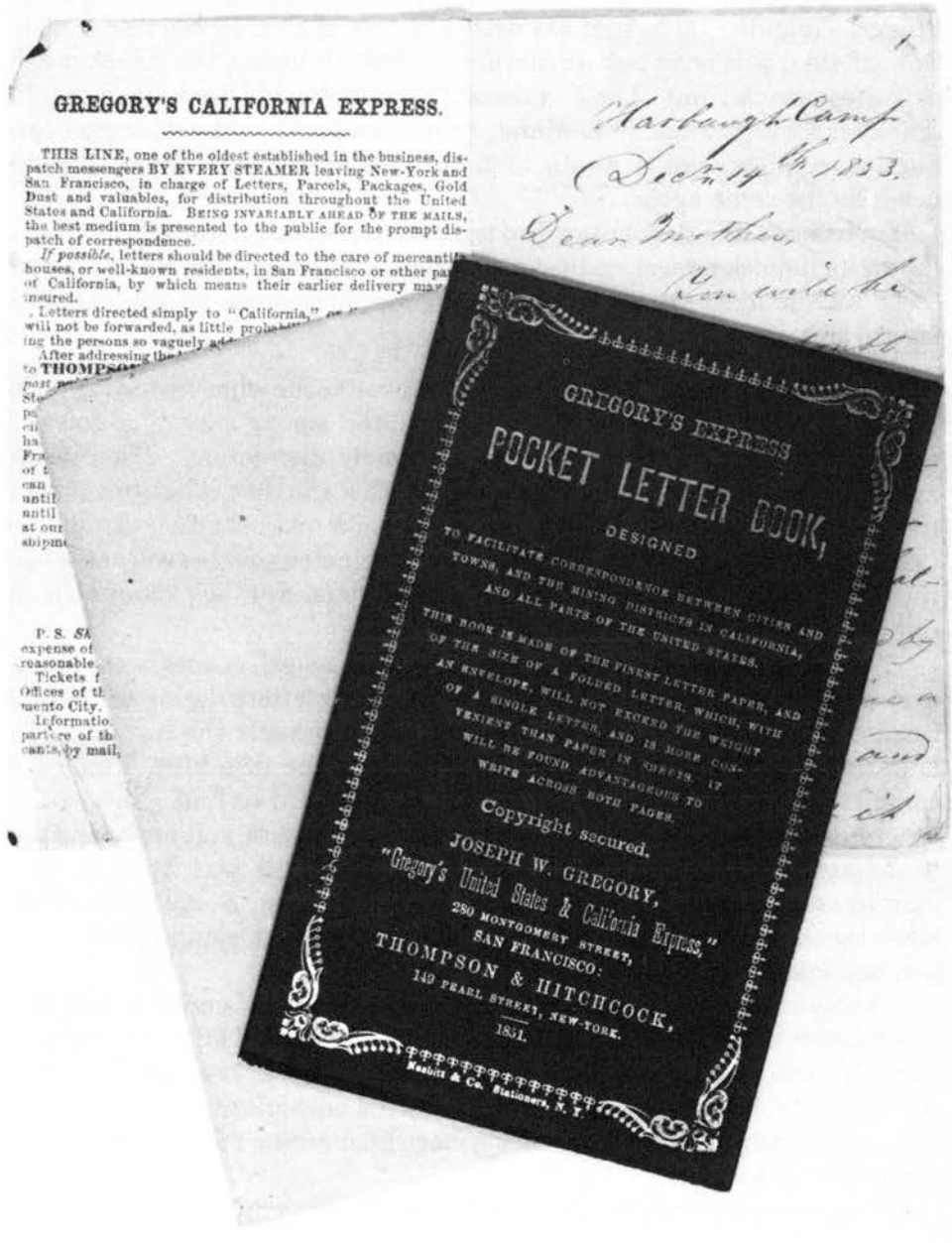
The 1853 roster of California post offices reads like a Who's Who of the gold camps; in a list of over one hundred, southern California had only three: Los Angeles, San Bernardino and San Diego. Premature was the declaration of Post Road for both the runs from Los Angeles to San Pedro and Los Angeles to Gila Town via Chino. Most Americans, a decided majority, left for the north. The voices left in the south were too weak to influence the Post Office Department; it would be several more years before Washington would listen. The south, however, actually enjoyed fair service due to the many ships stopping at her door, and the several mail lines being routed southward, buttressed by the efficient expresses.

Little effort has been made to write a comprehensive history of the Post Offices of southern California. Postal archives of Los Angeles show a *total* net income of $303 for the entire year of 1858. Although faced with these figures, the Post Office Department did make an investment, contrary to its policy calling for each office to be self-sustaining.

Railroad projects were more exciting to Congress than any mail matters. Bending to outside pressure for faster mail, they finally relented and began work on various overland schemes. There had been an aborted route from Kansas City to Stockton, and another from San Antonio to San Diego – jokingly called the "Jackass Mail." Almost no mail passed over this route, and this very poor response did little to cause Congress to risk more of the same.

When the Butterfield – more properly The Overland Mail Co. – started to run in September 1858, it too was through the south. Congress, it seems, had southern leanings, as was often charged. The technically successful and well-chronicled Butterfield routes, along with the now well "oiled" steamer lines, meant much to the Post Office Department. To the people in California, the struggle to get decent mail communication was finally successful.

The decade of the 1850's ended with the Post Office well established and growing, but not too efficient, and certainly not on sound financial footing. War clouds were building. Ahead were romantic adventures such as the



Letter Book and envelope, 1851
The lined pages provided handy stationery.

daring-do Pony Express. Although a catastrophic financial failure, the Pony Express caught the heart of the country, which seemed ready to have its dreams expanded by images of fleeting hooves chased by painted Indians. Butterfield would soon pull up his line and Ben Holladay would become the new Stagecoach King. The Overland Telegraph would connect up, and in time the railroads would link. Many problems would be solved for the Postal Service, communication would blossom everywhere, and America would never be the same again.

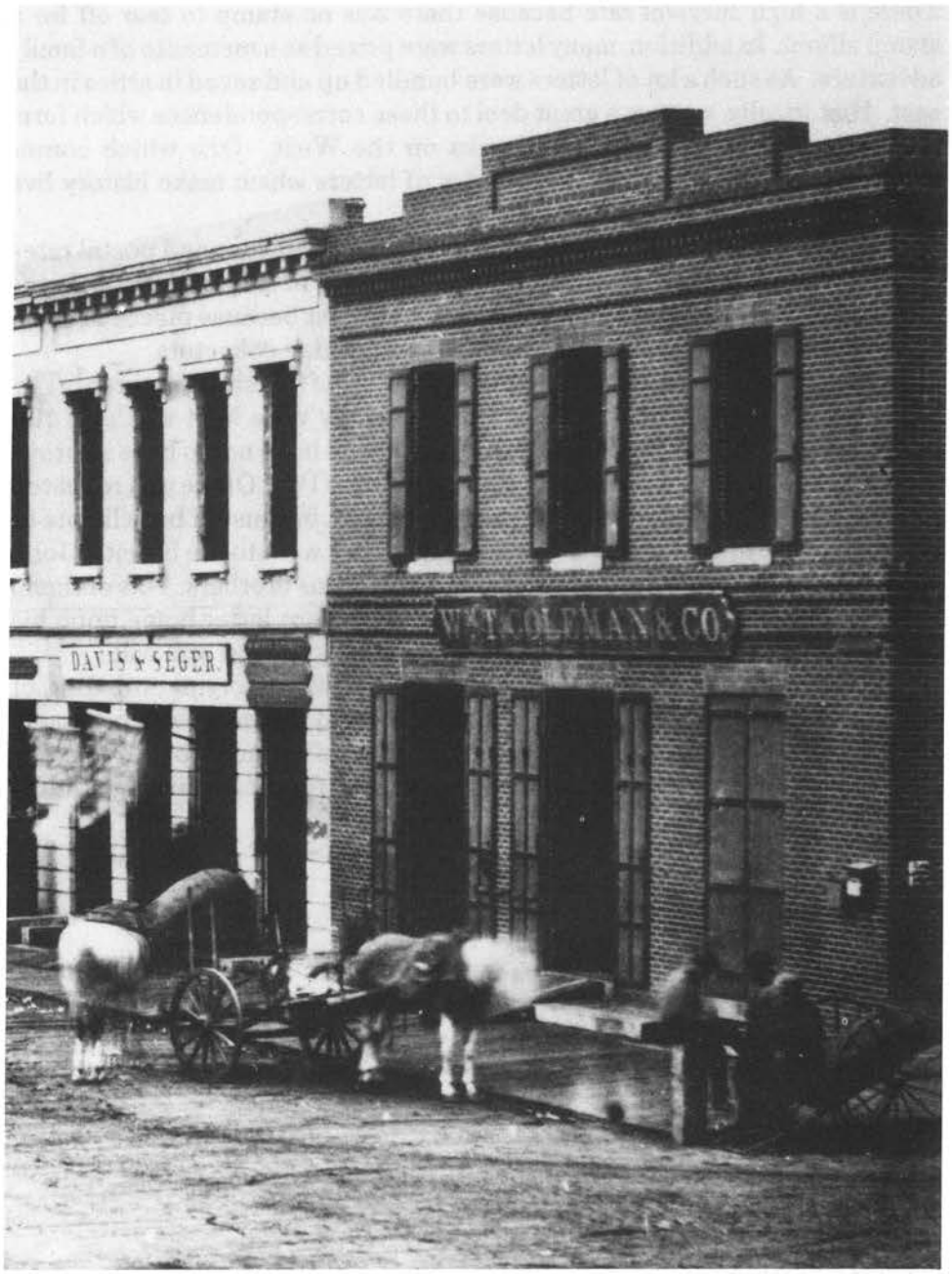
On balance, the Post Office had not acted fast enough to still the cries of the get-rich-quick miners, or the spoiled-brat newspaper editors. But most of these with loudest voices had already gone back home as the Far West faced 1860.

WRITER'S NOTES AND COMMENTS: It occurred to me when reviewing postal history that the information was well scattered among a lot of sources. In addition, chasing footnotes became extremely distracting. Then when I mulled over postal rate schedules, charts of this and that, it became obvious that none of this was necessary for a short review on Post Office struggles to get the mail West. The accompanying list of selected sources will serve up to the reader more than most could want in a lifetime. For the serious collector or historian the list could be only a start.

The illustrations, most being of what collectors call covers, were chosen to show what the majority of people used for their letters during 1849-1859. Collectors strive (within their pocketbooks) to possess the high-powered material-printed scenes, special markings, one-of-a-kind items and completeness – all of this being expensive and hard to find. Many of the covers used in the 1850's were made of a dark tan, coarse, soft paper and tend to disintegrate. The demand for writing materials was filled by town merchants and roving peddlers who ranged the hills. Some sold colorful letter sheets and envelopes showing scenes of the West, along with the usual pen and inks.

Thrifty writers tried to keep letters under one - half ounce in weight by using sheets of thin hard paper, one of which they folded into an envelope of sorts. To use an outer envelope with a letter inside, as is customary today, could double the postage, since weight was the only criterion. Considerable ingenuity was applied, such as writing more lines across at right angles to the rest of the script!

Many letters went collect, but the Post Office soon tired of chasing people around and prepayment of cross country mail became the norm. The absence of stamps on very early mail has been to the collector's advantage.



W.T. Coleman's Mercantile about 1853. Corner of Front and California streets.
What look like postal boxes at extreme right are private letters drop boxes.
Fardon view, courtesy of George Eastman House.

There is a high survival rate because there was no stamp to tear off for a stamp album. In addition, many letters were prized as a memento of a family adventure. As such a lot of letters were bundled up and saved in attics in the east. Historically, we owe a great deal to these correspondences which form the basis for some of our best books on the West. One which comes immediately to mind is the Swain series of letters which make history live again.

As regulations changed, stamps came into universal use and postal rates were reduced following the successful experience of England. Envelopes now enclosed letters, but some history has been lost because pieces became separated, much to the consternation of present-day collectors.

John Snyder, whom we met slightly at the start of this study, was real. The covers and letters written by John and his family were kept all these 130 years, and I feel privileged to have seven of them. I hope not to have to prove that John actually sat on a keg, but the scene at the Post Office was repeated almost daily for years. When miners could not work because of bad climate or no water, or they just wanted to let off steam – they went to the big city. John did. I hope to dig deeper into the lives of John and his brothers. One of them, Fred, perished in California. Fred wrote an excellent letter home upon his arrival here after an 1849 overland trek. A mini-journal if you will.

Perhaps I have overdwelt on the pre-1845 postal history period. But, of course, everything which did or did not happen to the mails was originally acquired from Britain and modified to suit America's conditions. In this way the "colonials" had a running start when faced with forming mail communication to the Far West.

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Far West Commerce

The vitality of the Far West shows in its commerce. Following is a selection of advertising which will give an idea of just how important this was. While most of the ads are from the famous-nine-hundred page PACIFIC COAST BUSINESS DIRECTORY FOR 1871-73 complied by Henry G. Langley, a couple of things are from times before and after this massive treasure chest of history...

K.F.S. Jr., Editor

WELLS, FARGO & CO.

EXPRESS AND BANKING COMPANY

CAPITAL..... $1,000,000.

FORWARD REGULARLY TO ALL PARTS OF

California, Oregon, Nevada, Utah and Washington Territories, the Atlantic States and Europe.

DRAW DRAFTS

On all the principal Cities and Towns of the Atlantic States; the Union Bank, London, and the Royal Bank, Dublin.

Ship TREASURE, PACKAGES,

Etc., at the Lowest Rates, to all parts of the World.

Make Collections and attend to Commissions for the Purchase of Goods.

LOUIS McLANE, General Agent, San Francisco, Cal.

Offices in GENOA, CARSON CITY, SILVER CITY, GOLD HILL, VIRGINIA CITY, DAYTON and AURORA.

from *First Directory of Nevada Territory*, J. Wells Kelly, Publisher, 1862

LANGTON'S
PIONEER EXPRESS

LEAVES CARSON CITY, DAILY, FOR

SILVER CITY, GOLD HILL,
VIRGINIA CITY.

ALSO, LEAVES EVERY OTHER DAY, FOR

DOWNIEVILLE, SAN JUAN,
NEVADA, MARYSVILLE,

And all the principal places in Sierra, Plumas, Nevada and Yuba Counties.

OFFICE—At TREADWELL & CO'S BRICK STORE,
CORNER OF CARSON AND THIRD STREETS.

J. S. ALBRO, Agent.

LANGTON & CO'S
PASSENGER LINE

A FOUR-HORSE STAGE LEAVES CARSON CITY DAILY,
at Two o'clock, P. M., for

SILVER CITY, GOLD HILL,
And VIRGINIA CITY.

RETURNING,

LEAVES VIRGINIA CITY, DAILY, AT 8 A.M.

Through to DOWNIEVILLE on Sundays and Wednesdays.

The DAYTON Stage leaves Carson City, daily, at 8 o'clock, A. M.
Returning, leaves DAYTON at 2 P. M.

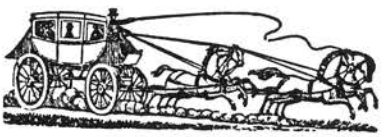
J. S. ALBRO, Agent.

from *First Directory of Nevada Territory*, J. Wells Kelly, Publisher, 1862

Railroad Stage Line

FROM

ELKO TO HAMILTON



Leaves Elko at 5 o'clock P. M. **Arrives at Hamilton** at three o'clock P. M. the following day, connecting with the

STAGES FOR SHERMANTOWN AND TREASURE CITY.

ALSO, FOR

ELY, and all Outside Districts.

Leaves Hamilton at 12 M., and **arrives at Elko** at 7.30 A. M. the following day, connecting with the trains of the

CENTRAL PACIFIC RAILROAD.

☞ **Especial attention given to the comfort and convenience of Passengers.**

BEACHY, WINES & CO.

PROPRIETORS.

from Henry G. Langley, *Pacific Coast Business Directory for 1871-73*

THROUGH EXPRESS TRAINS

LEAVE SAN FRANCISCO DAILY,

Making prompt connections with the several Railway Lines in the Eastern States, for all the cities of the UNITED STATES AND CANADA, and connecting at

NEW YORK

With the several Steamer Lines to

ENGLAND, FRANCE, AND ALL EUROPEAN PORTS.

THROUGH TIME GOING EAST From San Francisco to Omaha, 4 days and 7 hours; to Chicago, 5 days and 7 hours; To New York, 6 days and 20 hours.

SILVER PALACE SLEEPING COACHES,

SECOND TO NONE IN THE WORLD, are run daily from San Francisco to New York and intermediate points. These Drawing Room Cars by day, and Sleeping Cars by night, are unexcelled for comfort and convenience to the passengers while en route—combining the elegance of a private parlor and all accommodations pertaining to a well-furnished chamber, with comfortable couches, clean bedding, etc. A competent Porter accompanies each Car to attend to the wants of our patrons.

Children not over twelve (12) years of age, half fare; under five (5) years of age FREE. 100 pounds of baggage per adult passenger, FREE. 50 pounds of baggage, per child between 5 and 12 years, FREE. Extra baggage over 100 pounds, between Sacramento and Omaha, currency, $15 per 100 pounds.

THROUGH TICKET OFFICE,

415 CALIFORNIA ST., SAN FRANCISCO

Through Freights from San Francisco to New York and other Eastern Cities contracted through at low rates.

Mark Goods "Care C. P. R. R."

A. N. TOWNE,
General Superintendent C. P. R. R.

C. G. HAMMOND,
General Superintendent U. P. R. R.

T. H. GOODMAN,
Gen'l Passenger Agent, Sacramento, Cal.

FRANCIS COLTON,
Gen'l Passenger Agent, Omaha, Nebraska.

from Henry G. Langley, *Pacific Coast Business Directory for 1871-73*

California Pacific Railroad

AND

STEAMER NEW WORLD

FAVORITE VALLEJO ROUTE.

80 MILES SAVED in distance from Marysville to San Francisco, and THREE HOURS in time. 52 MILES SAVED from Sacramento to San Francisco. TWO EXPRESS TRAINS DAILY (except Sunday) each way, carrying U. S. Mail and all Fast Express. On Sunday, one Express each way.

COING SOUTH.

MORNING EXPRESS TRAIN Leaves Marysville at 5 A. M., Sacramento, 6.15 A. M., and Calistoga 6.45 A. M., arriving in San Francisco at 10.30 A. M.

AFTERNOON EXPRESS TRAIN Leaves Marysville at 1.15 P. M., Sacramento 3.15 P. M., and Calistoga 2.45 P. M., arriving at San Francisco at 7.30 P. M.

COING NORTH.

STEAMER NEW WORLD (Morning Connection,) Leaves her berth, Front Street Wharf, San Francisco, at 7 A. M., connecting at Vallejo with cars of California Pacific Railroad, by which passengers arrive at Sacramento at 11.20 P. M., Marysville at 1 P. M. and Calistoga at 11.45 P. M.

STEAMER NEW WORLD (Afternoon Connection,) Leaves San Francisco at 4 P. M., by which passengers reach Sacramento at 8.20 P.M., Marysville, 9.30 P. M. and Calistoga, 7.45 P.M.

SUNDAY TRAINS AND BOAT.

SUNDAY EXPRESS TRAINS Leave Marysville at 10.15 A. M., Sacramento 2.30 P. M., and Calistoga at 3 P. M., arriving at San Francisco at 6.45 P. M.

STEAMER NEW WORLD (ON SUNDAYS,) Leaves San Francisco at 8.30 A. M., passengers arriving at Vallejo at 10.15 A.M., Sacramento, 12.45 P. M., Marysville, 5 P. M., and Calistoga, 12.40 P. M. **RETURNING,** leaves Vallejo on the arrival of trains from Calistoga and Marysville, at 5 P. M., arriving at San Francisco at 6.45 P. M.

PASSENGERS, taking the Morning Express Train from Marysville at 5 A. M., Sacramento 6.15 A. M., and Calistoga 6.45 A. M., arrive in San Francisco at 10.30 A. M., giving them nearly four hours in the city. Returning at 4.00 P. M., and reaching Sacramento at 8.20 P. M., Marysville 9.30 P. M., and Calistoga 7.45 P. M., of the same day.

FREIGHT, for Sacramento, San Francisco, Vallejo, Marysville, Calistoga, Napa, Davisville, Knight's Landing, Woodland, and all way Stations, taken through as low as by any other route.

Procure tickets at 313 Montgomery street, San Francisco, or on board the steamer New World. Baggage called for and checked from Residences, Hotels, etc., by the S. F. Package Express Co.

FREIGHT NOTICE.

The new Freight Steamers VALLEJO and MOULTON, of the above line, will run daily (Sundays excepted) between San Francisco and Vallejo, connecting at Vallejo with cars of the California Pacific Railroad and Napa Valley Railroad.

Freight to Vallejo will be taken for $1 per ton; to Sacramento, $2 50 per ton.

Freight for Marysville will arrive there at 2 o'clock P. M., the following day.

The VALLEJO or MOULTON will leave the berth, Front Street Wharf, San Francisco, each day at 4 P. M. Returning, arrive in San Francisco at 4 A. M. the following morning. With the new and commodious barge NAPA, they are prepared to carry grain, machinery, and heavy freight of all kinds.

J. P. JACKSON, President.

from Henry G. Langley, *Pacific Coast Business Directory for 1871-73*

CENTRAL PACIFIC RAILROAD.

Quick Time and Cheap Fares

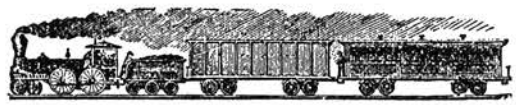
FROM

CHINA AND JAPAN TO NEW YORK AND LIVERPOOL.

THE GREAT OVERLAND ROUTE

VIA

Central Pacific Railroad



Is now in complete running order from

SAN FRANCISCO TO THE ATLANTIC SEABOARD

Through Express Trains leave San Francisco Daily,

Making prompt connections with the several Railway Lines in the Eastern States for all the Cities of the UNITED STATES AND CANADAS, and connecting at New York with the several steamer lines to

ENGLAND, FRANCE AND ALL EUROPEAN PORTS.

SILVER PALACE SLEEPING COACHES,

Second to none in the world, are run daily from San Francisco to New York and intermediate points. These Drawing Room Cars by day, and Sleeping Cars by night, are unexcelled for comfort and convenience to the passenger while en route—combining the elegance of a private parlor and all accommodations pertaining to a well-furnished chamber, with comfortable couches, clean bedding, etc. A competent Porter accompanies each Car to attend to the wants of our patrons.

GREAT REDUCTION IN THROUGH FARES.

Children not over Twelve (12) years of age, HALF FARE. Under Five (5) years of age, FREE. 100 pounds of Baggage per Adult Passenger, FREE. 50 pounds of Baggage, per child between 5 and 12, FREE.

Through Ticket Office, 415 CALIFORNIA ST., San Francisco.

Through Freights between San Francisco and New York, and other Eastern Cities, contracted through at low rates. Mark goods "CARE C. P. R. R." ☞ *Money saved by purchasing Tickets at the Company's Offices.*

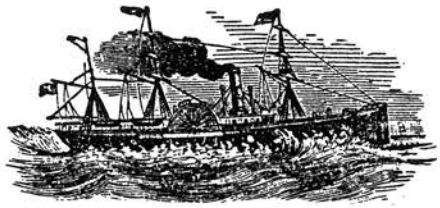
T. H. GOODMAN,
Gen'l Freight and Passenger Agent.

A. N. TOWNE,
General Superintendent.

from Henry G. Langley, *Pacific Coast Business Directory for 1871-73*

NORTH PACIFIC

TRANSPORTATION COMPANY,



DISPATCH STEAMERS REGULARLY TO THE FOLLOWING PLACES:

NORTHERN ROUTE,

Sitka, Victoria, Portland, Gardner City, Eureka, Trinidad and Crescent City.

SOUTHERN ROUTE,

Santa Cruz, Monterey, San Luis Obispo, Santa Barbara, Los Angeles and San Diego.

MEXICAN ROUTE,

STEAMER EVERY THIRTY DAYS.

San Blas, Guaymas, Mazatlan and La Paz, touching at Cape St. Lucas.

HONOLULU AND AUSTRALIAN ROUTE,

STEAMER ON THE 10TH OF EACH MONTH.

Honolulu, S. I., Auckland, N. Z., Sydney, N. S. W., and Melbourne, V.

OFFICE, 217 SANSOM STREET.

HOLLADAY & BRENHAM, Agents.

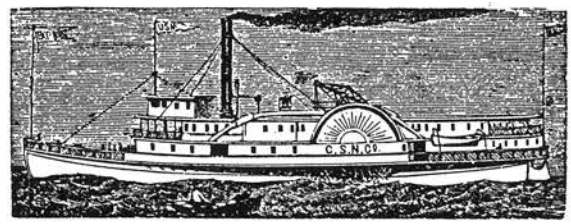
from Henry G. Langley, *Pacific Coast Business Directory for 1871-73*

CALIFORNIA
STEAM NAVIGATION
COMPANY.

Organized March 1st, 1854. - - - Capital Stock, $2,500,000.

The following are the Officers for the Years 1869-70.

President, B. M. HARTSHORNE ; Vice President, W. H. TAYLOR ; Secretary, S. O. PUTNAM; Trustees, B. M. HARTSHORNE, W. H. TAYLOR, A. HAYWARD, W. C. RALSTON, WM. ALVORD, A. REDINGTON, LLOYD TEVIS, JOHN BENSLEY and S. F. BUTTERWORTH. Agents —Sacramento, ALFRED REDINGTON; Marysville, C. H. KIMBALL; Red Bluff, SAMUEL JAYNES; Stockton, T. C. WALKER.



Departure from Broadway Wharf,

CARRYING THE UNITED STATES MAILS.

Steamer CAPITAL.....Capt. E. A. POOLE.
Steamer YOSEMITE.....Capt. E. A. POOLE.
Steamer CHRYSOPOLIS.....Capt. A. FOSTER.
Steamer ANTELOPE.....Capt. CHARLES THORNE.
Steamer JULIA.....Capt. W. BROMLEY.
Steamer AMADOR.....Capt. JOHN FOURATT.

ONE OF THE ABOVE STEAMERS WILL

Leave every day, at four o'clock, P.M.

(SUNDAYS EXCEPTED) FOR

SACRAMENTO and STOCKTON,

Connecting with the Light-Draught Steamers for

MARYSVILLE, COLUSA AND RED BLUFF.

For further particulars, apply at the OFFICE OF THE COMPANY,

N.E. Cor. Jackson and Front Sts., San Francisco.

B. M. HARTSHORNE, President.

from Henry G. Langley, *Pacific Coast Business Directory for 1871-73*

J. M. BENTON,

LIVERY STABLE

AND

STAGE LINE

FROM

CARSON CITY to GLENBROOK HOUSE, LAKE TAHOE, during the Summer Season.

First-class Private CARRIAGES, BUGGIES AND SADDLE HORSES constantly on hand. Private Conveyances furnished to Lake Tahoe at reasonable rates.

Horses kept and Groomed in the best possible manner.

S.E. cor. Carson and Third Streets,

Opposite Wells, Fargo & Co's Office, **CARSON CITY, NEV.**

from Henry G. Langley, *Pacific Coast Business Directory for 1871-73*

MERCHANTS' FORWARDING LINE

ESTABLISHED OCTOBER, 1858.

OFFICE AND WAREHOUSE,

48 AND 50 E ST., MARYSVILLE, CAL.

Goods received and forwarded to all parts of the United States and Territories at low rates. No Storage Charge on Transit Merchandise.

Mark Packages "Care M. F. Line."

Please request your shipper to be very particular to send shipping receipts accompanying every shipment of Goods. Send Receipts by Express. By getting them promptly, all unnecessary delay in looking up stray packages is avoided.

Wool, Hides and Lumber shipped to San Francisco.

I keep constantly on hand and for sale, FLOUR, GRAIN, and PRODUCE OF ALL KINDS. The utmost care and attention is given to filling orders and executing commissions.

FRANK BELL.

If you want to send money to any point get a WELLS, FARGO & CO.'S Express Money Order. It is cheap, safe, and handy, and can be bought at any office of the Company, and is payable everywhere.

If you want to forward packages, goods, or valuables to the West, to Mexico, or Europe, WELLS, FARGO & CO.'S Express will serve you well and at low rates.

from *Scribner's Magazine,* July 1888, Vol. IV, No.1

Healdsburg and Calistoga Stage Company

Leave Healdsburg daily, at 8 A.M., connecting with the cars of the California Pacific Railroad at Calistoga, for SAN FRANCISCO, SACRAMENTO and MARYSVILLE, and at Sacramento with the Central Pacific trains. Leave Calistoga daily at 2 o'clock P.M., on the arrival of the cars, arriving at Healdsburg at 5 P.M., connecting with stages for the Geysers, Skaggs' Springs, Cloverdale, Ukiah, Big River, Kelsey, Lakeport, Mendocino, and all intermediate points.

Passengers ticketed through from Healdsburg to all points on the California Pacific Railroad, and San Francisco.

COOMBS & FISHER, Proprietors.

from Henry G. Langley, *Pacific Coast Business Directory for 1871-73*

B. G. WELLS,

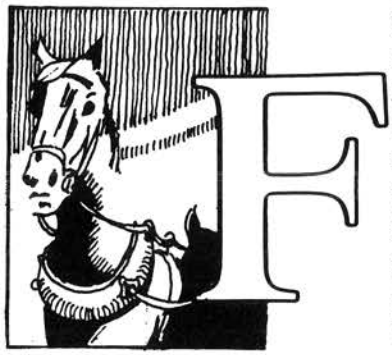
STAGE LINE,

From Hamilton to Eureka.

Our Motto: Quick Time, Fine Coaches, and Reasonable Rates.

Expresses: An American Enterprise

Anonymous



FOR THE LAST sixty years of the 1800's, and well into the twentieth century, *Harpers New Monthly Magazine* was a great publication. Its huge subscription and news-stand readership waited for it to bring them some of the best writers of its age. Among the most famous contributors on the West was the great artist-writer Frederic Remington, but many, if not most, of its best articles on the West gave no author credit.

This anonymous contribution was one of a series on American Enterprises which appeared in the mid-1870's under the general title AN AMERICAN ENTERPRISE. This one deals with expresses, one of the American enterprises so entwined with both the West and the Far West. It was published in August of 1875 when the memories, and many of the founders, of the western expresses were still fresh and alive.

Although much has been published on expresses, and a great deal of early material on them has been republished, this contribution has been almost completely overlooked. Whoever wrote it knew what he was writing about, and did a competent job, so it has been included here to add it to the literature on the subject.

Readers of this article should bear in mind that it was written for *Harper's New Monthly Magazine* which was published in New York City, and that it

therefore has a very eastern point-of-view. In this respect it is typical of most Western history contemporary with it, but this does not detract from its being both an important and interesting contribution to the basic source material on the subject.

This article was originally published beginning on page 314 of Vol. LI, No. CCCIII of *Harper's New Monthly Magazine* for August 1875. The original copy of the article used for the reproduction here is from the collection of the editor of Brand Book 17.

K.F.S., Jr. Editor

HARPER'S
NEW MONTHLY MAGAZINE.

No. CCCIII.—AUGUST, 1875.—Vol. LI.

AN AMERICAN ENTERPRISE.

TRAVELERS on the Long Island Sound of about thirty-seven years ago might have observed on board the steamer then running between Providence and New York an under-sized, delicately built, sanguine-looking young man, who accompanied the vessel on alternate trips, and constantly carried in his hand a small carpet-bag of half a bushel capacity. He was William F. Harnden, and his bag contained the beginnings of the express forwarding business of the United States, which, with the exception of the railways and telegraphs, now surpasses all other private enterprises in the world.

Born at Reading, Massachusetts, in 1812, he was employed as conductor of the first passenger train that ran in New England, and was afterward promoted to the position of ticket agent on the Boston and Worcester Railway. The sedentary desk-work did not suit him, however, and in 1837 he came to New York in search of more congenial employment. At the corner of Wall and Pearl streets stood the old Tontine Coffee-house, a famous resort for the merchants and ship-owners of those days, and in connection with it there was an admirable news-room—a sort of Lloyd's or Garraway's—conducted by James W. Hale, a local celebrity, who afterward extended his fame by promoting a cheap postal system in opposition to the government. Mr. Hale was a man of varied experience and a genial disposition. He was one of the most active men of his day, and Harnden went to him for advice in seeking employment. Hale became interested in him, and in the course of a few days advised him to establish himself as an expressman between New York and Boston—a business never before transacted and a name never before assumed.

As there have been other claimants to the honor of having originated the enterprise, and as Mr. Hale is still living, I will repeat a statement which he made to me in July last. There was never a day, he said, that inquiries were not made at the news-room for some person going to Boston or Providence. Some wanted to send small parcels to their friends, others letters or circulars;

WILLIAM F. HARNDEN.

but the most frequent applicants were money-brokers, who wanted to forward packages of Eastern bank-notes to Boston for redemption. If an acquaintance was found on the boat, he was pounced upon without ceremony, and burdened with the packages, which were sometimes worth many thousand dollars. But if a friend did not appear, the things were often intrusted to entire strangers, with the modest request that they would deliver them immediately after their arrival. Merchants and brokers seeking gratuitous transportation for their letters contributed largely to the excitement attending the departure of the steamer, and many persons will remember the nights of anxiety they have passed on the Sound, when such unexpected wealth has been temporarily thrust upon them. "When Harnden called upon me for advice," Mr. Hale stated, "I thought of the daily inquiries made at my office, 'Do you know any body going to Boston this evening?' and I immediately advised him to travel between the two cities and do errands for the business men. I also suggested that the new enterprise should be called 'The Express,' which gave the idea of speed, promptitude, and fidelity."

Harnden hesitated for several days, doubting whether the scheme would be profitable, but eventually he decided to try it, and bought the historic traveling-bag, which is still preserved in Boston. A small slate for orders was hung in the news-room, and the patrons of that institution were Harnden's chief patrons. The old merchants had become so accustomed to transportation of smaller articles without cost that they did not readily observe the advantages "the express" offered, and at the end of two months Harnden found all his capital absorbed. His receipts were less than his expenses, and he would have discontinued the service had not some friends procured free passages for him on an opposition steamboat. With the passage-money as a subsidy, "the express" prospered, and the business so increased that Harnden soon engaged an assistant.

Goods were forwarded every evening instead of three times a week, and the carpet-bag was successively multiplied by two and three, until in the flush of prosperity a large trunk was bought, which in turn was substituted by a yet larger one.

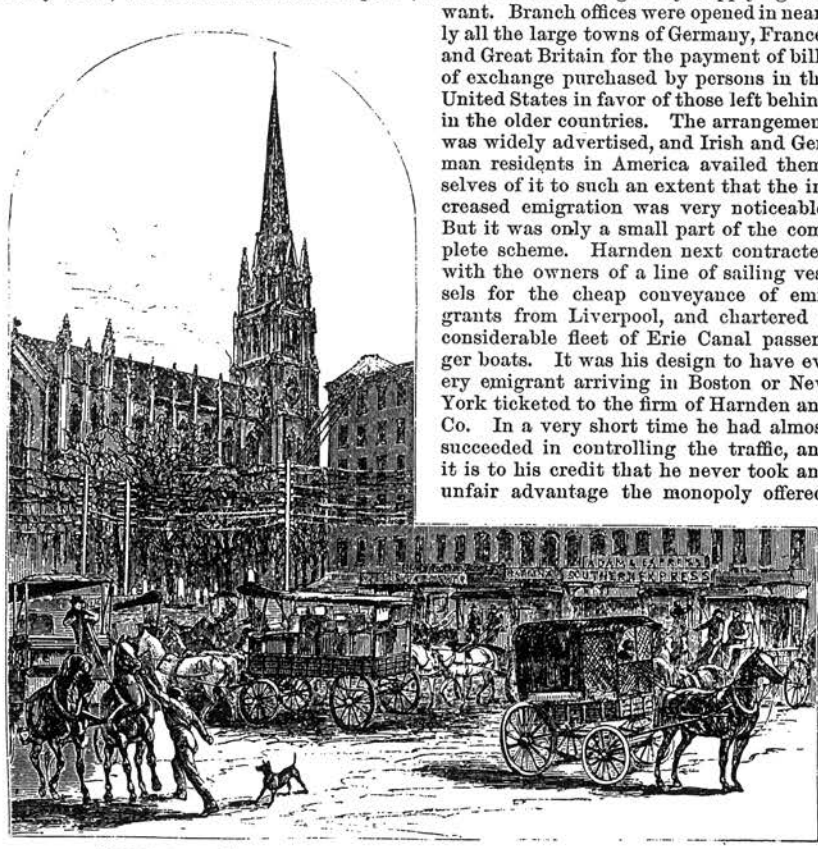
Harnden next disposed of an interest in the concern to his oldest assistant, Dexter Brigham, and opened two offices—one in Boston, which he occupied himself, and the other in New York, which he left in charge of his partner. Two men were hired to follow the goods on the route, and a small hand-car or crate was placed on board each steamer. "The express" had surmounted the worst obstacles, and its utility was clearly demonstrated. The receipts gradually increased, and Harnden's heart beat fast one night as he counted by candle-light in his dusty office the magnificent amount of twenty dollars earned in a single day! But his success was the result of unceasing overwork, which undermined his constitution, and often caused him to say that he would not live to reap the full harvest. A. L. Stimpson, an old expressman, states that his endurance was a subject of wonder to all who knew him, and that it was only by

JAMES W. HALE.

an almost superhuman exertion of will that he sustained his exhausted system and discharged his recurring labors. An indomitable spirit stimulated him, and he bravely encountered the vicissitudes of his business at all times, often against the remonstrances of friends. Among other things, it was his pride to be first in boarding the Cunard steamers to obtain news for the press; and even though the arrival was after midnight, he and his men were invariably on the alert.

It was the opening of the Cunard service between Liverpool and Boston that did most for his express, by which all valuable parcels from Europe for New York were forwarded; and it was the Cunard steamers that aroused the greatest aspirations in his breast. His acquaintances constantly urged him to extend his business westward, and he so far followed their advice as to establish the route between Boston and Albany. He would not go farther in that direction, however, as he thought it a waste of time to court the patronage of the unpopulated prairies. "Put a people there," he said to Henry Wells, who afterward became a principal in the celebrated house of Wells, Fargo, and Co., "and my express shall soon follow." The idea presented to him was retained in his memory, nevertheless, and before long it resolved itself into an extraordinary colonization project. In brief, Harnden decided to make an opening for a lucrative express business in the West by filling it himself with a thrifty people. He was fairly infatuated with the scheme, into which he entered with greater zeal than ever. Night and day it occupied his thoughts. His pale face became a shade paler, and his fragile body a degree thinner under the intense excitement wrought. It seemed to offer princely wealth, unexampled honor and power. All his resources were expended upon it, and in 1841 the "English and Continental Express" was established, with offices in Liverpool, London, and Paris.

Hitherto there had been no organized system of emigration. The emigrants already settled here had no safe and economical means of remitting money to or prepaying the passage of their relations across the water. Harnden began by supplying the want. Branch offices were opened in nearly all the large towns of Germany, France, and Great Britain for the payment of bills of exchange purchased by persons in the United States in favor of those left behind in the older countries. The arrangement was widely advertised, and Irish and German residents in America availed themselves of it to such an extent that the increased emigration was very noticeable. But it was only a small part of the complete scheme. Harnden next contracted with the owners of a line of sailing vessels for the cheap conveyance of emigrants from Liverpool, and chartered a considerable fleet of Erie Canal passenger boats. It was his design to have every emigrant arriving in Boston or New York ticketed to the firm of Harnden and Co. In a very short time he had almost succeeded in controlling the traffic, and it is to his credit that he never took any unfair advantage the monopoly offered.



"MORNING RUN," LEAVING GENERAL OFFICE, NEW CHURCH STREET, NEW YORK CITY.

Those laborers whom he brought here were protected from swindlers in the sea-board cities, and forwarded with as much speed and comfort as possible to the agricultural districts of the West. "Within three years of the inception of the enterprise," writes A. L. Stimpson, to whom we allude for the last time, with thanks for the service he has been to us, "that small-sized, fragile man, whose constitution was now broken down by the consumption which was rapidly measuring the little remnant of life yet left to him, had the satisfaction of knowing that he had been the direct means of bringing from the Old World more than one hundred thousand hard-handed laborers, and depositing them in that now magnificent portion of our country where their work was most wanted for the cultivation of the soil and the construction of railways and canals."

Vast as it was in its operations, the colonization venture did not pay. Harnden was too lavish and magnificent in all his dealings. He paid his employés large salaries, and advertised with the greatest liberality. He understood the value of publicity, and in the earliest days of his career he exerted himself to serve the newspapers. Thanks to Harnden for the prompt delivery of packages were often found in the Boston *Transcript*, with many a kindly word of commendation added. A clerk of his was once told to order ome advertising cards. Harnden afterward inquired from the printer what kind of cards had been chosen, and was informed that the order given by the clerk was for a thousand, white in color, and about the size of his hand.

"His hand!" Harnden exclaimed. "Have them a foot square, five thousand of them, and the color red. If a thing's worth doing at all, it's worth doing thoroughly."

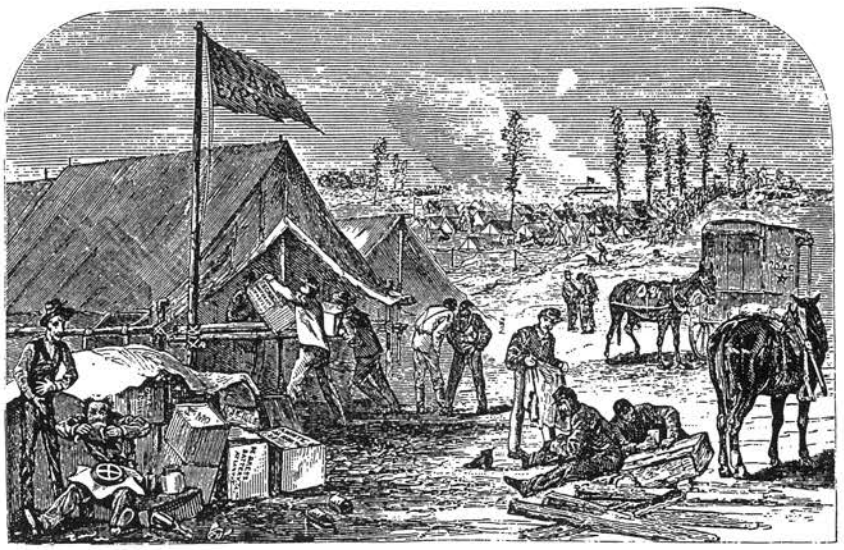
During the winter of 1844 his health failed him completely, and he sought relief in the South. The skill of the best physicians could not save him, and he died on January 14, 1845, a poor man.

The Harnden Express was in its earliest stage when a young Vermonter, Alvin Adams by name, engaged in the produce business at Boston, became much impressed with its utility and prospects. He had little capital and no influential supporters. Health, energy, and industry were his principal possessions. While he was thinking of Harnden's future and wishing that his own were as bright, the little money he had was lost by a sudden fluctuation in the produce market, and he had to begin again at the lowest round of the ladder. He had no taste for his old trade, and he resolved to start an opposition express. It was a difficult task that he had chosen, and for several months there seemed to be no prospect that he would ever make any progress. He was considered an interloper on Harnden's ground, and many persons openly refused to patronize him. Even his own friends "damned him with faint praise," and the partner who joined him at the outset soon retired in despair. He was his own messenger, cashier, clerk, label boy, and porter. All the parcels intrusted to him might have been carried in his hat. A wagon or a horse was not to be thought of, and the entire "establishment" consisted of Adams, a valise, and desk room in an office. The year, too, was a most unfavorable one for all new enterprises, as the mercantile interests of the community were in an inactive and ominous condition. Adams had to encounter, therefore, not only the disadvantages of a poor beginner, but also the antagonism of those with whom he had to deal and the trade depression of an

ALVIN ADAMS.

inauspicious time. For three long years he toiled with little or no encouragement. It is unfair to contrast the two men, perhaps, but we can not help thinking Adams the superior of Harnden in courage and steadfast faith. Several times the latter was disheartened and nearly succumbing, but his rival, whose circumstances were much poorer, never for a moment thought of surrender, and worked with heroic perseverance through thirty-six months of the bitterest experiences. We can think of few other such examples for struggling young men. No doubt he was sustained by his confidence in the worth of his object in life, but that fact redounds still more to his credit.

We have mentioned that Harnden and Co. became so engrossed with the extension



AN ARMY EXPRESS OFFICE.

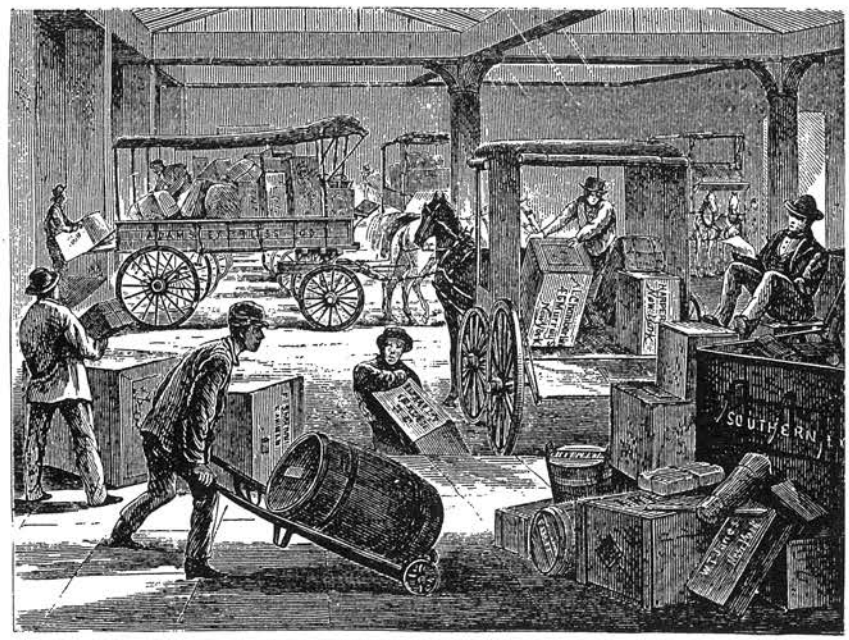
of the emigration venture that the home express was neglected, and Adams thus got a chance that otherwise he might never have had. Parcels were often delayed by the Harnden Express, and after a while some of its best customers began to transfer considerable patronage to Adams. In the mean time the latter had entered into a partnership with Ephraim Farnsworth, who subsequently retired, and was succeeded by William B. Dinsmore, who worked for scarcely enough to pay his board bill, sharing his superior's confidence in the ultimate success of the concern. Adams and Co. then employed two men and a boy, and it was a difficult matter to make both ends meet. The driver of their delivery and collecting wagon was "Old Sam Woodward," formerly a stage-coach driver, who possessed in no ordinary measure that humorous loquacity for which his tribe were famed. In soliciting freight from the merchants he brought all his eloquence to bear, with the greatest success. Seeing a box or parcel at the door of some store waiting for Harnden's Express, he would dismount from his wagon and expatiate on the inestimable benefits of forwarding the goods by the Adams line. "Harnden's got too much to do," was his favorite argument, "and you'd just better give your parcels to us. Just try Adams for once. Adams is a little the nicest man you ever did see, and we have all the facilities for doing your business right up to the handle. Come, let me set these bundles into my wagon, and I'll put 'em through by daylight. Mr. Dinsmore, the partner in New York, is a Boston man (he was made for an expressman), and will see to the delivery of these things himself."

With Sam as a canvasser, and Harnden's business declining, the Adams establishment made extraordinary progress. Instead of desk room, the exclusive use of large and handsome stores was procured. Prodigal displays were made in the way of gas-fixtures, horses, wagons, and office boys. A net-work of minor express routes was absorbed, and all new ones were bought out as soon as they had demonstrated their practicability. First the service was extended to Washington, then between Hartford and Springfield, and afterward throughout the State of Connecticut. Agencies were established at all large stations in South Carolina, Georgia, Alabama, Tennessee, and Louisiana. West, Southwest, and the North were included in the system by giant strides, and in 1850 the business had actually become so important that Adams and Co. arranged to send their money and small packages over the New York and New Haven Railway, paying the sum of seventeen hundred dollars a month for a small space occupied in the car of a fast train. Soon afterward the style of the firm was changed to the "Adams Express Company," and much additional capital was invested, which materially assisted the development of the system.

The California express opened a vein of new wealth, and added greatly to the company's reputation. But the source of its present vast wealth was the immense business during the war of the rebellion. It has been truthfully said that no person unconnected with the company could imagine

the magnitude of its transactions while the States were in conflict. On the nearest and most remote fields the agents of the express were always found, venturing often where a picket-guard would hardly venture, collecting money, letters, and trophies from the soldiers for transmission to "the loved ones at home." Many a thrilling episode might be related of the vicissitudes and perils endured by the expressmen in conveying these articles from the Southern frontier to their destination in the North. Where the armies went they followed with the zeal and pertinacity of newspaper correspondents. No quarters were too hot for them, and neither the shots of the enemy nor the rebuffs of the commanders drove them away. Around bivouac fires in the stillness of Southern forests they were found waiting for the homeward-bound messages that were hastily scribbled on the torn fly-leaves of prayer-books, or even on scraps of newspapers. Many a time in the thick of a battle a faint voice called them to the side of a fallen soldier, with the blood oozing from a death-wound in his breast, and entreated them to remain a moment while he transferred to their care a letter or a locket addressed to a girl in the North. Many a time, too, they saw a noble fellow fall into an eternal sleep before he could finish his message. A romancist might gather suggestions for countless pathetic incidents from the experience of the expressmen who followed the armies during the rebellion. One of the most melancholy duties these brave fellows had to execute was the transmission of the bodies of the slaughtered to their relatives and friends. The delivery at the home office often occasioned heart-breaking scenes, as "somebody's darling," wrapped in a coarse shroud, was presented to the woman who had kissed his handsome face good-by scarcely six months before.

But there was a humorous and joyous aspect to the battle-field express, as to most other concerns of men. It was a favorite habit of the "boys" to send home trophies in the form of "confiscated property." The trophies were of the most heterogeneous character, and sometimes put the expressmen to more trouble than less accommodating servants would have endured. A terrified and howling French poodle was once sent direct from camp to an Eastern farm-house, and, in fact, live stock was very often the form of memento, or, as Mrs. Partington would say, the *momentum*, of a battle. Jew's-harps, Confederate money, old pipes, broken sabres, fractured rifles, tobacco pouches, tarnished epaulets, smeared sashes, and like things, were the commonest and the most portable of the mass forwarded. The habits of thrift in which some of the Down-Easters had been reared were manifested in the care with which old clothes were sent home after a new outfit had been supplied to the regiment. Thousands of boxes containing such worthless rags passed through the express consigned to remote villages



LOADING UP IN THE GENERAL OFFICE, NEW YORK.

COLLECTION AND DELIVERY.

in Maine, Vermont, New Hampshire, and Northern New York. Full charges were collected for them, and when the expectant friends at home tore off the cover, it was only to find a ragged pair of trowsers and a coat. After a regiment had been paid off an immense number of money packages were intrusted to the express, and as the charges were high and the risks small, the profits of the company were magnificent. At one time the stock rose to the enormous price of five hundred dollars a share—the par value being one hundred. Thus had Alvin Adams's little venture with a dollar carpet-bag grown into a concern which made him and his partners millionaires.

After Harnden's death his emigration business was continued by Dexter Brigham, Jun., Robert Osgood, J. C. Kendall, and John W. Fenno. The New York and Boston Express, which had fallen into other hands in the mean time, retained its old name, and until 1860 it extended its branches almost as rapidly as the Adams; but it has since been merged into that concern, and is now a mere tributary. Harnden on his death-bed exclaimed that all he desired to live for was to see his foreign enterprise established on a permanent basis. Very soon after his interment the whole work fell to the ground. His successors were crippled by an unfortunate investment in a line of steam-ships, and failed for a very large amount.

The only formidable opponent of the Adams Express Company existing at present is the American. Nearly all the other organizations are subordinate to these two, which are said to control the entire business. The growth of the American Express Company illustrates the pluck, energy, and perseverance of its founders, who were similar in these things to Adams and Harnden. In 1841 Henry Wells was agent of the latter at Albany, and urged his employer to penetrate the Western country with the express. Harnden made the answer that we have already quoted: "Put a people there, and my express shall follow." Wells was so confident, however, that the population was sufficiently numerous to support an express that he mentioned his idea to George Pomeroy, who was favorably impressed with it, and lost no time in putting it into effect. An express was accordingly started between Albany and Buffalo, Pomeroy acting as his own messenger, clerk, and boy, as Adams and Harnden had done before. But for some reason of which we are not informed he broke down after making three trips, and the business was suspended until Wells and Crawford Livingston offered to join him. Under the new firm the express was established upon an enduring foundation. A trip was made once a week, and occupied three days and four nights, which was the quickest time then on record. From Albany to Auburn the railroad was used, then the stage-coach, and afterward a private conveyance. Wells, who had left Harnden, was appointed messenger, and while he acted in that capacity he never missed a trip. In the course of two years the traffic had so largely increased that daily trips were necessary, and a branch express was established

HENRY WELLS.

between Albany and New York. But the business was still small, and could be accommodated in the trunk which Wells carried with him on the outside of the Buffalo coach.

One day, when the style of the firm had been changed to Livingston, Wells, and Co., Mr. Wells came into the office with a shrewd idea, which gave the concern an important impetus in its march toward prosperity. It was the year previous to the reduction of letter postage by an act of Congress, and the Post-office was supporting some sixteen thousand politicians as postmasters by charging the outrageous price of twenty-five cents on every letter sent from Buffalo to New York. Wells's idea was to start an opposition, not in indignation meetings or in petitions, but in actual traffic. And in several columns of neat little figures he showed his partners how a letter could be carried for six cents at a handsome profit. It happened that those associated with Wells were just such clear-headed, enterprising fellows as himself, and they took hold of the project in a spirit of determination. When the express post-office was first opened, and stamps were sold at the rate of twenty for a dollar, the greatest interest was excited in the undertaking. Public meetings were called, and resolutions passed by the merchants and citizens generally not to send or receive letters by mail to or from any points included by the express until there was a reduction in the United States postage. Immense numbers of letters were sent through Livingston, Wells, and Co.'s hands, and the profits were greater than those derived from the conveyance of parcels. The government used every means to suppress the firm, and the messengers were arrested daily at the instance of the Post-office officials; but in every instance citizens stood ready with bail-bonds filled out and executed. Many stirring scenes were enacted. Officers were on the track at every point, and sometimes fierce affrays occurred. The expressman on horseback, with his mail-bag strapped across his broad shoulders, galloped many a hot mile across the rough country with a couple of angry pursuers at his heels. But

PURSUIT OF EXPRESS MAIL-CARRIER.

JOHN BUTTERFIELD.

the officers were discomfited throughout the strife, and after a futile contest with the opposition, the government began to think of looking for a remedy.

Mr. Wells, in behalf of himself and several wealthy merchants, offered to carry all the mail matter of the United States at an average rate of five cents per letter. The proposition was peremptorily rejected; but the opposition, in which James W. Hale had joined, was so resolute and so generally sustained by the people that during the next session of Congress a law was passed reducing the rate of postage three-fourths. As soon as the reform was accomplished, Hale, Wells, and others retired from the field, and again devoted themselves to the express.

In 1845 the firm of Livingston, Wells, and Co. had received a valuable acquisition in the services of William G. Fargo, who was chosen as a suitable man to extend the express into the country west of Buffalo, and Fargo did not disappoint his employers. He worked with extraordinary force, and in the course of a few years express wagons were traveling at regular intervals between the East, Cincinnati, Chicago, and St. Louis. Several changes occurred during the next few years in the style and the constituency of the original firm, and in 1850 it was represented by Wells and Co., Livingston and Fargo, and Butterfield, Wasson, and Co., who were opposed to each other. The principal of the latter firm was a man of wealth. He had been a stage-coach driver when a young man, and had risen to be owner of nearly all the stage lines running in Western New York. In 1849 he was engaged in transporting freight across the Isthmus of Panama. He was also projector of the Morse Telegraph line between Buffalo and New York, and he not only built it, but also put it into successful operation. Enlisting others with him, he founded a line of Lake Ontario and St. Lawrence steamers, and in 1849 he formed the express company of Butterfield, Wasson, and Co. We suppose he may claim to be founder of the American Express Company, for in 1850 he approached Henry Wells with the acceptable proposition that the three firms should be consolidated under that title. No time was lost in consummating the necessary arrangements, and the Adams Express Company then found a rival which has advanced with it step by step, and is now one of the wealthiest corporations in America.

About a year later the celebrated California express of Wells, Fargo, and Co. was founded by several gentlemen connected with the American Company. Its growth exceeded that of the earlier expresses in brilliancy, and most of the local express lines were bought out in a short time. In 1857 $59,884,000 in gold were transported over their lines in California alone. Henry Wells, you will remember, started life as one of Harnden's messengers, and William G. Fargo rose from an equally humble position. If these glimpses of the history of the express system have no other merit, we may hope, at least, that they offer encouraging examples to the young.

"Overland to California in thirteen days." This was the next and greatest achievement of the express, and excited scarcely less interest than the Pacific Railroad itself. In 1858 or 1859 a company was formed in Cal-

WILLIAM G. FARGO.

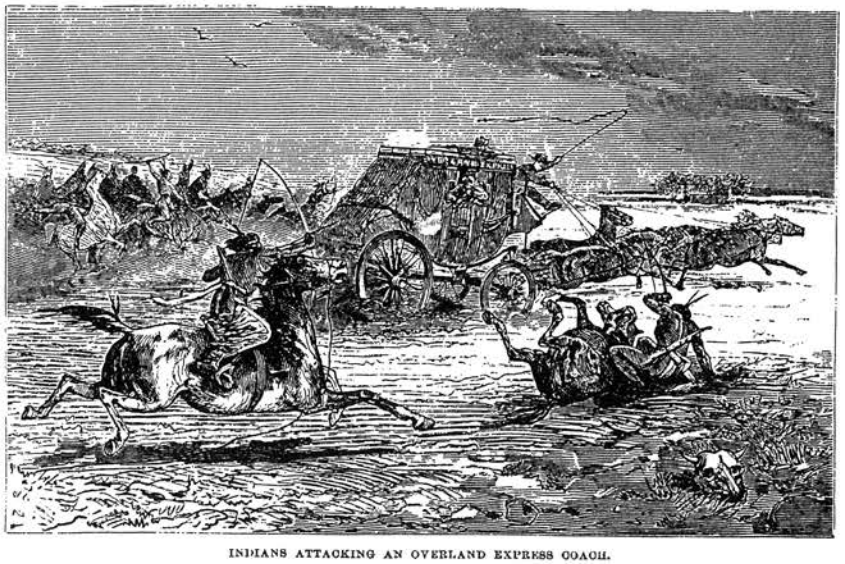
ifornia under the name of the Central Overland California and Pike's Peak Express, a title fit to arrest the attention of the world. The president and the originator, we believe, was Mr. William H. Russell, and the stockholders were mostly Californians. It was an audacious speculation, but it offered as many advantages to the mercantile community as the Atlantic cable, and was hailed with as much satisfaction. No telegraph had linked the two oceans, and the stage-coach or the steamer was the only vehicle by which a message or letter could be sent. The new service consisted of a pony express, with stations sixty miles apart, across the continent. A large capital was necessary, and the risks assumed were sufficient to frighten away all but the daring Western speculators. The rate fixed was five dollars in gold per quarter ounce, which, of course, limited the matter carried to business letters. The eastern terminus of the route was St. Joseph, Missouri, and the western terminus Sacramento. From the latter town to San Francisco the messengers traveled by steamboat, and from St. Joseph to New York by railroad. The time occupied between ocean and ocean was fourteen days, and between St. Joseph and San Francisco ten days, as per the following time-table:

From St. Joseph to			Marysville.....	12 hours.
"	"	"	Fort Kearney	34 "
"	"	"	Laramie	80 "
"	"	"	Fort Bridger.....	108 "
"	"	"	Salt Lake	124 "
"	"	"	Camp Floyd	128 "
"	"	"	Carson City.....	188 "
"	"	"	Placerville	226 "
"	"	"	Sacramento..... .	232 "
"	"	"	San Francisco	240 "

The express was dispatched weekly from each side with not more than ten pounds of matter. The riders chosen were selected from plains-men, trappers, and scouts, familiar with the Indians, and capable of great bodily endurance. In consideration of the danger to which they were exposed, their salary was fixed at the enviable amount of $1200 a month each. The ponies were swift and strong, a cross in breed between the American horse and the Indian pony. Messengers and steeds were run sixty miles, and then awaited the arrival of the express from the opposite direction.

Such was the plan of the Central Overland California and Pike's Peak Express Company; and on a memorable day, the 3d of April, 1860, the first messenger was to start from St. Joseph. The *Daily Gazette* of that town issued a "Pony Express Extra" in honor of the occasion. It was a small single sheet, printed on one side only, and the first two columns were devoted to a heavily leaded account of the new enterprise, with this greeting to the press of California:

"Through the politeness of the express company we are permitted to forward by the first pony express the first and only newspaper which goes out, and which will be the first newspaper ever transmitted to California in eight days. The first pony will start at precisely five o'clock this afternoon, and letters will be received from all points up to 4.30. A special train will be run over the Hannibal and St. Joseph Railroad for the purpose of bringing the through messenger from New York. The nature of the conveyance necessarily precludes our making up an edition of any considerable weight. It, however, contains a summary of the latest news received here by telegraph for some days past from all parts of the Union. We send in it greeting to our brethren of the press in California."



INDIANS ATTACKING AN OVERLAND EXPRESS COACH.

In a cloud of dust, and amidst the loud cheers of the population, the messenger galloped through the straggling streets on to the broad prairies reaching beyond the horizon. The route chosen was somewhat north of the present track of the Pacific Railroad. It lay, as the time-table shows, from St. Joseph to Laramie, thence up the Sweet Water to Salt Lake, and down the Humboldt to Sacramento. Night and day the express went forward at the greatest speed attainable with ordinary horseflesh. As soon as a station was reached, one messenger, without waiting to dismount, tossed his bag to another already mounted, who in a few minutes was out of sight in the direction of the next relay. So for eight days, with fresh horses and messengers every sixty miles, the ride was continued through the awful cañons of the mother range, up the bowlder-strewn foot-hills, between forests of hemlock, pine, and fir, through hot little mining towns, until Sacramento was reached, scarcely a minute behind the prescribed time.

The pony express fulfilled its promises for two years. The messengers were often followed by hostile Indians, and several were killed. In addition to their letter-bag they only carried one revolver and a bowie-knife. They ran and fought at the same time, and many a red-skin kissed the dust in atonement for those messengers who were slaughtered.

At the end of two years, in 1862, the telegraph line across the continent had been completed, and there was no longer any use for the pony express. The company was dissolved, having lost $200,000 in its courageous enterprise.

The Central Overland was the only important pony express that maintained itself in America. Goods and passengers had been sent to California by stage-coaches, in the free use of which Wells, Fargo, and Co. extended their reputation, although they forwarded the bulk of the matter by steamer *via* the Isthmus. The Overland Mail Company was started in 1858, and contracted with the United States government to carry a monthly mail from San Francisco to the Missouri River in consideration of $650,000 paid annually. John Butterfield was president, associated with William G. Fargo, William B. Dinsmore, and others. The route chosen was known as the Ox Bow, and came East by the way of Santa Fé; but in 1860 the Indians were so troublesome that the route of the pony express was adopted. Opposition lines were started, and the mail was afterward sent daily, in consideration of $1,000,000 annually. Ultimately, however, the firm of Wells, Fargo, and Co. bought out the entire business, and was changed into a corporation, with a capital of $15,000,000.

A mere summary of the adventures of the overland mail-coaches would more than fill the whole space allotted to this article. We have before us, for instance, a curious pamphlet setting forth the claims of Benjamin Holladay on the United States government for loss suffered through the raids of Indians during the time he was employed as a transcontinental mail carrier. It contains fifty-nine large pages of terse affidavits, each describing an encounter with the savages, and the best we can do, by the way of illustration, is to briefly quote from three of them. In the first the affiant is Richard Murray, a driver in the Territory of Utah:

"Affiant states that he was passing from Split Rock Station west to Three Crossings of Sweet Water with the United States mails on the said 17th day of April, A.D. 1862, in company with eight other men, all of the mail party; that they were attacked by a band of Indians numbering thirty or more, who commenced a furious fire upon them with rifles and bows and arrows; that resistance was made by said mail party for hours, when the Indians retreated. Affiant further states that six men out of the nine who composed said party were wounded, one with arrows and five with guns."

The second affiant from whom we shall quote is Lemuel Flowers, a district agent:

"Affiant says that on the 17th of the same month [April, 1862] the Indians attacked a party of nine men running two coaches, and commenced a furious fire upon them, wounding six men, including this affiant, whose body was penetrated by two rifle-balls; that after a resistance of four hours the Indians captured nine head of mules, nine sets of harness, and partially destroyed two coaches."

The third affiant, who has the worst tale to tell, is George H. Carlyle:

"On the 9th of August, 1864, I left Alkali Station for Fort Kearney. On reaching Cottonwood Springs I learned by telegraph that the Indians had attacked a train of eleven wagons at Plum Creek, killed eleven men, captured one woman, and run off with the stock. Upon hearing this I started down the road, and when a few hundred yards off Gillman's Station I saw the bodies of three men lying on the ground, fearfully mutilated and full of arrows. At Plum Creek I saw the bodies of the eleven other men whom the Indians had murdered, and I helped to bury them. I also saw the fragments of the wagons still burning, and the dead body of another man, who was killed by the Indians at Smith's Ranch, and the ruins of the ranch, which had been burned."

The language of the affidavits is not dramatic, and the reader must use his imagination a little in order to realize the sufferings and heroism of those who traveled across the plains twelve years ago.

When the line *via* the Isthmus of Panama was started, the express matter was forwarded by through messengers from New York to San Francisco. The route was from the metropolis to Aspinwall, thence up the Chagres River, and by portage to the Pacific. Immense wealth was intrusted to the messengers, among whom there were many picturesque characters—picturesque both in person and manners. They usually wore loose blue shirts, trowsers tucked into capacious boots, slouch hats, and numerous weapons of defense. They guarded their treasure

EXPRESS MESSENGER, VIA ISTHMUS OF PANAMA.

with the utmost vigilance, and we believe never lost a single ounce of the tons of gold-dust which were at one time intrusted to them.

In 1852 another use was found for the express in the transfer of the baggage of travelers from the railroads and steamboats to their residences. Warren Studley started the system in New York, with an office in Manhattan Alley. It abated the hackney-coach nuisance, and also proved to be very successful from a pecuniary point of view. Similar expresses were soon afterward established in all other large cities, and Studley's was absorbed by Mr. Dodd, who has made it one of the famous institutions of New York. Hiram Studley, a brother of Warren, was the first man to carry a passenger across the city in a transfer coach—another improvement and extension of the express system—and for several days he was in danger of assassination by the irate "cabbies," who foresaw the injury it would do their business.

We have now only to glance at the present "carpet-bag" of the Adams and American Express companies. A credible authority informs us that it is an ordinary occurrence for the Adams Express Company to carry merchandise and "valuables" worth twenty million dollars in a single day. The United States Treasury intrusts to it the carriage of all bank-notes and specie; and with the American it transacts a greater exchange and banking business by the transfer of money than all the private bankers put together. The dividends paid on the capital stock are enormous, and have made millionaires out of men who started with the express in the capacity of office boys and messengers. Scarcely forty years ago John Hoey was engaged by Alvin Adams as a small boy in general, and his duties consisted of running errands, pasting labels on merchandise, and so forth. The same boy is now one of the wealthy men of the metropolis, and until recently was an active superintendent of the concern. We might mention at least fifty similar instances. Mr. Adams remains at the head of the Boston office, giving the service his constant attention, assisted by his sons Waldo and Edwin.

The two great companies employ nearly eight thousand men, one thousand five hundred horses, twelve hundred wagons, and three thousand iron safes. They travel over a hundred thousand miles daily, or over thirty-two million miles yearly! Scarcely a railway train runs on any road that has not a special car attached devoted to the business of the express, and no inhabited part of the country has been left unpenetrated. Wherever there is a station and a few dozen people, there is also an express office which is in communication with a thousand others spread throughout the Union. The system extends as far north as Oregon, as far west as California, as far south as Texas, and as far east as Canada. It is the most important agent of communication between the producer and the consumer, and they could no more dispense with it than with the Post-office or the banks.

In all our streets, on all our wharves, the strong and handsome wagons of our express companies, drawn by powerful horses, are seen loaded high with merchandise on every working day. In order to understand the extent to which they are patronized, we have only to look at the large cards exhibited outside the warehouse doors, bearing on them the names of the different expresses—the United States, National, American, or Adams. Each wagon has a district which it perambulates three times a day for the purpose of collecting goods to be forwarded, and the card indicates which express is wanted. The bulkiest and the most delicate articles, jewelry and watches, mowing machines and steam-plows, are alike intrusted to the same vehicle and pass through the same careful hands. The extreme care bestowed upon all things is one of the chief reasons why the express is so popular. Sometimes there is occasion for fault-finding, to be sure, but considering the immense quantity of merchandise transported, it is surprising how little is damaged in transit. An accident which occurred to a valuable article in charge of an expressman is said to have given rise to one of our most classical

expressions. A bonnet was forwarded from one of our city milliners to a lady in the country, and when the box was delivered, it was evident that some one had been attempting to walk through it. The expressman stammered an apology as he presented it to the lady. "Oh yes, I understand," the fair dame exclaimed; "you've put your foot into it, and that's what's the matter!"

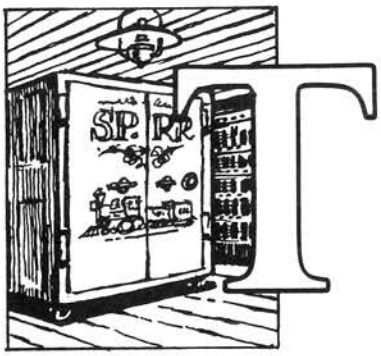
The C. O. D. system of the express is one of the greatest conveniences ever conferred on the mercantile community, but it has been largely used by swindlers, who have found in it a ready means of alluring the foolish. The imitation-greenback-sawdust rascals have caught not a few verdant countrymen by the pretense of honesty in dealing which the C. O. D. plan affords.

One of the most stirring occasions in the routine of express duties is the sale by auction of the "old hoss," or unclaimed freight which accumulates from time to time. When every possible method to find the owners has been tried and has failed, an auctioneer is called in and the articles are sold to defray expenses. No package is allowed to be opened or examined until it has been purchased, and a spirit of speculation is thus excited in those who assemble. Small carefully sealed packages bring the highest prices, on the supposition that they may contain jewelry. An avaricious old customer once paid ten dollars for a neat little brown paper parcel sealed with evident care at both ends. It contained a hundred or more "rejected addresses" from a swain to "the fair sun of all her sex." Another similar parcel was knocked down to a bidder for eight dollars, and was found to contain a set of false teeth. Patent medicines, whisky (a still more patent medicine), toys, old clothes, surgical instruments, disinfectants, preserved animals, old magazines, false hair, and many stranger things are usually found among the "old hoss" packages. It may be assumed that most of them are of small value, as we have said, inasmuch as either the sender or the consignee of valuables would take care to have a thorough search made for any valuable property.

AUCTION SALE OF UNCLAIMED PARCELS.

Charles Crocker to Collis P. Huntington July 13, 1883

a contribution from DAVID F. MYRICK



THE NAME "Crocker" is well known throughout California because of the banking chain, and to historians it is also recognized as an active member of the Big Four, the builders of the Central Pacific Rail Road. The connection is positive, for Charles Crocker (1822-1888) participated in both ventures. Crocker's letter of Friday, July 13, 1883, to Collis P. Huntington reveals some background data.

The Big Four, whose Herculean efforts pushed railroads all over the West to change its life style, consisted of Collis P. Huntington, Leland Stanford, Charles Crocker and Mark Hopkins. Huntington and Hopkins were engaged in the mercantile trade, and when Hopkins died in 1879, Huntington lost a good friend. While his relations with Stanford were cordial, there was friction between Huntington and Crocker.

Charles' brother, Judge E.B. Crocker, played an important role in the formative years of the Central Pacific; later on, Charles F. "Col. Fred" Crocker, Charles' eldest son, was a top officer of the Southern Pacific Railroad during its expansion.

As indicated in the reproduced letter, Charles placed his youngest son, William H. Crocker, in the banking business. Just a few weeks before this letter, Crocker-Woolworth & Co. was formed on June 3, 1883 as a private bank with

capital of $500,000. R.C. Woolworth had been president of the First National Gold Bank of San Francisco, and just what conditions prevailed to induce Woolworth to leave the top position in a well-established bank are a mystery.

The new firm became The Crocker-Woolworth National Bank of San Francisco in 1886 and, after Woolworth died in 1893, William H. Crocker became president, a post he held until 1936. During this time the bank went through several name changes: In 1906 it became The Crocker National Bank of San Francisco and at the end of 1925, after a consolidation with Woolworth's earlier bank, it was called the Crocker First National Bank of San Francisco.

Upon receipt of Charles Crocker's letter, Huntington parried for a day or two before dictating his reply of July 24. Once he understood that George Crocker was to *learn* rather than *direct* the business, his attitude changed. "When I received the printed notice of his appointment...I confess I did not like it. I assure you that your explanation satisfies me and I am glad to say, moreover, that I know of no other young men that I can think of better qualified naturally to do well whatever they undertake than your sons. Certainly, Fred has developed into a very excellent man..."

Referring to the appointment, Huntington did observe that it would have helped had Crocker mentioned it to him as he did to the others but, in his conciliatory and cordial tone, he said: "Allow me to say that it is quite satisfactory that George is given the position in order to learn the details of operating a railroad..."

Huntington observed that he had no sons of his own so felt this was an appropriate move. However, even with the delayed blessing, George's railroad career left no spectacular traces; in later years he represented the Crocker interests in the Pacific Improvement Company, the private, non-railroad investment company of Stanford, Hopkins, Huntington and Crocker. As to the banking son, his firm did well and his son, William W. Crocker, followed in his father's footsteps. He also participated in the renewed association of the family name with Southern Pacific; from 1941 until 1964 he was a member of the Board of Directors – something that wily old Collis probably did not anticipate.

David F. Myrick

Southern Pacific Railroad Co.

Executive Department,

Corner Fourth and Townsend Streets,

San Francisco, July 13" 1883.

Mr. C.P. Huntington
New York City.
Dear Sir.

Your No. 138 of July 5th is before me. You say that you notice my son George has been appointed Assistant Superintendent and that you can think of no

San Francisco July 13, 1883

Mr. C.P. Huntington
New York City
Dear Sir

Your No. 138 of July 5th is before me. You say that you notice my son George has been appointed Assistant Superintendent, and that you can think of no other reason why he should have been appointed, except that he is my son. This is all true. He would not have been appointed, except that he is my son. I think however you have mistaken the character of the appointment. He is not a full fledged Assistant Superintendent, but as you may say, a Second Ass't. Supt., and I put him there after a conversation with Stanford just before he left, in which he urged me to do it. He has certain duties assigned to him to perform and of course has the run of the business and is learning it. I put him there for the purpose of educating him to be a railroad man in order that he may be capable of taking some of my railroad interests & managing them for his own benefit, and for that matter, for the benefit of all concerned. I think as Governor Stanford does that if you had two sons & they were competent or considered to become learned in the business of railroading & to succeed you in this business, that it would be better than to have strangers and hired men to do it.

I am very glad that you have written this letter as it has given me an opportunity to talk plainly to you. I am 61 years of age, and now retain my railroad interests for no other purpose than for the benefit of my boys. If they could not succeed me in the railroad, I would not remain any longer in the business than was necessary to sell out to advantage. If it is unpleasant for you to have my boys in the railroad service, I hope you will express it now fully and freely and they shall leave it immediately. I do not expect them to have anything to do with any railroad business that they cannot do as well as anyone else can do it.

There has been no salary fixed to the appointment of my son George as yet, and it is not understood that he is to have much of salary. He is there to learn the business. He has for several years, I may say, been in the employ of the Company, but I have paid him out of my own purse as he had no stated position and no particular work to do. I am convinced that he never will amount to anything unless he has some responsibility and something to do & that was my object in putting him where he now is. I had a long, full and free talk with Mr. Towne about the matter before he was appointed, and I understood him to approve of my proposal.

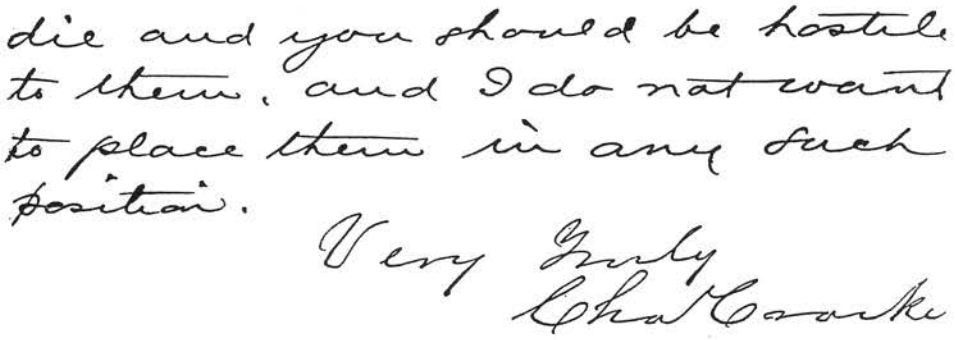
Now I wish an answer to this letter from you in the spirit in which I write it. If you do not wish my boys to be employed by and have an interest in the railroad Cos., say so frankly, and they will leave the day I receive your disapproval. I do not want to quarrel with you in my old age nor do I want to force my boys upon you or upon your interests. I have been informed several times of your having expressed yourself that there was *"too much Crocker"* here, and for that very reason have kept George back until I had that conversation with Governor Stanford in New York when he urged me to put George where he is now. I was contemplating the withdrawal of a large portion of my capital in order to start my son George in some other business because of your suspected hostility toward him. I would have preferred that my youngest son William should have been employed in some capacity by the Railroad Co., but for the same reason I established him in the banking business. I intend to have my boys all established in some permanent business before I die. I do not intend to make toys or loafers of them and am well satisfied in (the) truth (in) the adage, "the devil finds work for idle hands to do."

My instructions to Mr. Fillmore have been that he is to pay George for *what he earned* but I want him to have responsible duties to perform and that he was to oversee him and see that he performed them well, and if he proved incompetent and could not be made a thorough railroad man, to let me know at once, and before he wasted much time in the endeavor.

Now Mr. Huntington, I want no concealments from you, and no covert antagonisms upon your part toward my boys. If you are opposed to their

employment by the Company, I want you to say so frankly as I have asked you in the commencement of this letter. I know they would have up hill work if I should die and you should be hostile to them and I do not want to place them in any such position.

Very truly
Chas. Crocker



The opening and closing of the original Crocker to Huntington letter from the Archives of The Mariner's Museum, Newport News, Virginia. This and the text of the letter are reproduced with the permission of The Mariners Museum, Newport News, Virginia.

In a Baggage-room.

California: How to Get There and What to See by the Way

by CHARLES NORDHOFF

ALIFORNIA, How to Get There and What to See, originally appeared in *Harper's New Monthly Magazine* in April 1872. This was less than half a decade from the day the Pacific Railroad – the combined transcontinental routes of the Central Pacific Railroad and the Union Pacific Railroad – had been completed. And even less time since the line had actually been opened to passenger traffic.

The author, Charles Nordhoff, was originally a New York City newspaperman. He made one of the early trips on the transcontinental railroad which led to this article. He wrote much more on California, its joys, glories and wonders, for the rest of his life. Although he was a newspaper writer and a California "booster" in the true sense, he got his facts pretty straight, and it is a first hand account.

K.F.S. Jr., EDITOR

CALIFORNIA.

I.—HOW TO GO THERE, AND WHAT TO SEE BY THE WAY.

By CHARLES NORDHOFF.

VIEW FROM THE CLIFF HOUSE, SAN FRANCISCO.

THOUGH California has been celebrated in books, newspapers, and magazines for more than twenty years, it is really almost as little known to the tourist—a creature who ought to know it thoroughly, to his own delight—as it was to Swift when he wrote, in his description of the flying island of Laputa, "The continent of which this kingdom is a part extends itself, as I have reason to believe, eastward to that unknown tract of America westward of California, and north to the Pacific Ocean, which is not above a hundred and fifty miles from Logado," and so on.

California is to us Eastern people still a land of big beets and pumpkins, of rough miners, of pistols, bowie-knives, abundant fruit, green wines, high prices—full of discomforts, and abounding in dangers to the peaceful traveler. A New Yorker, inefficient except in his own business, looking to the government, municipal, State, or Federal, for almost every thing except his daily dollars; overridden by a semi-barbarous foreign pop-

ulation; troubled with incapable servants, private as well as public; subject to daily rudeness from car-drivers and others who ought to be civil; rolled helplessly and tediously down town to his business in a lumbering omnibus; exposed to inconveniences, to dirty streets, bad gas, beggars, loss of time through improper conveyances; to high taxes, theft, and all kinds of public wrong, year in and year out—the New Yorker fondly imagines himself to be living at the centre of civilization, and pities the unlucky friend who is "going to California." He invites him to dine before he sets out, "because you will not get a good dinner again till you return, you know." He sends him, with his parting blessing, a heavy navy revolver, and shudders at the annoyances and dangers which his friend, out of a rash and venturesome disposition, is about to undergo.

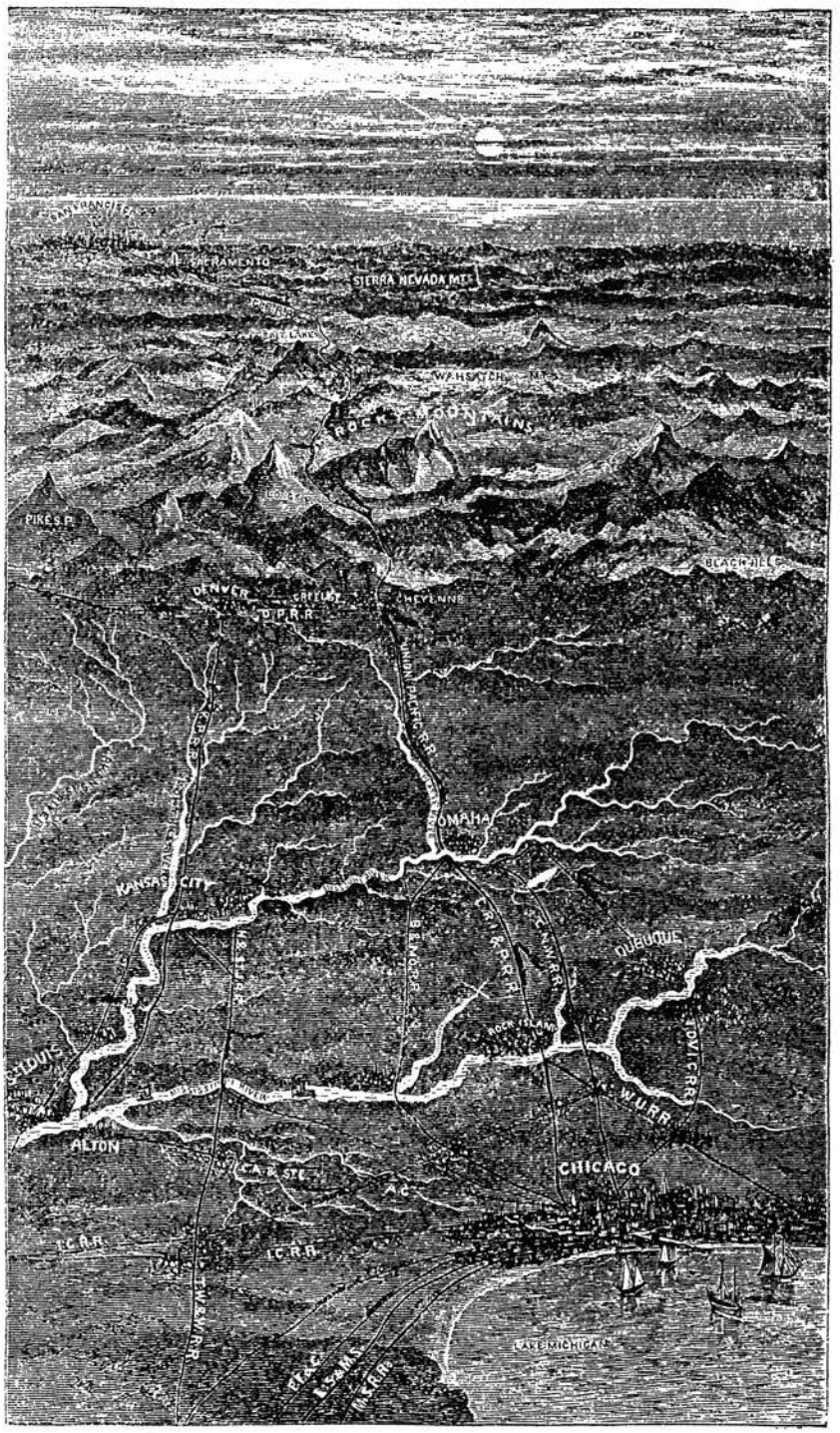
Well, the New Yorker is mistaken. There are no dangers to travelers on the beaten track in California; there are no inconveniences which a child or a tenderly reared woman would not laugh at; they dine in San Francisco rather better, and with quite as much form and a more elegant and perfect service, than in New York; the San Francisco hotels are the best in the world; the noble art of cooking is better understood in California than any where else where I have eaten; the bread is far better, the variety of food is greater; the persons with whom a tourist comes in contact, and upon whom his comfort and pleasures so greatly depend, are more uniformly civil, obliging, honest, and intelligent than they are any where in this country, or, so far as I know, in Europe; the pleasure-roads in the neighborhood of San Francisco are unequaled any where; the common country roads are kept in far better order than any where in the Eastern States; and when you have spent half a dozen weeks in the State, you will perhaps return with a notion that New York is the true frontier land, and that you have nowhere in the United States seen so complete a civilization—in all material points, at least—as you found in California.

If this seems incredible to what out there they call an Eastern person, let him reflect for a moment upon the fact that New York receives a constant supply of the rudest, least civilized European populations; that of the immigrants landed at Castle Garden the neediest, the least thrifty and energetic, and the most vicious remain in New York, while the ablest and most valuable fly rapidly westward; and that, besides this, New York has necessarily a large population of native adventurers; while, on the other hand, California has a settled and permanent population of doubly picked men.

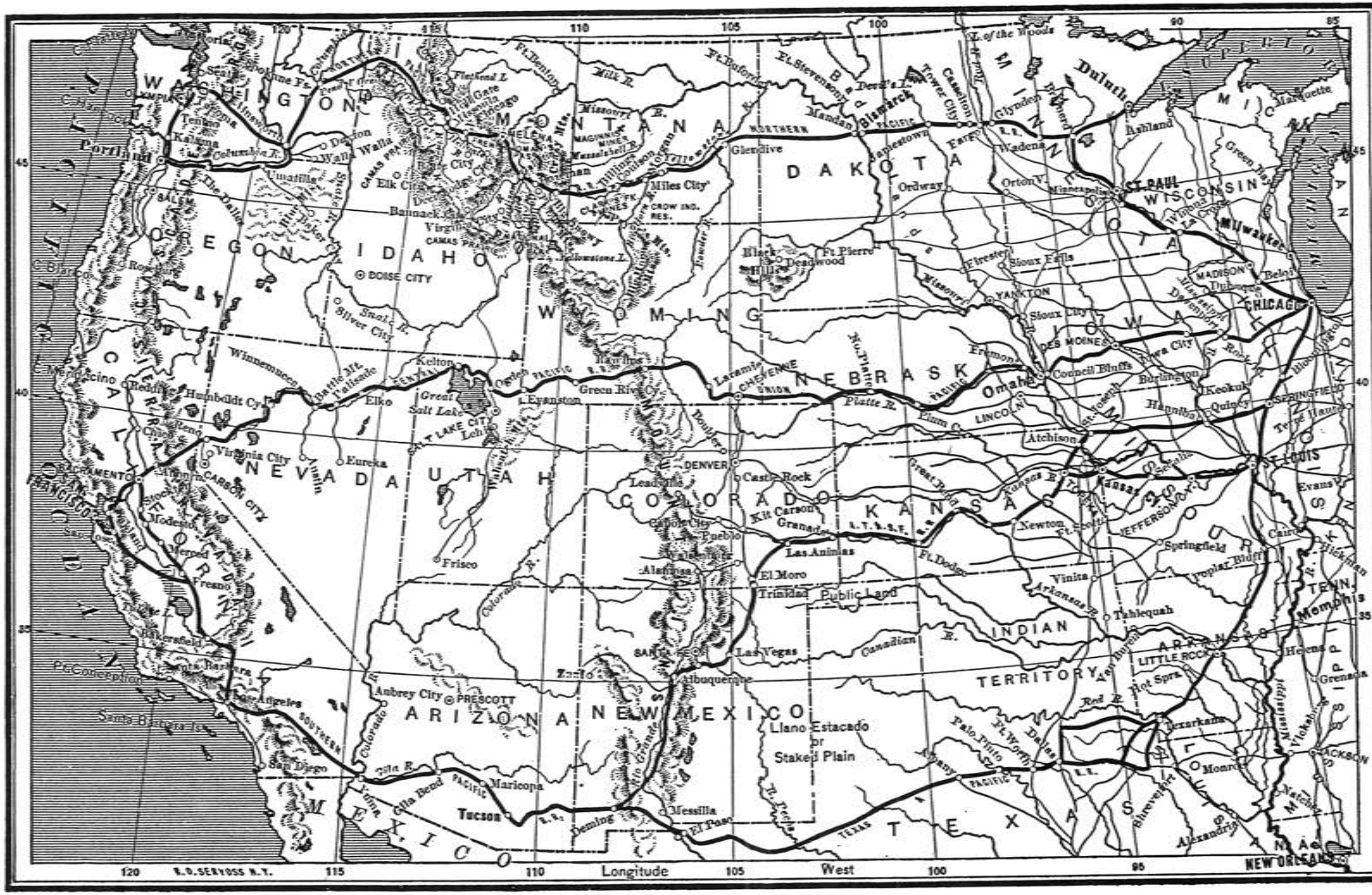
"When the gold was discovered," said a Californian to whom I had expressed my wonder at the admirable *quality* of the State's population, "wherever an Eastern family had three or four boys, the ablest, the most energetic one, came hither. Of that great multitude of picked men, again, the weakly broke down under the strain; they died of disease or bad whisky, or they returned home. The remainder you see here, and you ought not to wonder that they are above your Eastern average in intelligence, energy, and thrift. Moreover, you are to remember that, contrary to the commonly received belief, California has a more settled population than almost any State in the Union. It does not change; our people can not move west, and very few of them remove back to the East. What we have we keep, and almost all, except the Chinese, have a permanent interest in the State. Finally," added this old miner, who is now a banker, and whom you could not tell from a New Yorker, either in his dress or the tones of his voice, or in the manner in which he transacts business, and who yet has not been "home," as he calls it, for seventeen years—"finally, you must remember that of our immigrants who came from China, not a single one, so far as is known, but knew how to read, write, and keep at least his own accounts on his own abacus when he passed the Golden Gate. We are not saints out here, but I believe we have much less of a frontier population than you in New York." And my experience persuades me that he was right.

Certainly in no part of the continent is pleasure-traveling so exquisite and unalloyed a pleasure as in California. Not only are the sights grand, wonderful, and surprising in the highest degree, but the climate is exhilarating and favorable to an active life; the weather is so certain that you need not lose a day, and may lay out your whole tour in the State without reference to rainy days, unless it is in the rainy season; the roads are surprisingly good, the country inns are clean, the beds good, the food abundant and almost always well cooked, and the charge moderate; and the journey by rail from New York to San Francisco, which costs no more than the steamer fare to London, and is shorter than a voyage across the Atlantic, is in itself delightful as well as instructive. Probably twenty Americans go to Europe for one who goes to California; yet no American who has not seen the plains, the Rocky Mountains, the Great Salt Lake, and the wonders of California can honestly say that he has seen his own country, or that he even has an intelligent idea of its greatness. It is of this journey from New York to San Francisco that I wish to give here such an accurate and detailed account as will, I hope, tempt many who contemplate a European tour to turn their faces westward rather, sure that this way lies the most real pleasure.

The regular route runs from New York, by way of Philadelphia and Pittsburg, to



BIRD'S-EYE VIEW OF THE PACIFIC RAILROAD, FROM CHICAGO TO SAN FRANCISCO.



THE WESTERN STATES AND THE TERRITORIES OF THE UNITED STATES. SCALE, 250 MILES TO THE INCH.

from Century Magazine, September 1882

Chicago—this is called the Pittsburg and Fort Wayne road—thence to Omaha, either by the Chicago, Burlington, and Quincy, the Chicago and Northwestern, or the Chicago and Rock Island. At Omaha you take the Union Pacific road to Ogden, and thence the Central Pacific to San Francisco. If you wish to see Colorado on your way out, you may go also from Chicago to Denver, over the Chicago, Burlington, and Missouri and the Kansas Pacific roads; and at Denver you have your choice of diversions in Colorado, with Mr. Bowles's admirable book, the "Switzerland of America," to show you the way. When you are done you pass from Denver to Cheyenne by a road which is 105 miles long, and which makes close connection with the Pacific or overland trains. You are to understand that all these lines are connected; that, now that the great bridge at Omaha is completed, you might, if you desired it enough to charter a car, go through without change of cars; that you may buy your through-ticket in New York; and that the traveling time, from ocean to ocean, is seven days. Further on will be found tables of time, cost, and other particulars.

In practice the tourist bound to California will do well to stop two days in Chicago, and one day in Salt Lake City, in which case he would get to San Francisco in ten days, and with surprisingly little fatigue, and he will have seen several very remarkable sights on the way. For instance, though Chicago itself was burned and is not yet rebuilt, the ruin is worth seeing; and near at hand, accessible by frequent trains, he may find one of the most characteristic sights of our continent, the great Chicago stock-yards—a city whose inhabitants are cattle, sheep, and hogs, and where these creatures are so well cared for that many a poor human being supposed to have an immortal and amenable soul, living in a New York tenement-house, is neither so cleanly lodged nor so well protected against harm or cruelty.

This city of the beasts has streets, sewers, drains; it has water laid on; it is lighted with gas; it has a bank, an exchange, a telegraph-office, a post-office, an admirably kept hotel; it has even a newspaper—else it would not be an American city. It has very comfortable accommodations for 118,350 residents —namely, 21,000 head of cattle, 75,000 hogs, 22,000 sheep, with stalls for 350 horses. It contains 345 acres of land; and when all this is prepared for use, 210,000 head of cattle can be lodged, fed, and cared for there at once, and with the certainty that not one will suffer or go astray.

It has thirty-five miles of sewers; ten miles of streets and alleys, all paved with wood; three miles of water-troughs, all so arranged that the water may be stopped off at any point; 2300 gates, which are the front-doors, so to speak, of the place; 1500 open pens, heavily fenced in with double plank; 100 acres are covered with pens for cattle, and all these are floored with three-inch plank; 800 covered sheds for sheep and hogs; and seventeen miles of railroad track connect this city of the beasts with every road which runs into Chicago. It has two Artesian wells, one 1032, the other 1190 feet deep, which, being spouting wells, send the water into huge tanks forty-five feet high, whence it is distributed all over the place in pipes. Fourteen fire-plugs are ready to furnish water in case of fire; immense stacks of hay and large granaries of corn contain the food needed for the beasts; and, I believe, a train of palace cattle cars now bears the emigrant animals from this their city comfortably to the Eastern butchers.

Of course, as the "lower animals" do not help themselves, a considerable force of men is needed to attend upon those gathered here. The company receives and cares for all animals sent to it. It has thus taken in, penned, fed, watered, littered, and taken account of 41,000 hogs, 3000 cattle, and 2000 sheep in a single day, and that without accident, hitch, or delay. From 175 to 200 men are constantly employed in this labor; and to accommodate these and their families numerous cottages have been built, while a town-hall for public meetings and lectures, a church, a Sunday-school, and a well-kept day-school provide for their instruction and amusement. The hotel, which has bath-rooms, and is in other respects well fitted, is for the use of the drovers and owners of cattle, whom business brings hither. At the Exchange sales are effected, and the news of a sale may be sent to Maine or Texas by a telegraph from the same room, while the money paid may be securely deposited in the bank, which is under the same roof. Thus you will see that this surprising enterprise is completely furnished in every part; and it will not be the least part of your surprise and pleasure to find that this whole business, which about New York often involves painful brutalities, is here conducted as quietly as though a Quaker presided over it, and with as much care for the feelings of the dumb brutes as though good Mr. Bergh were looking on all the time.

It will cost about two millions when it is completed; is a pecuniary success, as it deserves to be; and when you hear that so long ago as 1869 Chicago received and sent off 403,102 head of cattle, 1,661,869 hogs, and 340,072 sheep, and that it will probably remain for years one of the greatest cattle markets in the world, you will see the need for such elaborate arrangements as I have described, and, if you are a humane person, will be pleased that these immense droves of animals are kindly cared for and comfortably lodged and fed on their way to a

market. Most of the people employed in the yards are Americans.

Among such a multitude of beasts as are here received Mr. Buckle's law of averages would tell you that there will be a certain few monstrosities; and you will probably be shown one or two Texas steers which look much more like elephants or mammoths than horned oxen; perhaps a two-headed sheep, or a six-legged hog; and, indeed, when I saw the stables they contained a collection which would have turned the face of a Chatham Street exhibitor green with envy.

The Union Stock-yards lie but half an hour from the centre of Chicago, and there is no reason why ladies and children should not visit them if the weather is fine. I do not know of a more instructive or remarkable sight for tourists. If you want to see how private enterprise and good taste can provide for the pleasant lodging of men and women, turn from this city of the beasts and go out to Riverside Park.

It always seemed to me that it would be the summit of human felicity to have a handsome house in the New York Central Park, and thus to seem to own and control, and to really enjoy as a piece of personal property, that fine pleasure-ground. When the Tammany Ring was in the height of its power this thought was also entertained by its chiefs, who for some time nursed and fondled a proposition that "a few eminent citizens" should be allowed, "under proper restrictions," to build themselves fine houses in the Park. It is not difficult to guess who would have been the eminent citizens to share among themselves this happy privilege; and New York may thank *Harper's Weekly*, the *Times*, and Thomas Nast that their ambitious scheme has come to naught. Their names would have begun with a T and an S and a C and an H.

Well, a company of capitalists in Chicago conceived the idea that it would be possible and profitable to buy a piece of ground near that city, lay it out as tastefully and improve it as thoroughly as the New York Central Park, and then sell it off in lots to people of taste and wealth. It needed some faith to begin such an undertaking; but if you go to Riverside you will see Central Park roads, drives, and paths; you will find gas and water supplied as though it were a city; you will find tasteful public buildings, a hotel, which was a place of refuge for multitudes of Chicago people after the great fire, and which is a favorite summer resort; and you will see a good many people living already with Central Park surroundings, and with all the comforts and social advantages of the city and the country combined.

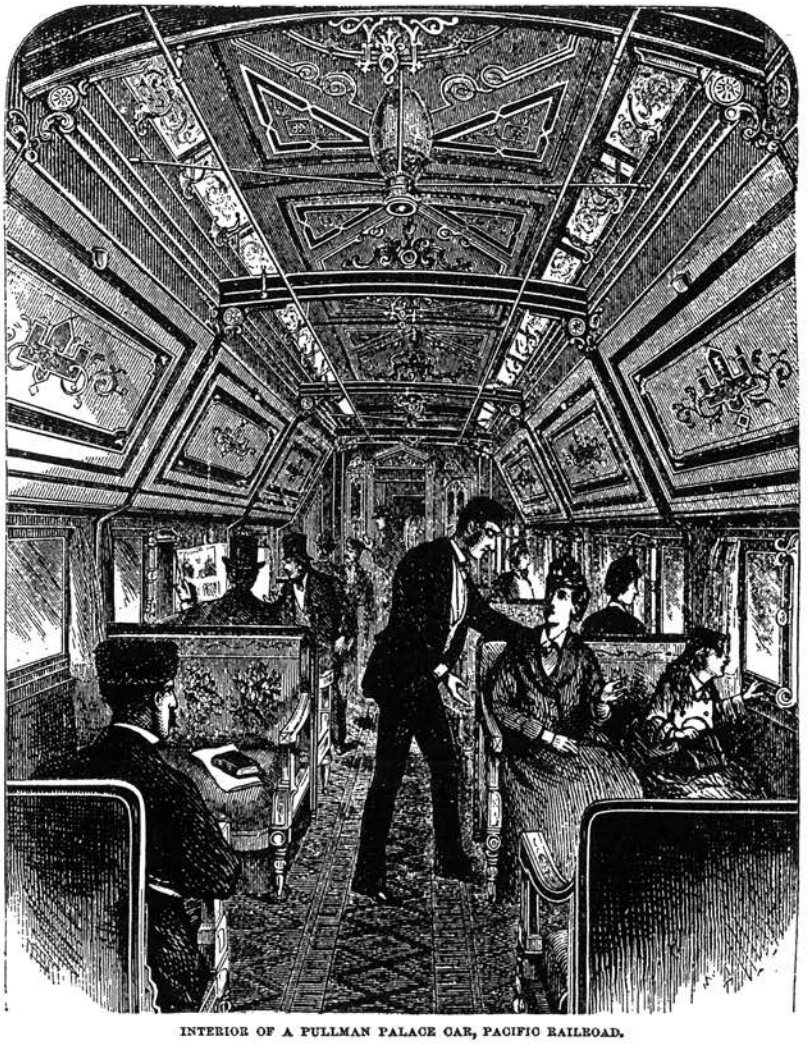
Perhaps you will wonder whether co-operation is not a good thing for the wealthy as well as the struggling poor, and whether the many who prefer to live in the suburbs of great cities would not do wisely and save money if they would—having found a region they like—unite to improve it upon some general and tasteful plan.

And whatever you may think of Chicago in ruins, or of the future of that stirring place, when you have seen Riverside and the Union Stock-yards you will acknowledge that Chicago capitalists have known how, in the words of the old tavern signs, to provide "first-rate accommodations for man and beast."

At Chicago the journey to California really begins. In the East we make journeys by rail; west of Chicago men live on the cars. In the East a railroad journey is an interruption of our lives. We submit to it, because no one has yet been ingenious enough to contrive a flying-machine, and the telegraph wires do not carry passengers by lightning; but we submit to it reluctantly, we travel by night in order to escape the tedium of the journey, and no one thinks of amusing himself on the cars. When you leave Chicago you take up your residence on the train. The cars are no longer a ferry to carry you across a short distance: you are to live in them for days and nights; and no Eastern man knows the comfort or pleasure of traveling by rail until he crosses the plains.

I suspect that part of our discomfort in making a railroad journey comes from its brevity. You are unsettled; the car, on a common journey, is but a longer ferry; and who ever thought of taking his ease on a ferry-boat? You can not fix your mind on the present; your constant thought is of when you will get there. Now the journey to San Francisco takes not a few hours, but a number of days; and when you are safely embarked on the train at Chicago, you leave care behind in the dépôt, and make yourself comfortable, as one does on a sea voyage.

Moreover, until you have taken this journey, you will never know how great a difference it makes to your comfort whether your train goes at the rate of forty or at twenty-two miles per hour. This last is the pace of the iron horse between Omaha and San Francisco; and it is to the fierce and rapid rush of an Eastern lightning express what a gentle and easy amble is to a rough and jolting trot. It would not be surprising to find that the overland journey will, by-and-by, create a public opinion in favor of what New Yorkers would call slow trains. Certainly a lightning express rushing through from Chicago to San Francisco would not carry any one, except an express-man, a second time. At thirty-five or forty miles per hour the country you pass through is a blur; one hardly sees between the telegraph poles; pleasure and ease are alike out of question; reading tires your eyes, writing is impossible, conversation impracticable except at the auctioneer pitch, and the motion is



INTERIOR OF A PULLMAN PALACE CAR, PACIFIC RAILROAD.

wearing and tiresome. But at twenty-two miles per hour travel by rail is a different affair; and having unpacked your books and unstrapped your wraps in your Pullman or Central Pacific palace car, you may pursue all the sedentary avocations and amusements of a parlor at home; and as your housekeeping is done—and admirably done—for you by alert and experienced servants; as you may lie down at full length or sit up, sleep or wake, at your choice; as your dinner is sure to be abundant, very tolerably cooked, and not hurried; as you are pretty sure to make acquaintances on the car; and as the country through which you pass is strange, and abounds in curious and interesting sights, and the air is fresh and exhilarating—you soon fall into the ways of the voyage, and if you are a tired business man, or a wearied housekeeper, your careless ease will be such a rest as certainly most busy and overworked Americans know how to enjoy.

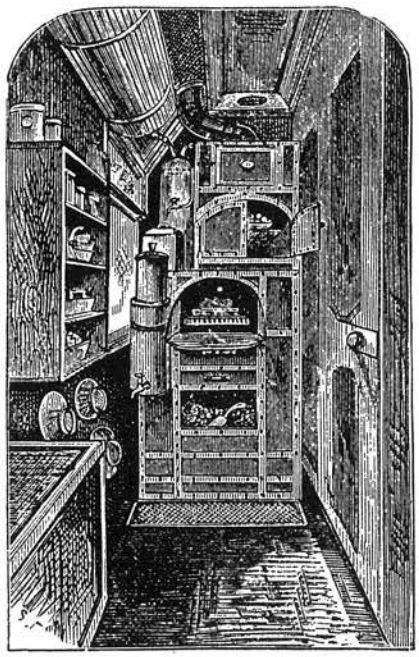
I tell you all this in some detail, because it was new to me, and it is worth while to be spared the unpleasant forebodings of weariness and lack of occupation which troubled me when I was packing my trunk for Frisco.

You write very comfortably at a table in a little room, called a drawing-room, entirely closed off, if you wish it, from the remainder of the car, which room contains two large and comfortable arm-chairs and a sofa, two broad, clean, plate-glass windows on each side, which may be doubled if the weather

is cold, hooks in abundance for shawls, hats, etc., and mirrors at every corner. Books and photographs lie on the table; your wife sits at the window, sewing and looking out on long ranges of snow-clad mountains, or on boundless ocean-like plains; children play on the floor, or watch at the windows for the comical prairie-dogs sitting near their holes, and turning laughable somersaults as the car sweeps by. You converse as you would in your parlor at home; the noise of the train is as much lost to your consciousness as the steamship's rush through the waters; the air is pure, for these cars are thoroughly ventilated; the heating apparatus used seems to me quite perfect, for it keeps the feet warm, and diffuses an agreeable and equal heat through all parts of the car. This is accomplished by means of hot-water pipes fastened near the floor.

As at sea, so here, the most important events of the day are your meals. The porter calls you at any hour you appoint in the morning; he gives you half an hour's notice of breakfast, dinner, or supper; and the conductor tells you not to hurry, but to eat at your ease, for he will not leave any one behind. Your beds are made up and your room or section swept and aired while you are at breakfast, or before, if you are early risers; you find both water and fresh towels abundant; ice is put into the tank, which supplies drinking-water at the most improbable places in the great wilderness; and an attentive servant is always within call, and comes to you at intervals during the day to

DINING-ROOM, UNION PACIFIC RAILROAD.



COOKING RANGE, PULLMAN PALACE CAR, UNION PACIFIC RAILROAD.

ask if you need any thing to make you more contented.

About eight o'clock—for, as at sea, you keep good hours—the porter, in a clean gray uniform, like that of a Central Park policeman, comes in to make up the beds. The two easy-chairs are turned into a double berth; the sofa undergoes a similar transformation; the table, having its legs pulled together, disappears in a corner; and two shelves being let down furnish two other berths. The freshest and whitest of linen and brightly colored blankets complete the outfit; and you undress and go to bed as you would at home, and unless you have eaten too heartily of antelope or elk, will sleep as soundly.

Thus you ride onward, day after day, toward the setting sun, and unless you are an extremely unhappy traveler, your days will be filled with pleasure from the novel sights by the way. At Burlington you cross the Mississippi over a noble bridge, and will be surprised to see what a grand river the Father of Waters is nearly 1600 miles above its mouth. At Omaha you cross the Missouri, there a variable, turbid, but in the early spring a narrow river, which yet requires a bridge more than a mile long when the stream is bank-full. This new bridge at Omaha was built by the engineer to whom New York is indebted for the iron bridge at Harlem, T. E. Sickles, and it is a remarkable work to be done so far from the appliances of civilization.

From Chicago to Omaha your train will carry a dining car, which is a great curiosity in its way. I expected to find this somewhat greasy, a little untidy, and with a smell of the kitchen. It might, we travelers thought, be a convenience, but it could not be a luxury. But in fact it is as neat, as nicely fitted, as trim and cleanly, as though Delmonico had furnished it; and though the kitchen may be in the forward end of the car, so perfect is the ventilation that there is not even the faintest odor of cooking. You sit at little tables which comfortably accommodate four persons; you order your breakfast, dinner, or supper from a bill of fare which, as you will see below, contains a quite surprising number of dishes, and you eat from snow-white linen and neat dishes admirably cooked food, and pay a moderate price.

It is now the custom to charge a dollar per meal on these cars; and as the cooking is admirable, the service excellent, and the food various and abundant, this is not too much. You may have your choice in the wilderness, eating at the rate of twenty-two miles per hour, of buffalo, elk, antelope, beefsteak, mutton-chops, grouse—but it is better to give you a bill of fare from which I once ordered my dinner on such a car, and wondered where they kept their stores:

BROILED.

Porter-house Steak	$0 75	Spring Chicken	1 00
Do., with Mushrooms	1 00	Do., half.	75
Mutton-Chops, plain	50	Breakfast Bacon	40
Do., with Tomato Sauce	75	Broiled Ham	40
Veal Cutlets, breaded	50	Lamb Chops, plain	50

COLD DISHES.

Sliced Boiled Tongue	40	Sardines	40
Do., Ham	40	Pickled Lobster	40
Pressed Corned Beef	50	Spiced Oysters	40

OYSTERS.

Raw	50	Stew	50
Fancy Roast	75	Fried	60

EGGS.

Boiled Eggs	25	Shirred Eggs	30
Fried Eggs	25	Omelet, plain	30
Poached Eggs	25	Do., with Rum	40
Scrambled Eggs	30	Do., and Ham	40

VEGETABLES.

Green Corn	10	New Boiled Potatoes	10
New Green Pease	10	Fried Potatoes	10
Stewed New Potatoes	10		

RELISHES.

Chowchow	10	Worcestersh'e Sauce	
Mixed Pickles	10	Walnut Catsup	
Queen's Olives	15	Tomato Catsup	
Horse-Radish		French Mustard	

PRESERVED FRUITS.

Peaches	25	Apricots	25
Prunes	25	Damsons	25
Blackberries	25	Cherries	25
Pine-Apples	25		

BREAD.

Dry Toast	10	Hot Biscuit	10
Milk Toast	25	Corn Bread	
Buttered Toast	15	French Loaf	
Albert Biscuit	10	Boston Brown Bread	
Dipped Toast	15		

BREAKFAST WINES.—Claret and Sauterne.
CHAMPAGNE WINES.—Heidsick and Krug.

French Coffee, English Breakfast Tea, and Chocolate	15
French Coffee, Tea, Chocolate, without an order.	25

GEORGE M. PULLMAN.

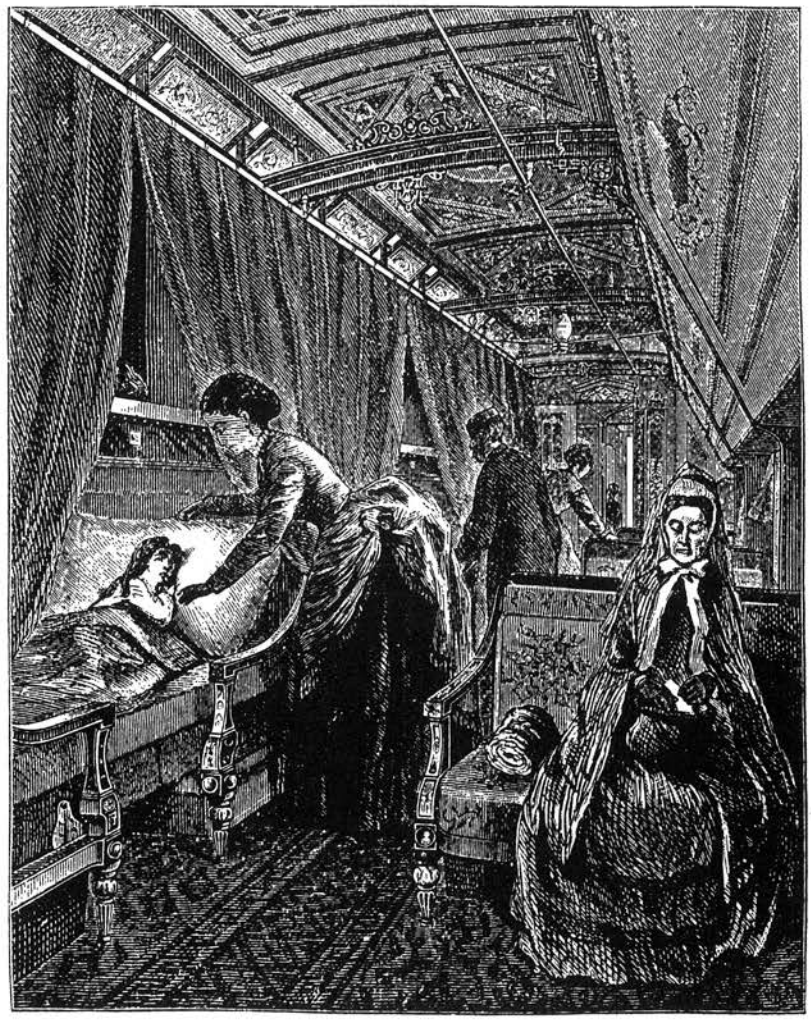
Beyond Omaha, unless you have taken seats in a hotel car, you eat at stations placed at proper distances apart, where abundant provision is made, and the food is, for the most part, both well cooked and well served. These hotel stations are under the supervision and control of the managers of the roads, and at many of them, especially on the Central Pacific road—in California, that is to say—your meals are served with actual elegance. Sufficient time is allowed —from thirty to thirty-five minutes—to eat; the conductor tells you beforehand that a bell will be rung five minutes before the train starts, and we always found him obliging enough to look in and tell the ladies to take their time, as he would not leave them.

There is a pleasant spice of variety and adventure in getting out by the way-side at the eating stations. We saw strange faces, we had time to look about us, the occasional Indian delighted the children, we stretched our legs, and saw something of our fellow-passengers in the other cars. Moreover, if you have a numerous party desirous to eat together, the porter will telegraph ahead for you to have a sufficient number of seats reserved, and thus you take your places without flurry or haste, and do not have your digestion spoiled by preliminary and vexatious thoughts about pushing for a good place. In short, these trains are managed for the pleasure and accommodation of the passengers. The voyage would, I suppose, be unendurable else.

The sleeping car, but for which the journey to the Pacific by rail would be extremely uncomfortable, but by whose help it is made a pleasure-trip, owes its development and perfection to Mr. George M. Pullman, who is the inventor and patentee of most of the ingenious devices by which the traveler's comfort is secured in these cars. Of course he is an American. He began life poor; was once a miner in Colorado, and was, I believe, so poor when he began the experiment of his sleeping cars that it was with great difficulty he raised the means to build his first car. He is now president of the Pullman Car Company, which has five hundred sleeping,

drawing-room, and hotel cars on different railroads, and is building more, at the rate of three finished cars for every week of the present year. The company are also building a new kind of day cars, to be put on such short routes as that between New York and Washington; and by the time you are reading this it will run a daily hotel car from Chicago to Ogden, in which you may sit and sleep and have your meals served at any time you may choose to order them. It is planning, and will fit up this year near Chicago, extensive car-works of its own on grounds large enough to contain also the cottages of the thousand workmen who will be there employed, and it is said that these grounds are to be planned with special regard to the convenience of the men and their families. The company has already found it expedient to keep and furnish, near the dépôts in all the great cities, rooms where conductors and porters may, at the end of a journey, bathe, change their clothes, make out their reports, and read, write, or amuse themselves. Mr. Pullman thinks that as he requires much from his men, and as they are picked men, trained with care, it is an advantage to the company to furnish them such a home at the ends of the great routes of travel, where they may make themselves comfortable and at ease. Certainly it is a humane thought, and likely, besides, to give him the command of responsible servants.

The Pullman cars are constantly improving. The Russian Grand Duke traveled last winter in perhaps the most commodious and



INTERIOR OF PULLMAN SLEEPING CAR, PACIFIC RAILROAD.

perfect manner in which any one ever traveled by rail. He had in one train a day car, in which he and his companions could sit at ease, read, write, or amuse themselves as in a parlor; a dining or hotel car, into which they walked to breakfast or dinner; and a sleeping car. No doubt the impressions he got of this kind of pleasure-traveling will facilitate Mr. Pullman's entrance into Russia, where, as well as in England, Germany, and France, the Pullman Company will within two years have placed their cars, as arrangements are now making for that purpose.

The superiority of the American sleeping cars is in their cleanliness, the perfection of their heating and ventilating contrivances, and the presence of every thing which can make a car convenient to live in. There is nothing like them in Europe, and all European travelers in this country have been surprised and delighted with them. The Pullman Company is successful, as it deserves to be. It now runs cars on nearly one hundred roads, the railroad companies generally owning one-half the stock of the cars they use, and thus having a mutual interest. The Pullman Company sells to the public what the railroad company in such cases does not furnish—the sleeping-car accommodations. You may now ride in Pullman cars over sixty thousand miles of railroad. The Pullman Company already employs over two thousand persons, and in its new car-shops will employ one thousand more, and all this vast business has grown from the smallest beginnings.

One of the pleasantest ways to travel across the continent, though not, I think, the way in which you will see most of the people, is to make the journey with a party of friends numerous enough to fill, or nearly fill, a car. To show you at what cost—exclusive of the regular railroad fare—such a company may journey, I give you here some extracts from a little book issued for the information of travelers by the company:

"The Pullman Palace Car Company is ready to furnish excursion parties with sleeping, drawing-room, and hotel cars for a trip to San Francisco or elsewhere on these terms:

"For a regular sleeping car, containing twelve open sections of two double berths each, and two state-rooms of two double berths each (in all twenty-eight berths), with conductor and porter, seventy-five dollars per day.

"For a drawing-room car, containing two drawing-rooms, having each a sofa and two large easy-chairs by day, and making up at night into two double and two single berths, three state-rooms having each two double berths, and six open sections of two double berths each (in all twenty-six berths), with conductor and porter, seventy-five dollars per day.

"For a hotel car, containing two drawing-rooms, as above described, one state-room having two double berths, and six open sections of two double berths each (in all twenty-two berths), and having also, in one end, a kitchen fully equipped with every thing necessary for cooking and serving meals, with conductor, cook, and two waiters, eighty-five dollars per day.

"The conductor, if desired, will make all arrangements for the excursionists with the railroads for procuring transportation of the car; and in the case of their taking a hotel car, will also act as steward, purchasing for them the requisite provisions for the table.

"The car is chartered, with its attendants, at a certain rate per day from the time it is taken until we receive it back again.

"We have no facilities for securing special rates of railroad fare, and would suggest that, in case an excursion is organized, application be made to any ticket agent who is empowered to sell through-tickets, and the best rates of railroad fare obtained from him to and from the terminal point of the proposed trip.

"We can forward a car from our head-quarters in Chicago to any point which the excursionists may designate as their starting-place."

The Pullman hotel car is one of the most ingenious as well as one of the most convenient of all modern arrangements for travel. It can seat forty persons at the tables; it contains not only a kitchen—which is a marvel of compactness, having a sink, with hot and cold water faucets, and every "modern convenience"—but a wine closet, a china closet, a linen closet, and provision lockers so spacious as to contain supplies for thirty people all the way from Chicago to the Pacific if necessary; its commissary list contains, as I ascertained by actual count, 133 different articles of food; it carries 1000 napkins, 150 table-cloths, 300 hand-towels, and 30 or 40 roller-towels, besides sheets, pillow-cases, etc., etc. And unless you are of an investigating turn, you would never know that the car contained even a kitchen.

Whenever a sleeping car arrives at the end of a journey, it is laid over for twenty-four hours. Thereupon the porter gathers up the soiled linen for the laundry, and a force of men and women enter the car and take out of it bedding, carpets, and every movable thing; all are beaten with rods and hung up to air; and meantime the whole car is aired, and the wood-work dusted, rubbed, and scrubbed in the most thorough manner. This is the manner of their housekeeping.

On the whole, a company of three or four can travel the most enjoyably across the continent; and there is no reason why a man should not take his children, if they are ten years old or over, as well as his wife. Four fill a drawing-room comfortably, four can be comfortable in a section on a sleeping car; and in California, if you have three or four in your party, you can travel as cheaply by private carriage as by stage to all the notable sights of the State which you do not reach by rail, and thus add much to the comfort and pleasure of such journeys. On the cars you are sure to make pleasant acquaintance, and probably to your advantage, for you will find persons who have been over the route before ready to point out curious objects to you. And from the hour you leave Omaha you will find every thing new, curious, and wonderful: the plains, with their buffalo, antelope, and prairie-dogs; the mountains, which, as you approach Cheyenne, lift up

ROUNDING CAPE HORN.

their glorious snow-clad summits; the deep cañons and gorges which lead from Wasatch into Ogden, and whose grim scenery will seem to you, perhaps, to form a fit entrance to Salt Lake; the indescribable loveliness and beauty of the mountain range which shelters the Mormon capital; the extended, apparently sterile, but, as long-headed men begin to think, really fertile alkali and sage-brush plain; the snow-sheds which protect the Central Pacific as you ascend the Sierra; and, on the morning of the last day of your journey, the grand and exciting rush down the Sierra from Summit to Colfax, winding around Cape Horn and half a hundred more precipitous cliffs, down which you look out of the open "observation car" as you sweep down from a height of 7000 feet to a level of 2500 in a ride of two hours and a half. A grander or more exhilarating ride than that from Summit to Colfax on the Central Pacific Railroad you can not find in the world. The scenery is various, novel, and magnificent. You sit in an open car at the end of the train, and the roar of the wind, the rush and vehement impetus of the train, the whirl around curves, past the edge of deep chasms, among forests of magnificent trees, fill you with excitement, wonder, and delight.

When we had seen the Wasatch cañons we thought the glory of the journey must be over, but the lovely mountains about Salt Lake gave us new delight; and last, as though nature and man had conspired to prepare a series of surprises for the traveler to California, comes the grand stormy rush down the Sierra, followed, as you draw down to the lower levels, by the novel sights of men actually engaged in gold mining; long flumes, in which they conduct the water for their operations, run for miles near the track; and as you pass below Gold Hill you may see men setting the water against great hills, which they wash away to get out the gold from the gravel which bears it. The entrance into California is to the tourist as wonderful and charming as though it were the gate to a veritable fairy-land. All its sights are peculiar and striking; as you pass down from Summit the very color of the soil seems different and richer than that you are accustomed to at home; the farm-houses, with their broad piazzas, speak of a summer climate; the flowers, brilliant at the road-side, are new to Eastern eyes; and at every turn in the road fresh surprises await you.

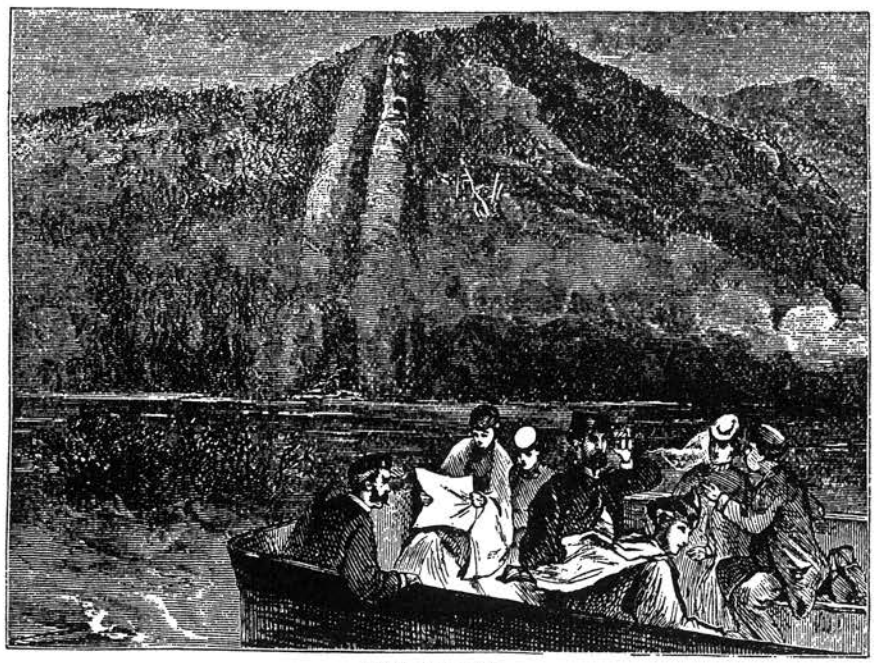
On the plains and in the mountains the railroad will have seemed to you the great fact. Man seems but an accessory; he appears to exist only that the road may be worked; and I never appreciated until I crossed the plains the grand character of the old Romans as road-builders, or the real importance of good roads. We, too, in this generation are road-builders. Neither the desert nor the sierra stops us; there is no such word as "impossible" to men like Hunt-

ington; they build railroads in the full faith that population and wealth will follow on their iron track.

And they seem to be the best explorers. The "Great American Desert" which we school-boys a quarter of a century ago saw on the map of North America has disappeared at the snort of the iron horse; coal and iron are found to abound on the plains as soon as the railroad kings have need of them; the very desert becomes fruitful, and at Humboldt Wells, on the Central Pacific Railroad, in the midst of the sage-brush and alkali country, you will see corn, wheat, potatoes, and fruits of different kinds growing luxuriantly, with the help of culture and irrigation; proving that this vast tract, long supposed to be worthless, needs only skillful treatment to become valuable.

One can not help but speculate upon what kind of men we Americans shall be when all these now desolate plains are filled, when cities shall be found where now only the lonely dépôt or the infrequent cabin stands; when the iron and coal of these regions shall have become the foundation of great manufacturing populations; and when, perhaps, the whole continent will be covered by our Stars and Stripes. No other nation has ever spread over so large a territory or so diversified a surface as ours. From the low sea-washed shores of the Atlantic your California journey carries you to boundless plains which lie nearly as high as the summit of Mount Washington. Americans are digging silver ore in Colorado three thousand feet higher than the highest point of the White Mountains. At Virginia City, in Nevada, one of the busiest centres of gold mining, the travelers find it hard to draw in breath enough for rapid motion, and many persons, when they first arrive there, suffer from bleeding at the nose by reason of the rarity of the air. Again, in Maine half the farmer's year is spent in accumulating supplies for the other and frozen half; all over the Northern States the preparation for winter is an important part of our lives; but in San Francisco the winter is the pleasantest part of the year. In Los Angeles they do not think it needful to build fire-places, and scarcely chimneys, in their houses. And one people, speaking the same language, reading the same books, holding a common religion, paying taxes to the same government, and proud of one common flag, pervades these various altitudes and climates, intervisits, intercommunicates, intermarries, and is, with the potent help of the railroad, fused constantly more closely together as a nation. What manner of man, think you, will be the American of 1972, the product of so many different climes, of so various a range as to altitude?

I wrote that on the plains and on the mountains the railroad is the one great fact. Whatever you notice by the way that is the handiwork of man appears to be there solely for your convenience or safety who are passing over the road. On the Union Pacific you



OBSERVATION CAR.

EAGLE GAP, ON THE TRUCKEE RIVER.

see miles upon miles of snow-fences. On the Central Pacific thirty or forty miles of solid snow-sheds, thoroughly built, and fully guarded by gangs of laborers, make the passage safe in the severest snow-storms. Great snow-plows, eleven feet high, stand at intervals on the plains and in the mountains, ready to drive, with three or four, or even seven or eight, locomotives behind them, the snow out of the cuts. The telegraph accompanies you on your whole long journey. Coal miles are opened only to furnish fuel to your locomotive. At intervals of a hundred miles, night and day, you hear men beating the wheels of the train to see if they are sound. Eating stations furnish you your meals; ice is supplied on the way; laborers stand aside in the desert and on the mountains as the train sweeps by, and close up behind it to repair the track or keep it in order. There is a Chinaman and a half on every mile of the Central Pacific Railroad; and this road is not only a marvel of engineering skill and daring, running through a most difficult country, and abounding in deep rock cuts, tunnels, and snow-sheds, but you will find its road-bed every where firm and solid, as though it had been laid for years, the cuts clean and clear, and on every part of the work an air of finish and precision, which show the confidence of its owners, and the thorough spirit in which it was conceived and completed and is maintained.

You reach San Francisco by passing through the great Sacramento plain, one of the famous wheat fields of the State, to Vallejo, whence you sail down the magnificent bay of San Francisco to the city; and thus you have to the last hour of your journey some new scene opening to your eyes, and when you go to sleep in your hotel at last, may dream of the Cliff House ride as a pleasure still to come.

I close this article with a few detailed directions to tourists, such as I should myself have been glad of when I first made the journey.

1. At Ogden your train will connect with the regular train for Salt Lake City, which place you reach the same evening. The Townsend House is kept by a Mormon, the

American by a Gentile. An omnibus conveys you to either. Go to Brigham Young's theatre in the evening, if you like, and see his rocking-chair in the aisle, and the large space set apart in the box tier for his children. Rise early the next morning and walk about for an hour, and you may see almost the whole place. After breakfast get a carriage and tell the driver to take you to the Tabernacle and the menagerie —the last contains a number of native animals well worth seeing—and to show you the principal objects of interest. You will have time for a leisurely dinner before the cars start, and will yet have seen all that Salt Lake City affords to the traveler—for it is not easy for non-residents to see the inside of a Mormon house.

SNOW-SHEDS ON THE PACIFIC RAILROAD.

2. At Salt Lake City buy a little gold for California; they take greenbacks in Utah.

3. In San Francisco you can exchange your greenbacks for gold notes, which are more convenient than coin, and just as serviceable.

4. Eat only two meals per day on your journey, as you are not exercising nor working. After you enter California you will find both fruit and flowers for sale on the train—signs of civilization which do not attend you on an Eastern train.

5. From Ogden, when you start westward, telegraph to the Grand Hotel, the Occidental, or wherever you mean to stay in San Francisco, for rooms. The cost is a trifle, and it is a convenience to have your apartments ready for you when you arrive.

6. In planning your journey you will desire to know how much time is required, and what the expense of your trip will be. We give three schedules or time-tables for tours of various lengths, and a general estimate of expenses.

SNOW-PLOW ON THE PACIFIC RAILROAD.

INTERIOR OF SNOW-SHED.

FOR A FIVE WEEKS' TOUR.

	DAYS.
From Chicago to San Francisco	5
At Salt Lake	1
San Francisco and the surroundings	5
The San José Valley, to the Almaden Mine	3
The Geysers	2
The Yosemite and Big Trees. (This gives you one day in the Calaveras grove and five in the valley.)	12
Return to Chicago	5
Total	33

FOR A SIX WEEKS' TOUR.

	DAYS.
From Chicago to San Francisco	5
At Salt Lake	1
San Francisco and surroundings	8
The San José Valley and Almaden Mine	3
Santa Cruz, Watsonville, Pescadero, etc.	4
The Geysers	3
The Yosemite and Big Trees	12
Lakes Tahoe and Donner	2
Virginia City	1
Total	39

FOR A NINE WEEKS' TOUR.

Take the last, and add—

	DAYS.
To Los Angeles and San Diego	14
To Mount Shasta	6
Total	59

If you can spare more time, you should add a week to your Yosemite journey, which would give you opportunity to make the tour of the valley's outer rim, which can be done by ladies now without discomfort.

In going to the Yosemite, go in by way of Bear Creek, which, though a little longer ride, gives you Inspiration Point as your first view of the famous valley; and pass out the other way, as that leads, by way of Chinese Camp and Sonora, through one of the most famous of the "placer diggings," to the Calaveras Grove of Big Trees. Next I put the cost of the journey:

Fare by railroad from Chicago to San Francisco	$118
Return	118
To Salt Lake and return	5
To San José and return	10
To the Geysers and return	26
To the Big Trees, Yosemite, and return	38
Railroad and stage fares for five weeks' tour	$315
To this add, for sleeping cars, about $3 per day—ten days	30
	$345

Add, for hotel accommodations, $3 50 per day, which is the usual price; and for car-

riage hire in seeing the Almaden mines, $5; for horses and guides on the Yosemite, $5 per day; for meals on the railroad, $2 per day. In all, $125 will pay your hotel and carriage bills, horse and guide in the Yosemite Valley, railroad, meals, etc.; and this, added to $345, makes $470. This is a liberal and not a close estimate; and if you allow $500 for a five weeks' tour to California and back, you will have enough to pay the slight premium on gold, and to buy some curiosities to take home with you. And you will have stopped at first-class hotels every where, and used a carriage wherever it was convenient.

To see Lake Tahoe, Donner Lake, and Virginia City will cost you twenty dollars more, including hotel bills. These you should see on your way home, getting off the Central Pacific train at Truckee, and resuming your place at Reno, when you have made the trip, without extra charge. Allow three days, and engage your sleeping-car accommodations at Sacramento, for a given day, on your way to Truckee.

To Los Angeles you go by steamer; fare, $18 each way, which includes meals and state-rooms. The sail is a lovely one, with land in sight all the way. Try to secure a berth on the land side, as the coast affords continuously fine views. The steamer lands you at San Pedro. Thence by cars to Los Angeles the fare is $2 50. From Los Angeles you should drive to the Mission San Gabriel, where are the finest orange orchards. The drive will cost you from three to five dollars. At San Diego you see a fine bay and a growing city, which now waits for railroad connections.

To Santa Cruz, Watsonville, and Pescadero the round trip should cost you from twenty to twenty-five dollars, and ten dollars less if you start from San José, after having seen the New Almaden quicksilver mines, and thus save the return to San Francisco.

If you have three weeks more to spare after going the round above described, you should visit the Columbia River, where also there is magnificent scenery. This journey is not so often made as it deserves to be. The following schedule of time and expense will help you to determine if you will make it:

	Days.	Cost.
San Francisco to Portland	4	$30
In the Willamette Valley	3	15
Up the Columbia and back	4	20
The voyage around Puget Sound	7	30
Back to San Francisco	4	30
Total	22	$125

You will find good hotels every where, though often, in the country, plainly furnished. The bread is always good, food is always abundant, and generally well cooked, and the beds are always clean and almost always good. The stage-drivers, landlords, and others with whom a traveler has to do are civil and obliging, and there are no attempts at extortion.

In a succeeding article I shall attempt to give some more detailed account of the sights which are worthy of a tourist's attention in California.

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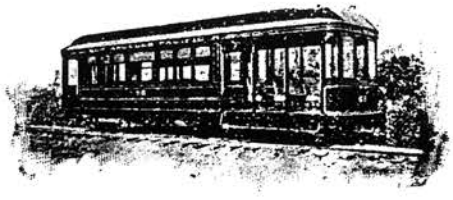
from *Out West*, May 1903, Vol., XVIII, No. 5

THE LOS ANGELES PACIFIC RAILROAD



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The Development of Public Transportation in Los Angeles

by DONALD E. TORGUSON

IN THE EARLY 1900's the story went around Los Angeles about a little girl and her mother who rode to the beach in a Pacific Electric car.

"Mother," the youngster inquired, "whose street car are we riding in?"

"Mr. Huntington's," was the reply.

Farther along they passed a new town.

"What place is that?" came the inevitable question.

"Huntington Park."

A moment later they arrived at the seashore.

"Where are we now, mother?"

"Huntington Beach."

Soon they stepped onto the sand and looked at the surf.

"Mother," asked the little girl, "does Mr. Huntington own the ocean, or does it still belong to God?"

In the Los Angeles of that day, this joke captured the awe with which its citizens regarded the fantastic operations of Henry E. Huntington. In his time he developed one of the finest and largest interurban transportation systems in the world.[1]

This is not a biography of the man Huntington, but he and his enterprises must be mentioned in any discussion of the development of public transportation in the city of Los Angeles, especially since it affected the growth of the

entire Southern California area during the late nineteenth and early twentieth centuries.

Prior to 1869, the year the first transcontinental railroad linked California to the Atlantic Coast, public transportation was quite limited. Except for stagecoaches, wagon trains, and coastal and river steamers, travel was limited to oxcart, horseback, and Shank's Mare. By 1870, however, Los Angeles had grown from a mere Pueblo to a city of 5,728 population, while San Francisco boasted a population of 149,473.[2]

Angelenos realized that it would be beneficial to the city if the Southern Pacific Railroad could be extended from San Francisco to Los Angeles. Unfortunately there was little to attract the line. The primary issue was simply that Los Angeles had an inadequate port facility at San Pedro, with only a dock extending into the ocean. It was the consensus of politicians, newspapermen, and the general public that a rail line should be built from Los Angeles to the harbor at San Pedro to solve the problem of getting freight and passengers from the harbor to town. It might also serve to encourage the railroad to enter the city rather than bypass it for San Diego which had a much better port.

Phineas Banning, operator of a stage and wagon freight line from Wilmington to Los Angeles, began construction of a railroad which, according to the Los Angeles *News,*"....would be the first link in a connection with the Southern Pacific through the Los Angeles Valley, which of itself will give a rapid growth, not only to Los Angeles, but to all of Southern California."[3]

Following considerable difficulties with construction, Banning completed his twenty-one mile railroad from Wilmington to Alameda and Commercial Streets. On November 1, 1869, a daily schedule of service was put into operation. General freight was carried at a charge of five dollars per ton, and the fare for passengers from Los Angeles to San Pedro was two and one-half dollars each.[4]

The completion of this, Los Angeles' first railroad, was not sufficient in itself to attract the Southern Pacific at that time. There was speculation that the Southern Pacific intended to make San Diego (Los Angeles' chief competitor as the central metropolitan area in Southern California in the 1870's) the terminus of its line, and even, perhaps, to connect with the Texas Pacific, completely by-passing Los Angeles.[5]

Businessmen and promoters in Los Angeles contacted the Southern Pacific's "Big Four", Collis P. Huntington, Leland Stanford, Mark Hopkins, and Charles Crocker. After considerable negotiation, the railroad agreed to enter Los Angeles only if it received a subsidy of $610,000 – the amount regarded as necessary to cover the costs of construction of a trunk line.[6]

Despite claims that the railroad was using coercion, and over protests of conservative citizens and civic leaders, the matter was put on the ballot. In November, 1872, the necessary appropriations were approved, and the Southern Pacific began completion of the line between San Francisco and Los Angeles.[7]

This, according to W.W. Robinson, fulfilled the wishes of Angelenos,"... expressed in 1872 when they went to the polls and voted to meet the Southern Pacific's subsidy demands in order to avoid being by-passed. It was perhaps Los Angeles' most significant moment, for it ended El Pueblo's isolation and was the first step in opening Los Angeles to the world."[8]

The final link was completed on September 6, 1876; Los Angeles now had its rail connection with San Francisco. San Diego was considered out of competition with Los Angeles, and perhaps, as Robert Fogelson suggests in his book, *The Fragmented Metropolis,* the Big Four favored Los Angeles all along; "... unlike San Diego, it (the completion of the railroad to Los Angeles) did not jeopardize the Central Pacific or San Francisco. The town's cardinal deficiency – its inadequate and unprotected harbor – was its saving grace."[9]

The first public transportation system exclusively in Los Angeles was an indication of its becoming a metropolitan area. Judge Robert M. Widney, prominent lawyer, landowner, and one of the leaders in the fight to bring the Southern Pacific to Los Angeles, as a convenience to his family and neighbors, constructed a single-track, horse-drawn car line that ran from his residence near Sixth and Spring Streets (then considered to be out in the country) to the Main Street Plaza.[10] This early enterprise was partly financed by far-sighted merchants in the "downtown" section of the city who realized potential customers would take advantage of a convenient way to travel to the business district.

When the line started carrying passengers in 1874, fares were a dime. Passengers' comfort and convenience was paramount. With no scheduled stops, patrons could board or depart a car wherever the tracks were laid. Harris Newmark, Los Angeles pioneer, writes in *Sixty Years in Southern California,* "While the single horse or mule jogged slowly along, the driver, having wound his reins around the handle of the brake, would pass through the never-crowded vehicle and take up fares."[11]

Widney's rail cars were not without troubles, and it was not an uncommon occurrence for passengers to help re-rail a car that had jumped the track on a curve. Ties and rails were laid on the surface of dirt streets, and rain brought the systems to a complete stop when cars became mired in mud. This did not affect the popularity of the system, and soon an enthusiastic public was taking full advantage of the car line to the point where its financial success led to

the construction of many similar enterprises throughout Los Angeles and Southern California.

Spencer Crump, author of *Ride the Big Red Cars,* discusses the value of Widney's efforts as well as the potential future progress of public transportation, and concludes by saying, "Unlike most men, the remarkable Judge Widney was able to see the seeds that he had sown, grow and blossom into creations exceeding his greatest dreams.... And the single-track horsedrawn street car system he started had grown into the biggest interurban operation in the world, knitting a great area together."[12]

Los Angeles was growing in population: the U.S. Census of 1880 showed 11,183 people in the city. This represents a 95 percent increase over 1870. During the same period San Francisco, with 233,959 residents, increased slightly over 55 percent.[13] In the next ten years, Los Angeles experienced a population increase of nearly 500 percent, even though the area remained nearly the same as it had been in 1850.[14] In this decade, Los Angeles came of age as a thriving, prosperous American city.

By 1885 there were two transcontinental railroads to Los Angeles – the Southern Pacific and the Santa Fe. Thousands of people from the East and Midwest flooded into Los Angeles. A passenger fare war in 1887 between the two transcontinental railroads added incentive for prospective Californians to pull up stakes and head west. At its most competitive, the emigrant fare from Kansas City to Los Angeles was a mere $12.95 per person! Even though this rate did not last long, for nearly a year the fare leveled off at $25.00. It is estimated that during 1887 alone, the Southern Pacific carried nearly 120,000 persons to the city.[15]

This mass influx of people created what has been called the "Boom of 1887" in Los Angeles. Real estate developers were doing a "land-office" business, and, to make their prospective buyers aware of pretentious "cities", even built shortline railroads to their subdivisions.

Charles H. Howland, an enterprising, if not successful, real estate developer, is credited with having given Los Angeles its first electric railway system in 1887, even before Frank J. Sprague refined his invention enough to make it a practical commodity in 1888. Howland, developing an area near Vermont and Pico Streets, came up with the idea of providing transportation to his subdivision by constructing an electric rail car powered by electricity from overhead wires. Spencer Crump writes, "The subdivision (Howland's) appropriately was named 'The Electric Railway Homestead Association Tract' in order to capitalize on the innovation... The electric street cars ran for the first time on January 4, 1887, causing a sensation among Los Angeles

residents, a large number of whom were prompted to enjoy the thrill of riding the electric cars." [16]

Between 1874 and 1887 various other methods of public transportation were tried in Los Angeles, including horsedrawn omnibuses and cable cars.

In 1887 the city's first cable car was in operation, running from Hill and Second Streets, over Bunker Hill to Figueroa.[17] Regarding the first cable car in Los Angeles, Harry Carr writes with nostagia in *Los Angeles, City of Dreams,* "The first grand festive day I remember was the opening of the cable railroad... We little boys found it a great boon. A string dropped down the slot would become tangled up in the cable and go whizzing along, dragging a paper ship after it. As it also tangled up the machinery in the powerhouse, the company did not share our enthusiasm." [18]

A cable system constructed near Los Angeles in 1893 was a spectacular feature of the rail line to Mt. Lowe, a tourist attraction at the turn of the century. Cable cars were used to transport passengers up a 1,500 foot incline, from which they would ride the remainder of the way in an electric car.[19]

However, cable cars were too expensive to operate, and they were replaced by electric street cars.

In 1901 a civil engineer by the name of J.W. Eddy conceived the idea of building a cable car from Hill Street to the top of Bunker Hill, paralleling Second Street. Named Angel's Flight, this cable railway carried passengers 315 feet up the side of Bunker Hill. Its two cars, named Olivet and Sinai, started at opposite ends of the line, passing at the center.[20] The fare was always five cents for the round trip, and the line not only served a need for transportation, but became a tourist attraction. Angel's Flight at one time carried as many as 12,000 passengers per day, but that number dwindled to about 3,000 daily by the time it closed.[21] Unfortunately, due to vast community redevelopment, the line was discontinued in 1969.

During the development of public transportation in Los Angeles, many unique and unsuccessful innovations were added to the landscape of the city. An example of this, though not exclusively in the realm of public transportation, was brought about by the increasing popularity of the bicycle during the years before the turn of the century.

Horace Dobkins, an enterprising young businessman, thought he saw an opportunity to capitalize on the bicycle "fad". He thought of building a wooden, elevated "Cycleway", the name he gave it, from Pasadena to Los Angeles, providing the wheelmen with a slightly graded, uninterrupted passage between the two cities. The first 1,000 feet of his bicycle "freeway" opened on January 1, 1900, and was an immediate success– for about a week.

Toll-paying cyclists dropped from more than 500 to four or five a day soon after the newness wore off, and Dobkins was forced to close and dismantle his brain-child.[22]

At this point it seems appropriate to furnish some background on the development of cities. In the nineteenth century a variety of forces combined to create a fairly standard pattern: a central business district surrounded by residential areas. Rail passenger transport was a major influence contributing to this pattern.[23] Whether service was provided by horse car, cable car, or electric street car, the inflexibility of transportation on steel rails was an incentive to centralize a city's economic activity.

The metropolitan areas of California, particularly Los Angeles, provide an excellent demonstration of the relations between the geographical pattern, the technology of urban transportation, and forces affecting the form of American cities.

The electric street car was, for all its inflexibility, a highly successful innovation. By 1906 it was providing some 90 percent of trips by urban passengers in the United States, most of whom – as usual – anticipated no change in their habits.[24] It was attractive to be able to make a rail trip to an area where one could work, shop, dine, and amuse oneself, and then to make the trip home. The ideal place to live was in an apartment near a car line.

The exception to this trend was the city of Los Angeles. The mild climate and the availability of adequate public transportation facilities caused a large percentage of people to prefer houses to apartments. Even though many of the numerous outlying subdivisions were covered with tumbleweeds after the boom of 1887, the house-living suburban population increased greatly. By 1950 the city developed a population density of some 5,000 persons per square mile, a third of Chicago, and a sixth of New York.[25]

After 1920 the city's industries had no strong pull toward the central business district of the city. Oil refining, orange growing, dairy farming, aircraft manufacturing, motion pictures and port activity do best outside a city. Other than light manufacturing and retail merchandising, industry joined the tendency to sprawl out where facilities, especially transportation, were convenient.[26]

Examination of the early trend toward urban sprawl must focus on the efforts and imagination of two men who played prominent roles in the development of public transportation in Los Angeles – Moses H. Sherman and his nephew, Eli P. Clark.

Sherman was a shrewd banker from Arizona who had experience with railroads. He and Clark purchased two Los Angeles rail lines, including Howland's electric line, and merged them into the Consolidated Electric

Railway. Using large amounts of borrowed capital and extensive credit, they began modernizing and electrifying their street cars. However, competition in the late 1880's proved too much for the continued success of this endeavor, and the company declared bankruptcy in 1892.[27]

With renewed capital, Sherman then bought back his bankrupt line (called the Pacific Railway) and proceeded to electrify the entire system. As a result of this renewed energy and ambition, Sherman dominated the public transportation enterprises in Los Angeles until September, 1898, when high operating expenses and a decrease in passengers forced him to sell his holdings to Henry E. Huntington. [28]

Meanwhile Sherman and Clark had turned to other rail interests which led to the formation of the first interurban rail facility in Southern California. In 1894 Sherman became interested in rail companies in Pasadena, a small village about 10 miles northwest of Los Angeles, and ultimately purchased all street car lines in that city.[29]

Sherman had been impressed with the success of interurban railways in other parts of the United States, and apparently intended to forge a line from Pasadena to Los Angeles. Using huge amounts of borrowed money, he and Clark begain incorporating local lines into the Los Angeles Terminal Railway Company which, on May 4, 1895, was opened with a great flourish. The immediate success of this line was due partially to luck, and partially to the fact that there were enough passengers to make the line financially profitable.[30]

Even before the completion of the Los Angeles Terminal Railway Company, Sherman and Clark began acquiring lines which would become the Los Angeles and Santa Monica Railway Company. When it was completed in 1896, it was also an immediate success, even though there were competing steam lines to the city. An indication of the potential value of electric interurbans was immediately apparent. The assessed valuation of the City of Santa Monica increased nearly three times within the next ten years, and the population jumped from approximately 2,000 in 1896 to more than 15,000 by 1920.[31] Most of the new residents in Santa Monica got their first views of the area from the windows of electric interurbans.[32]

Competition among many street car companies was booming when Henry E. Huntington arrived in Los Angeles in the late 1890's. Made vice-president of the Southern Pacific Railroad at the age of 19, the nephew of Collis P. Huntington had interests in various street car companies in San Francisco. In September of 1898 he purchased a group of rail companies which he combined to form the Los Angeles Railway Company. The Los Angeles Railway Company's lines were narrow gauge, and Huntington soon realized narrow-gauge lines did not have the capacity to deal with the burgeoning needs of Los Angeles.

What was needed was a system of standard gauge lines which could handle the necessary volume of traffic. This led Huntington, I.W. Hellman and other financiers to purchase the numerous existing rail lines in Los Angeles and the surrounding area which, when incorporated in November, 1901, formed the fantastic Pacific Electric Railway Company. Not only did their interests lie in the aforementioned areas, they extended to San Bernardino, Orange, and Riverside counties. A total cash expenditure of $451,400 was underwritten by the seven partners of the Pacific Electric, representing a total capital stock of ten million dollars.[33] Huntington held the controlling interest by virtue of his purchasing the largest amount of shares in the newly founded company.

The Pacific Electric immediately began expanding its lines throughout the Southland. Remi Nadeau writes in the March 1960 issue of *Westways,* "Soon Angelenos were watching amazed while H.E. put their city on lightning wheels. He purchased existing lines and built new ones, reorganizing schedules and routes, bought new cars and equipment. Not content with municipal traffic, he saw the need for a transit network tying together the collection of cities that surrounded Los Angeles." [34]

The amazing rate at which Huntington expanded the range of his street and interurban electric cars soon caused much speculation as to his ultimate goals. Huntington's association with the Southern Pacific and his relationship with Collis Huntington could not be overlooked. The Los Angeles *Times* editorialized, "If the usual Huntington methods are pursued – and when haven't they been pursued in the management of Huntington properties? – the foothold which the octopus managers have secured in the street-railway business of Los Angeles will prove to be one of the worse calamities that has ever befallen the community. [35]

A striking example of such mistrust is that on June 24, 1901 (before the incorporation of the Pacific Electric Company) the Los Angeles City Council heard a proposal that an electric street car line be permitted from Los Angeles to Long Beach, to be financed and constructed by a Huntington-led syndicate.[36] The request was presented by a representative of the Southern Pacific Railroad. Even though he was known to be a resident of Long Beach, eyebrows were raised at the mere mention of the Southern Pacific. The request was accompanied by the explanation that Huntington was merely an interested speculator who planned a large resort hotel to increase property values at Long Beach.[37]

Following much controversy and discussion in the city council, on October 30, 1901, that august body announced that a franchise would be prepared for bid. Following a few futile bids from competitors, it became

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The San Pedro Division runs through a fine agricultural and grazing country, to Long Beach, which is the finest for bathing on the Pacific Coast, and then for five miles along the ocean to San Pedro Harbor, where connections are made with the Pacific Coast Steamship Company, for all points North and South, and with the Wilmington Transportation Company for Catalina Island. At Terminal Island (East San Pedro) there is a fine Bath House and Pavilion, open all the year, and the finest still water bathing on the coast is found here; also boating on the bay, and sailing on the ocean with power launches or yachts.

The Pasadena Division runs to Pasadena, one of the most famous places as a Health Resort in California; also up to Altadena, at the base of the mountains, near Wilson's Peak, and, at Altadena, connects with the Pasadena Electric line for Rubio Canyon Pavilion, up the Incline to Echo Mountain House and the Lowe Observatory, enabling tourists to go from Los Angeles to the summit of the Sierra Madre Mountains in a very short time, and with but one change, from the steam to the electric cars at Altadena. From Echo Mountain to Mount Lowe there are well built bridle roads so that passengers going by the Terminal can easily make the trip in one day.

The Glendale Division runs through one of the finest valleys in South California, noted for its fine deciduous and citrus fruits, to Glendale, and on to Verdugo Park, the finest picnic grounds adjacent to Los Angeles.

There are 26 Passenger Trains a Day Between Los Angeles and Pasadena,
4 " " " " Los Angeles, Glendale and Verdugo Park,
6 " " " " Los Angeles, Long Beach and San Pedro,
6 " " " " Los Angeles and Altadena,

Latest Improved Equipment. Passenger cars heated by steam from engines. Solid Roadbed. Courteous Attendants.

Picnic Grounds at Verdugo Park, Devil's Gate, Millard's Canyon, Eaton's Canyon, and Rubio Canyon on the Mount Lowe Railway. Finest Mountain, Valley and Ocean Scenery in South California.

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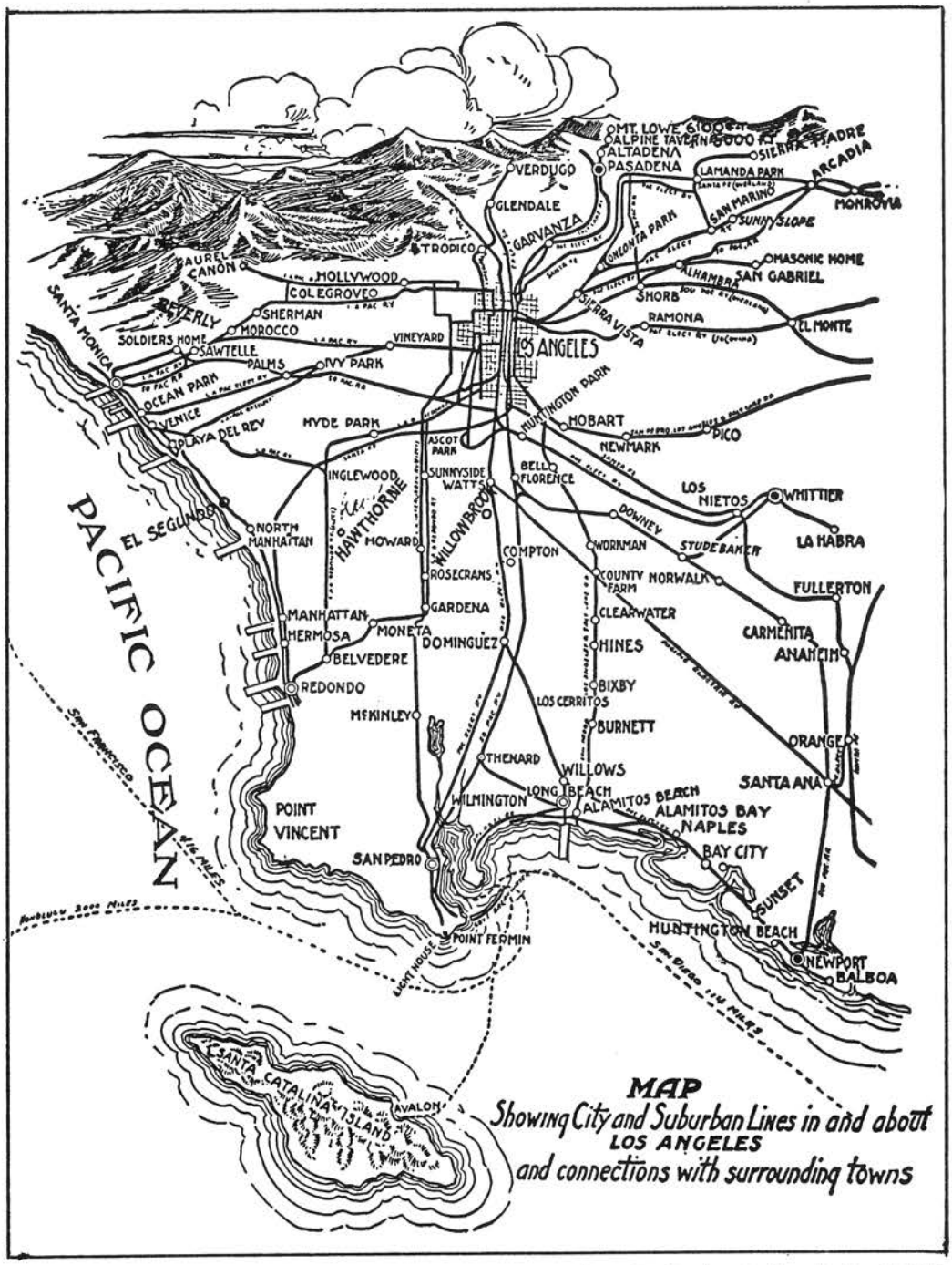
W. WINCUP, Gen'l Freight and Pass. Agent.
LOS ANGELES, CAL.

from G. Wharton James, *Tourists' Guide Book to South California,* 1894



from *The Los Angeles Tourist,* March 1918

apparent that Huntington would not be out-bid, so the franchise for his first interurban line was granted.[38] The main issue was finally compromised, not because of a general dislike of more Southern Pacific tracks on the ocean front or a genuine uneasiness regarding the Huntington-Hellman syndicate, but because it was generally recognized that such a line would be beneficial to Long Beach. Spencer Crump quotes an article from the Long Beach *Tribune* of August 17, 1901:

> It is very evident that with the coming of the electric railways the traffic and profits of the (steam) lines will be materially reduced and this is awakening hostility to the innovation. These roads have enjoyed the right of way so long and given the least possible service for the patronage received for so many years that the new era...of electric cars....sets hard upon them. Long Beach has been especially at their mercy.[39]

No doubt the support of the public and other interests in Long Beach prompted editorials such as that quoted, and final approval for the franchise allowed construction of a line from Los Angeles to Long Beach. Huntington's bid of $9,600 caused rejoicing in the latter city. Not only would Long Beach get her interurban to Los Angeles, the franchise payment would balance the city budget.[40]

It is ironic that this, the first interurban line of the Pacific Electric Railway, should also be the last. When the last Pacific Electric car made its last run to Long Beach on March 31, 1963, the days of the electric street car were a thing of the reminiscent past in Los Angeles. And in light of current controversies over rapid transit, few of the proponents realize or care to remember that as late as 1946 Los Angeles had a truly great rapid transit system in the Pacific Electric. It had become the world's largest in two decades.

It became apparent immediately after incorporation that the Pacific Electric was doing more than merely provide public transportation in and around Los Angeles. So much so that the Los Angeles *Times* sent a cub reporter to interview Henry Huntington in the hope that his aims and goals might be revealed. The reporter, Harry Carr, writes of that interview:

> He (Huntington) gave me the first big scoop I had ever had on a newspaper. The city editor knew he had come to town with a party of financial men and all the experienced reporters were out; so he had sent me – with obvious misgivings....we sat down on a bench.
>
> "What is it you want?" he said gently.
>
> "I – I don't know, sir. The city editor sent me to get a story."
>
> "Well, now let's see. Do you think this would be a story?"

> Whereupon he handed me some information that stood the town on its head and sent up the curtain for a new and one of the greatest acts of our pueblo. Mr. Huntington was about to start the great system of interurban railroads that now spreads like a network all over Southern California, annexing them all in a way to Los Angeles.[41]

The rapid growth of the Pacific Electric during the next decade was, in part, responsible for the continued growth of the metropolitan area of Los Angeles. Since 1880 Los Angeles had grown in area from 29.21 square miles, nearly that which it was when incorporated, to 89.61 square miles in 1910. In addition, the population of the city had nearly tripled in the ten years from 1900 to 1910.[42]

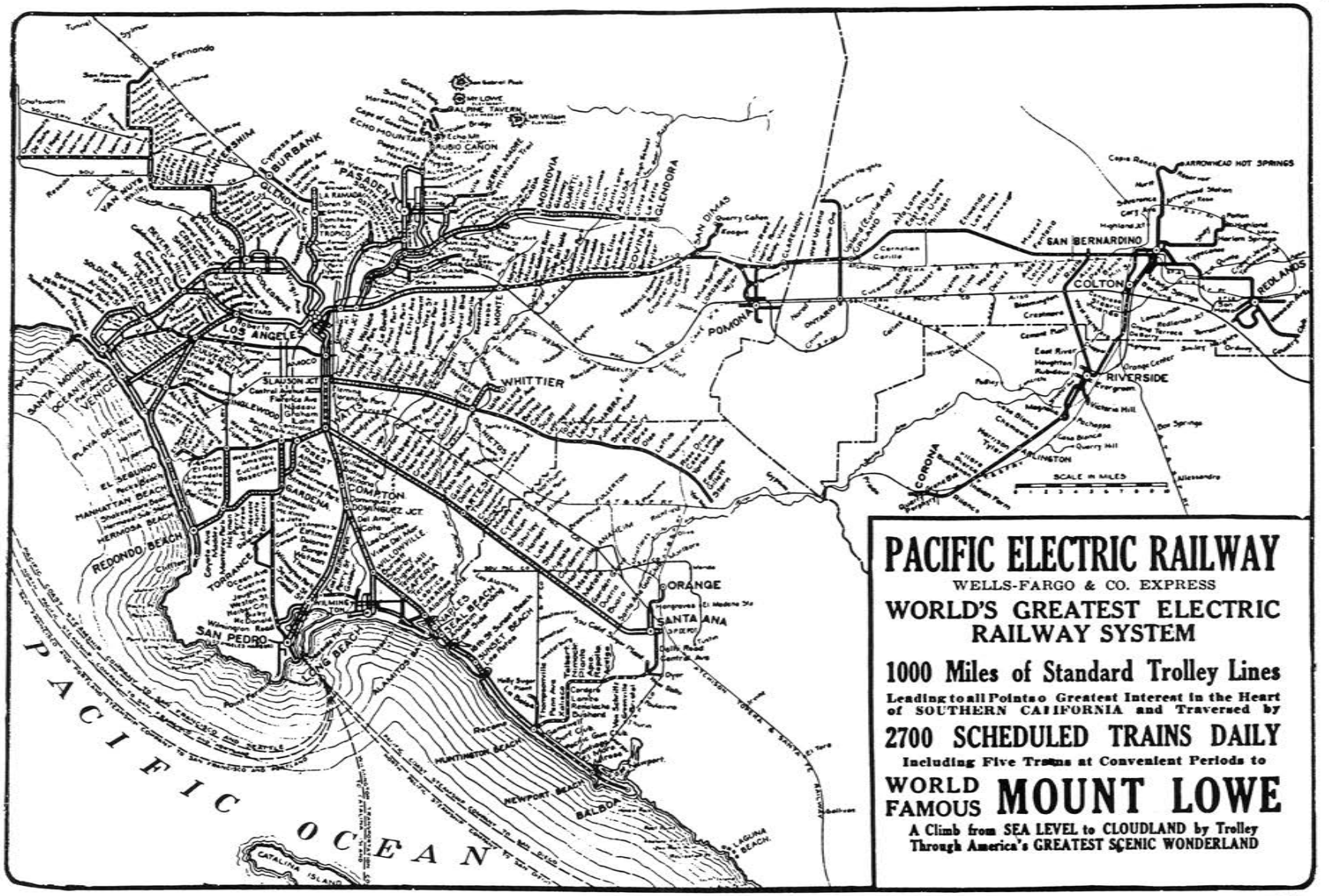
Remi Nadeau states that the Pacific Electric, more than anything else, was the forerunner of a new real estate boom in Los Angeles; that, "As one observer put it, 'the clang of the bells of Huntington's cars had been a call to action for the city of Los Angeles'. Wherever the track-layers carried their rails, the subdividers were close behind with an armful of flags. The merest hint that 'Huntington is buying' was the trigger for a local real estate frenzy.[43]

An article in the Los Angeles *Examiner* sums up Huntington's apparent philosophy about his masterful and massive expansion: "It would never do for an electric line to wait until the demand for it came. It must anticipate the growth of communities and be there when the homebuilders arrive – or they are very likely not to arrive at all, but to go to some section already provided with arteries of traffic. [44]

Huntington continued to expand the Pacific Electric, taking over established lines and leasing others, until he had built the nucleus of the entire Southern California system, with interurbans leading to all points around Los Angeles. He shared controlling interest with the Southern Pacific until 1911 when, following a disagreement with Collis P. Huntington's successor, E. H. Harriman, who had bought his remaining stock in the Southern Pacific in 1901, and other factors forced him to sell his interest in the Pacific Electric.[45] The Southern Pacific now owned the entire Pacific Electric system.

The "Great Merger", completed on September 11, 1911, incorporating eight existing street car companies, did not signal the end of expansion for the Pacific Electric, which now dominated the interurban facilities. Even though the Pacific Electric now belonged exclusively to the Southern Pacific, the name was retained because of its popularity, along with the red color of the cars, originated by Huntington.

The merger left Huntington in full control of the Los Angeles Railway, the



Pacific Electric Company map c. 1925

remaining system in his empire. The shiny green or brilliant yellow cars (the color depended on the routing) of the Los Angeles Railway provided local service, as distinct from the interurban lines of the Pacific Electric.[46]

There was considerable cooperation between Huntington's Los Angeles Railway and the Pacific Electric Company after the Great Merger, and in many cases they shared right-of-way by using a system of three or four rails. Huntington's cars, being a narrow gauge, would use one outer and an inner rail, while the big red cars would utilize the outer rails. The schedules of the two lines were coordinated to reduce traffic congestion.[47] Even though the Pacific Electric began to show a decline in profits during the years immediately following the Great Merger, Huntington's Los Angeles Railway remained a profitable operation showing increased patronage.[48]

An "outlaw" in the field of public transportation made its appearance in Los Angeles in 1913 in the form of the Jitney taxis.[49] Increasing numbers of automobiles in Southern California made many second-hand autos available. It soon became apparent to enterprising souls that the transporting of fellow human beings by auto could be profitable. In describing the Jitney trade, Rockwell Hunt writes in *California, Oxcart to Airplane,* that machines of the touring-car model and in all stages of disrepair, "...were made to carry unbelievable loads of human freight, and at the rush hours, they almost choked the city streets for numbers." [50] For about three years Jitney service increased because many drivers would take fellow workers with them as a means of alleviating the expense of operating their automobiles. Other entrepreneurs of the Jitney trade included students who were quick to take advantage of extra money, and the unemployed who saw an opportunity to make a sparse and sporadic living.

It was not long before the Jitneys became a serious threat of competition to the street car lines. Not only was there the thrill in crowding into a dilapidated automobile, but the Jitney could be a genuine convenience. It was not an inflexible carrier bound to steel rails. The automobile could make its way to areas and locations that the street car could not. The Jitney was the earliest form of taxi service in Los Angeles, not so much by design as by accident.

By 1916 it was apparent that the solution to the jumbled confusion of individuals providing non-scheduled trips all over the city was to consolidate their efforts. It was not unusual to see half-loaded cars going in every direction, and with no semblance of organization or any coordination. Soon many of the individuals and their operations were combined and, in 1916, there were several groups of people formed to handle not only city runs, but interurban as well.[51]

Use the Street Cars

TELL the operator of the Los Angeles Railway Information Bureau where you want to go. He will tell you what car to take and where.

Telephone Main 4187 or 108-06.

Between 5:30 P. M. and 8 A. M.; on Saturday afternoon, Sunday and holidays, call the night number, Pico 4629.

Folder giving routes and general information mailed on request.

from *The Los Angeles Tourist,* July 1922

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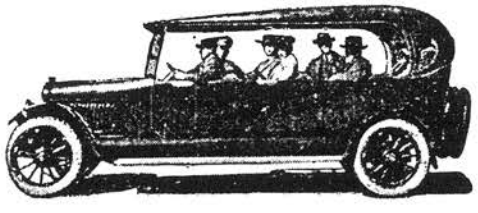

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Seeing Los Angeles 25 miles Parks, Boulevards, Etc. 9 a. m. 10 a. m. 11 a. m. 4 p. m. Fare $1.00

Seeing Pasadena and Orange Groves, Millionaires' Row and and Cawston Ostrich farm, etc. 9 a. m. 10 a. m. 12 noon 3 p. m. Fare $1.50

Seeing Hollywood and Beaches showing you the Moving Picture studios. 12:45 and 2 p. m. Fare $1.50

Topango Canyon and Universal City Trip
9 a. m. daily. Fare $3.00

Riverside and Redlands, Mount Bubidoux, Glenwood Mission Inn and Smiley Heights. 8 a. m. daily. Fare $5.00

San Diego and Tia Juana, Mex.,

from *The Los Angeles Tourist,* April 1921

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Main 6078

We Rent 7 Pass. Hudson Super Sixes Without Drivers For $1.50 Per Hour

from *The Los Angeles Tourist,* December 1918

Because of the effects of automobile and bus competition on the railroads and street car lines, the 1917 California State Legislature created the California Railroad Commission with the power to regulate all freight and passenger common carriers.[52] In granting applications for permits to operate bus and truck lines approval was based on the adequacy of existing rail facilities to a given area.[53] George Hilton reports a typical decision of this nature in *Electric Interurbans.* A decision that was rendered by the California Railroad Commission in 1922, as quoted, said, "....in denying an application for bus service competing with the Pacific Electric line in the San Bernardino area, (the commission) stated that there must be clear evidence that the existing facilities were inadequate or unsatisfactory before competition would be allowed."[54]

Because of favorable decisions regarding competition, and because the population of Los Angeles was continuing to grow and was widely dispersed, the Pacific Electric did not feel the effects of bus and truck rivalry as much as other major companies in different areas of the United States.[55] Having weathered the competition most successfully, the Pacific Electric began to look at the potential of busses as a supplemental part of its system. In 1923 the Pacific Electric established its own bus system in conjunction with the Los Angeles Railway."[56]

This new venture was named the Motor Transit Company, and although it was not realized at the time, was to provide the flexibility that street cars could not. In less than forty years it would replace the "parent" street car lines.

The continued popularity of the automobile became more apparent after 1910. With but an estimated 40,000 private vehicles in Los Angeles (a ratio of one for every three families) in 1910, the figure rose to nearly one and one-half million by 1949, when eighty percent of all transportation was made by private car!![57]

The effect of automobile competition was felt especially hard by 1919 when Paul Shoup, president of the Pacific Electric, described, "... a desperate situation of electric lines in California... The Jitneys and motor trucks competing with electric lines... (are) not taxed for maintenance, but utilize the same pavement."[58] The situation was not unique to Los Angeles, because in 1920 there were 60 passenger cars for every electric street car in the United States.[59] Nonetheless, the end of the electric street cars as a public carrier could have been predicted at this time, even though the Pacific Electric had not reached its peak of operations.

The growth of the city of Los Angeles seems to have kept pace with the expansion of the electric car lines, especially after 1920. The city's popula-

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TOURIST AUTOMOBILE RENTAL CO.

1724 So. Grand Ave. **Phone 22359**

from *The Los Angeles Tourist,* January 1920

The People Ought to Know

The service rendered by a street railway is in a very intimate way the people's business. Such service is rendered for the public, at the direction of the public, under the control of the public and to the extent the public demand is backed up by public support.

The public therefore has an unquestioned right to inquire into the manner in which this service is rendered.

No inquiry that is one-sided can be satisfactory. Knowing of both sides of any question is essential to an impartial, just decision.

The Los Angeles Railway, one of the biggest industries of the state, devoted to the convenience and necessity of the great majority of the 700,000 people of Los Angeles, has filed with the State Railroad Commission a request for a rehearing on its application for an investigation of its service and financial condition, and for an order authorizing it so to operate its system and change its rates that the income will be sufficient to pay the cost of the service—including needed improvements.

In the belief that many people want to know more intimately these facts. the railway's Public Relations Department is having this document printed in pamphlet form for distribution to those who may desire to read it. It will be mailed or sent to all who ask for it either by telephone or by postcard.

Inquiries or requests should be sent to J. G. Jeffery, Director of Public Relations, Los Angeles Railway, Broadway at 11th Street—telephone Main 4187 or 10806, Station 61.

G. J. KUHRTS
General Manager
Los Angeles Railway

from *The Los Angeles Tourist,* July 1921

tion was slightly less than 577,000 in 1920 (Los Angeles County had nearly 936,000), and the city's figure reached more than a million by 1930.[60] By the same token, by 1930, the city more than quadrupled in size to a total area of 441.70 square miles.[61]

The Pacific Electric Railroad reached its peak of operations between 1921 and 1925 – experts disagree on the exact date. According to a poster issued by the company in 1921, it boasted of being "The World's Greatest Electric Railway System, with 1,200 miles of standard trolley lines, 2,700 scheduled trains daily, including five trams at convenient periods to world-famous Mount Lowe." [62]

There is much speculation as to the cause of the decline of street cars in Los Angeles and the take-over by busses, especially in light of the present-day controversies concerning the need for more efficient and massive rapid transit facilities. Suffice it to say that a myriad of reasons brought about the downfall of the street car, not only in Los Angeles, but in the rest of the country as well.

In Los Angeles the completion of good, all-weather roads at an early date provided an opportunity for the automobile to be the desirable means of transportation for the average family. The street car was a means of entertainment and travel to interesting points for masses of people in the early twentieth century, but it no longer provided an exclusive method of sightseeing and enjoyment. People could make the same trips in their own cars, and they did not need to rely on the inflexible routes and schedules of street cars. Perhaps the motor car was the main reason for the decline of the street car.

Whether the automobile alone was responsible for the downfall of the street car as a successful method of mass public transit, or whether the rising costs of maintenance and government regulation contributed significantly to the elimination of rail transportation, is a matter of conjecture and difference of opinion.

Another possible cause for the decline of the Pacific Electric system in Los Angeles is perhaps the situation that it helped create itself – a widespread decentralization of industry and population. People no longer needed to enter a central area for shopping, entertainment, business or industry. George Hilton also explains that, in addition to the aforementioned reasons, the Southern Pacific, owners of the Pacific Electric, let the equipment depreciate and reach a state of poor condition as the passenger load dwindled.[63]

Whatever the reasons for the decline of an efficient public transportation system in Los Angeles, there can be little doubt as to the important part it

played in developing a sleepy little pueblo into a booming metropolis. Notwithstanding, when people today are demanding more efficient public transportation systems, there are few who look back to the days when Los Angeles had a most effective and popular public transportation system in the Pacific Electric Railway and the Los Angeles Railway Companies. On March 31, 1963, when the last red car made its last scheduled run, the magazine, *Los Angeles*, carried an article titled, "Goodnight, Sweet Streetcar." It stated, in part, "The irony is that 'Mr. Huntington's Wonderful Red Cars' may turn out to be the last truly Rapid Transit we will ever know."

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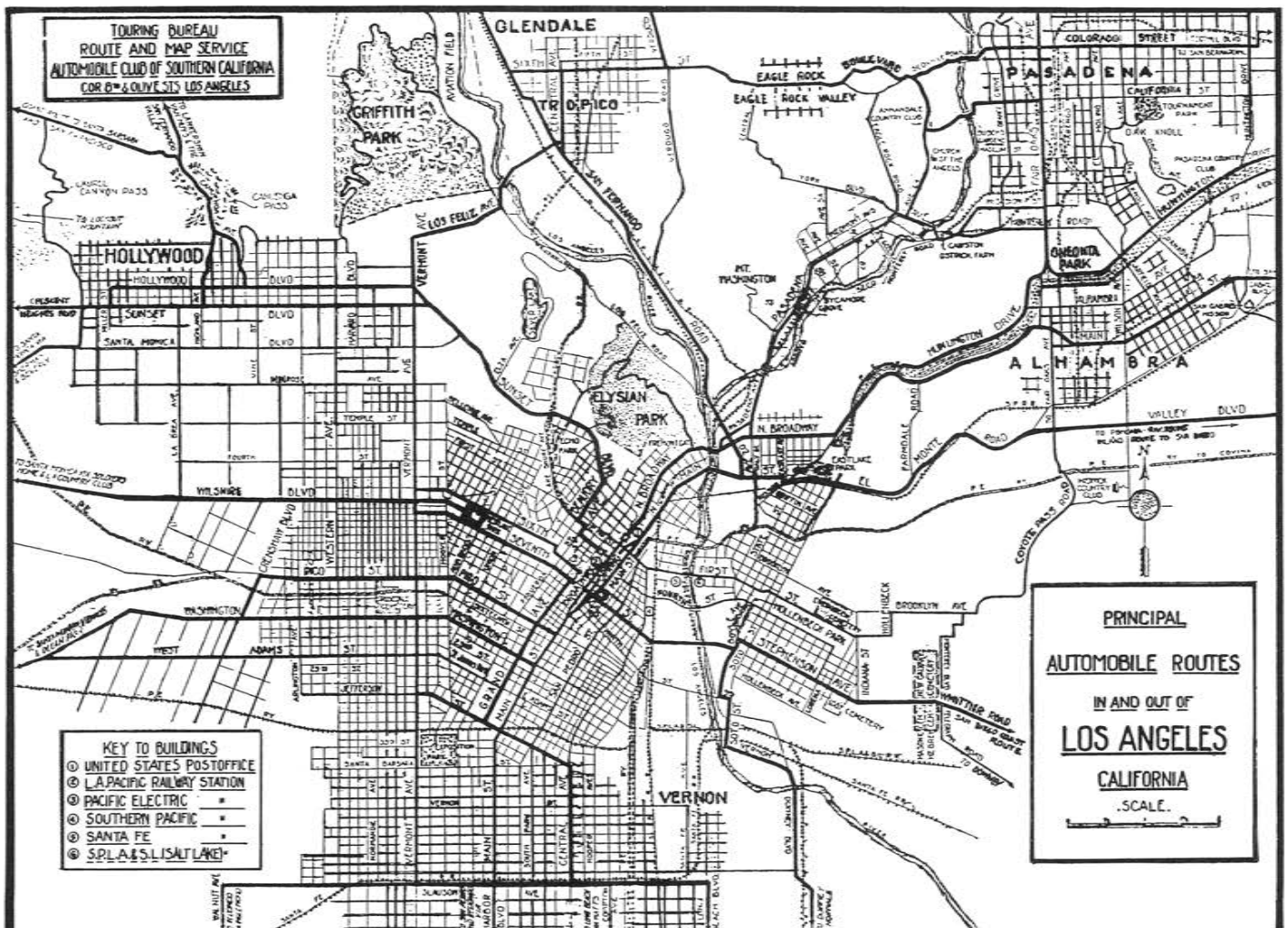
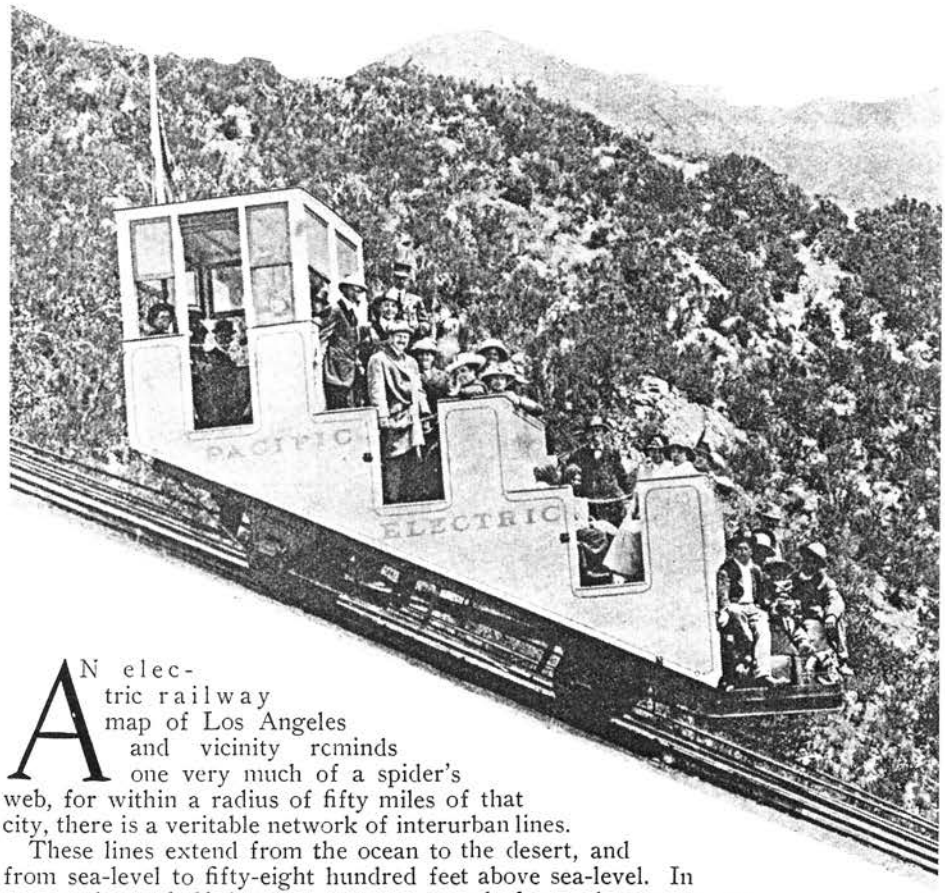


Courtesy of Automobile Club of Southern California, © 1913

INTERURBANS *and* LAND VALUES

By Charles Alma Byers



AN electric railway map of Los Angeles and vicinity reminds one very much of a spider's web, for within a radius of fifty miles of that city, there is a veritable network of interurban lines.

These lines extend from the ocean to the desert, and from sea-level to fifty-eight hundred feet above sea-level. In two and one-half hours one may travel from the warm sea breezes, from a view of bathers battling with ocean breakers, to the top of a snow-capped mountain—Mt. Lowe—where overcoats are always in season.

Although there is an independent system which handles the local traffic of the city of Los Angeles, the Pacific Coast electric interurbans operate a number of city lines. Only a few of these are in Los Angeles, the most of them being in the small neighboring cities and towns.

The lines, extending for a radius of about fifty miles over territory surrounding Los Angeles, accommodate an area of approximately twenty-five hundred square

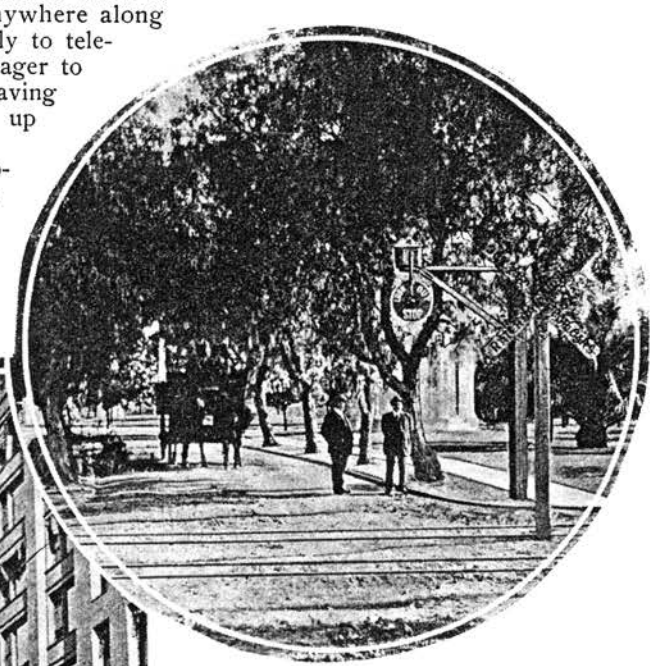
From *Technical World Magazine,* June 1914

miles. Over one thousand miles of track are in operation at present, and there is considerable additional trackage in the course of construction. The longest single line, extending to San Bernardino, which has just been completed, is, with its local connections, approximately seventy miles long.

In addition to the passenger service, the system is equipped for express and freight carrying. In fact, this department is so well organized that a rancher living almost anywhere along one of its lines needs only to telephone to the freight manager to make arrangements for having his commodity picked up almost at his door.

Sixty-six electric locomotives are used, ten being of the mogul type —that is, of one thousand horsepower, capable of drawing a load equal to a steam railway engine. The freight cars are of standard railway size.

This vast and complete transportation system has had a marvelous effect on the garden ground which surrounds the metropolis of Southern California. The land is as expensive as that of a city suburb; the rancher who settled here a few years ago and made a success of his farm has become wealthy and has all the advantages of city life coupled with the quiet life of a rural citizen. It takes him but a short time to get to the heart of a great city for his amusements and to transact his business; he can ship his fruit and grain directly to the consumer by fast interurban freight, or get his products to the city in answer to an order from a city dweller which may have arrived over the telephone in the morning.



THE AUTOMATIC FLAGMAN
Crossings are protected by this device invented by an employe. It rings a bell and wigwags.

A DOWNTOWN STATION
One of the principal terminals in Los Angeles. The company has its offices above the terminal.

Concrete examples of the advances in land values are furnished by the residents. Before the Long Beach line was built in 1902, one farm sold at two hundred and twenty-five dollars an

FOR THE RANCHER'S WIFE

Another factor in bringing up land values is the passenger service. The farmer who lives fifty miles out can shop frequently in a large city and waste very little time traveling.

FOR THE SUBURBAN RANCHER

The freight service has brought land values up in magical fashion. The products of the farm can be delivered over the electric road daily.

acre. Six months later it was sold at five hundred and twenty-five dollars an acre. Today, since efficient transportation has been developed, the land has become so valuable that it has been cut up into lots selling at a rate of forty-eight hundred dollars an acre. Along the Covina line land jumped from one hundred and sixty dollars to thirteen hundred and fifty dollars an acre. Along other lines the same magical leaps in values have been made.

The same sort of development has been made in other localities which have been favored by the interurban. The country around some of our eastern cities and about Chicago and Indianapolis has blossomed out, relieving city congestion, making small truck farms of tremendous value to their owners and to the consumer, but best of all, adding the wholesome effect of the country to the atmosphere of the city.

Land promotion is nothing new in Los Angeles or the Far West. It has been going full swing for over a century. A full hundred years and more of wheeling and dealing. However, up until the years since World War II it was the real estate promoters who paid for the transportation systems, not the general tax payers who are being asked to foot today's bill to replace the original systems which have been systematically obliterated.

K.F.S., Jr., Editor.

No Car Is Quite Itself without a Concrete Road

What makes a "crack" train? The roadbed as much as the rolling stock.

So with your automobile. Any car is a *better* car on a good road.

The car with the highest gas mileage has a *higher* mileage on Concrete.

The car with the quickest "pick-up" picks up *quicker* on firm, unyielding Concrete.

The best non-skid tire holds *better* on the gritty Concrete surface.

The car with the lowest depreciation has a *lower* depreciation on Concrete.

Motorists know these are facts—and motorists, if they insist, can get the kind of roads they want.

Our Booklet R-3 tells other interesting things about Concrete roads. Write for your copy.

PORTLAND CEMENT ASSOCIATION
548 South Spring Street
LOS ANGELES
A National Organization to Improve and Extend the Uses of Concrete
Offices in 23 Other Cities

from *Touring Topics*, October 1922

Testing California's Highways – The Automobile Clubs versus the State Highway Commission, 1919-1923

by ABRAHAM HOFFMAN

AT THE BEGINNING of the twentieth century the American people found themselves in possession of a remarkable new toy that in a few short years caused a revolution in the economy and lifestyle of America. This new toy, the automobile, offered both opportunities and challenges for the new century. As increasing numbers of people learned to drive and bought automobiles, it became very obvious that the opportunity to drive off into new adventures was challenged by the lack of roads on which to make the trip. A nation that had grown accustomed to making business or pleasure trips by railroads and streetcar suddenly found that muddy trails and bridgeless rivers created serious impediments to the movement of automobiles. Throughout the United States a general demand arose for the construction of an adequate highway network.[1]

Although the Federal government eventually responded to the nation's needs by creating an interstate highway system, the most immediate concern came on the state level, particularly in regions where states were geographically large and population relatively small but growing. No state fit this descrip-

tion better than did California, especially in the southern part of the state, where a love affair between driver and automobile had immediately blossomed – and, though a bit wilted by air pollution, high gasoline prices, and rush hour bottlenecks, has never failed. In 1919 Los Angeles County's automobile registration numbered about 140,000 cars, a figure that reached three quarters of a million by the end of the 1920s. At the onset of the love affair, California motorists had no problem with traffic lights, stop signs, one-way streets, or pedestrian crossings, for none of these restrictions on driving existed. Unfortunately, neither did adequate roads, a problem for which Californians demanded an immediate remedy. [2]

A proposed cure for the road problem (or non-road problem, since automobile-quality roads connecting California cities did not exist) was quickly found in the state capital, as state lawmakers included road-building as part of their progressive reforms for California. The legislature that created the initiative, referendum, and recall, adopted woman suffrage, and invented cross-filing, also established the California Highway Commission to implement voter approval of an $18 million bond issue passed in 1910. This first state road system proposed two main highways for California, one up the interior valleys and the other along the western slope of the Coast Range, both to reach from Mexico to Oregon. From these main arteries the state intended to build lateral roads connecting every one of the fifty-eight county seats, a task that would cost far more than the bonds could possibly cover. To their credit, the first members of the State Highway Commission tried hard. They persuaded reluctant county supervisors to provide rights of way, obtained Portland cement, sand, rock, and gravel at the cheapest prices possible, and even succeeded in getting a bargain rate from the Southern Pacific Railroad to transport the construction materials. When bond sales moved too slowly, the commission approached the county supervisors again and induced them to purchase the bonds at par value. Thus fortified, the state began constructing an estimated $50 million worth of roads – with $18 million in funds.[3]

Recognizing the need for additional funding, the voters of California approved a second bond issue in 1916, to the sum of $15 million. Supporters of the 1916 bond issue included businessmen and bankers from throughout the state. They argued that people were coming to California by automobile, attracted by the state's well-publicized charms and recreational opportunities. During the previous year, when San Francisco and San Diego had offered expositions commemorating the completion of the Panama Canal, some 30,000 adventurous automobiles had visited California. In southern California the Automobile Club of Southern California created a Committee

of 100 to work for passage of the bonds. Standish L. Mitchell, the Automobile Club secretary, predicted the bonds would help "complete a paved route from the Imperial Valley through southern counties to the coast at the Los Angeles harbor; complete the inland route to San Diego; the coast and inland routes to San Francisco and a road southward through the Owens Valley."[4]

Mitchell and his Automobile Club, along with other supporters of the bond issue, did not anticipate that the second bond program would run afoul of U.S. entry ito World War I. Construction costs soared, and shortages of labor and materials plagued the California road construction program. At the war's end the California Highway Commission had no funds left for continuing construction and maintenance of the state's roads. Improvements in automobile technology and the rapidly growing number of automobile registrations, however, dictated the need for still more funding for road construction. "The public now in thinking of or speaking of a State highway has in mind an expensively paved road," remarked California State Highway Engineer Austin B. Fletcher. "In general it may be said that the days of gravel or waterbound macadam are no more."[5]

In January 1919 a group of men representing chambers of commerce, automobile clubs, and county boards of supervisors, with the blessing of Governor William D. Stephens, decided to lobby for passage of yet another bond issue. They organized a meeting in San Francisco, held on February 12, inviting representatives from throughout the state. Forty-nine of the state's fifty-eight counties sent delegates. As the meeting progressed, the amount of funding this third bond issue was to provide increased from $10 million to $20 million, and finally up to $40 million. The price escalation was apparently due to everyone's desire to place his own county's pet road into the state system. Impressed by the broad spectrum of support for the road program, the legislature approved the proposal. When the State Highway Commission pointed out that it would be completely out of funds long before the bonds could be approved in the next scheduled election – in November 1920 – Ulysses S. Webb, the state's Attorney General, solved the problm. He proposed a special election on July 1, 1919, to provide the needed $40 million and, to make it legal, the same election would amend the state constitution to that effect! California's voters went along with the idea and approved the state's third highway bond issue in less than ten years by a margin of better than seven to one.[6]

Disillusionment soon set in among the supporters of road construction in California. The state's two major auto clubs, the Automobile Club of Southern California (ACSC) and its northern counterpart, the California State Automobile Association (CSAA), in monitoring the road-building

program of the State Highway Commission, expressed concern over how the commission was spending the funds provided by the three bond issues. Although the bond issues had given a total of $73 million for road construction, the commission was only too aware that the money could not meet the costs of building all the roads that everyone wanted. Moreover, the first highways built with bond funds had not been designed to withstand the abuse of heavy trucks and other large vehicles that were now using the highways for commercial purposes. Some roads that were barely five years old were already deteriorating. "I know of no type of pavement which can be truly called 'permanent', and the expression must be considered as relative only," State Highway Engineer Fletcher had noted at the beginning of the state's road construction program. "I know of no pavement or roadway which does not require from the day it is constructed more or less expenditure for maintenance."[7]

By May 1920 the ACSC was finding Fletcher's viewpoint too simplified an explanation for what was happening to the state's new roads. Besides, escalating costs were cutting into the amount of construction that the bond issues could accomplish. When the State Highway Commission revealed that only 62.5% of the projected highway system could be built with available funds, the Automobile Club of Southern California felt it had been betrayed. Having campaigned strenuously for voter approval of the 1919 bond issue on the pledge that all roads named in the bond issue would be built, both the ACSC and the CSAA declared their opposition to a program "which offers five-eighths of fulfillment on a solemn undertaking of eight-eighths performance."[8]

The auto clubs determined to make their views known to Governor Stephens and the Highway Commission. On May 26, Henry W. Keller, chairman of the ACSC's Roads and Highways Committee, along with L.A. Nares, representing the CSAA, made an unprecedented recommendation to the governor. With labor and construction costs at a postwar high, the auto clubs urged that road construction be halted until the shortfall in the funds authorized to build the projected road system could be resolved. The clubs, "which have done so much for the cause of good roads," felt it necessary to ask, "in the interest of the state as a whole, that roadbuilding be suspended until a more normal condition of affairs in reached," noted an editorial in *Touring Topics,* the ASCS's magazine.[9]

The response of Governor Stephens and the State Highway Commission shocked the auto clubs and the supporters of quality highways. Instead of halting road construction, the Highway Commission adopted a policy of building as many miles of roads as possible, sacrificing quality for quantity in

an attempt to fulfill the promise of the 1919 bond issue. To accusations that some roads were already deteriorating, Newell D. Darlington, chairman of the State Highway Commission, retorted that 90% of the highways built in the state to date were "as good as the day they were laid."[10]

Highway engineering was still very much an embryonic field, and for the state to engage in such a roadbuilding program seemed to the auto clubs the height of folly and extravagance. The ACSC and CSAA therefore decided to invite every county board of supervisors and county engineer's office to send representatives to a special meeting on July 29, 1920, to share ideas, identify the most serious highway problems, and make recommendations to the State Highway Commission. The meeting was an open one, and in fact Commissioner Darlington had promised assistance for any investigation the auto clubs might conduct. After all, the commission was really stuck between the proverbial rock and a hard place: whether to construct fewer miles of high-standard roads or more miles of lower-standard highways. A careful, objective investigation might well point a way out of the dilemma.

The July 29 meeting proved very successful for its sponsors. Both the ACSC and CSAA agreed to underwrite the cost of a detailed investigation into the problem of deteriorating state highways. Charles Petit, Ventura County highway engineer, submitted a list of twelve problems found in construction of concrete roads. His list, adopted by the meeting as a basis for investigation, included such difficulties as formation of potholes due to improper concrete mix, fracture of the concrete slab under heavy loads, irregular settlement of the subgrade, and other examples of road deterioration. To head the investigation, the auto clubs employed Joseph B. Lippincott, a prominent Los Angeles engineer who had worked as a consultant on various ACSC highway projects. Appointed to assist him were Walter C. Howe, a consulting engineer for the CSAA; H. J. Brunnier, a San Francisco consulting structural engineer; and Charles Derleth, Jr., a University of California civil engineering professor. The cost of the investigation, which was estimated to take from three to six months to prepare, was projected at $8,000-10,000.[11]

The actual investigation took almost six months to complete. Four subcommittees were established to report on laws, maintenance, sub-base, and thickness, width, and reinforcement of concrete slab. Their conclusions were put into an exhaustive report totaling nearly 500 pages of charts, maps, lists, and experiment results, all of which pointed to a foregone conclusion: "The Commission has lacked foresight and vision by failing to carry out adequate and sufficient experimentation, research, and investigation on a broad and comprehensive scale."[12]

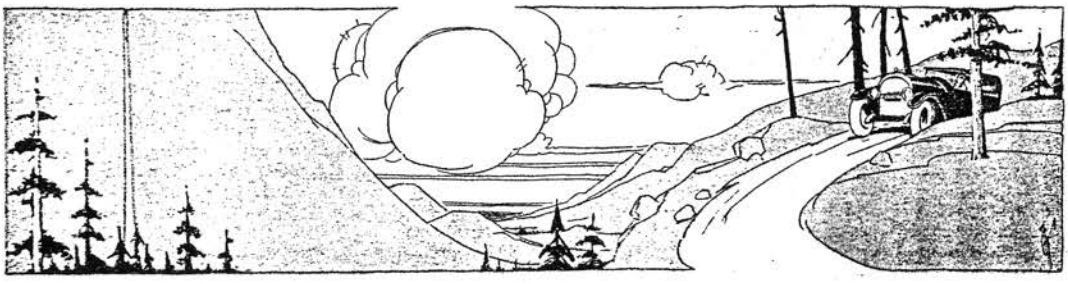
The report faulted the Highway Commission for using the same type of

construction throughout the state despite regional differences in traffic, subsoil, and drainage requirements. County highway departments had received little aid from the Highway Commission in meeting local needs for information on the state road system. Concrete roads four inches thick were falling apart throughout the state, yet the commission continued its four-inch program even as other states were increasing the thickness of their concrete roads to as much as eight inches. Problems in accounting, payments for supplies, relations with private highway contractors, and keeping of traffic records were among commission shortcomings cited in the report. In addition, the commission had failed to deal with the abuse given the highways by overloaded trucks. "It is apparent that if truck operators are permitted to use the highways without police supervision a few unreasonable truck drivers or operators will wreck any road system that may be built," the report stated. In placing blame for the state of affairs, the report concluded, "The Commission and its engineering staff must take direct responsibility for the present highway situation. Judging from past experience, all future work should be subject at intervals to careful inspection and review by competent representatives of the people." [13]

The Joint Report was harsh medicine, but the auto clubs took pride in claiming it to be "the most extensive and comprehensive study that has been made in the United States of this important subject to date." So impressed were the auto clubs that they agreed to its publication in book form and circulated to other states, colleges, and the Federal government as a reference work. The cost of the investigation had topped $30,000, and by all standards the auto clubs believed it an impressive accomplishment.[14]

Meanwhile, Governor Stephens had little expectation that the auto clubs' Joint Report would support his Highway Commission's policies, given their record of criticism of the state's roads. He declined to appoint a representative to the auto clubs' investigation, explaining he had already endorsed a Highway Commission request for a study of California highways to be undertaken by the Bureau of Public Roads in the Federal government's Department of Agriculture. The bureau's investigation took approximately the same period of time as the auto club's inquiry, and its report was released in December 1920. Like the auto clubs' report, the bureau report contained extensive data. Although there were critical comments as to road conditions, other statements in the report indicated approval of Highway Commission policies. The report concluded that despite some road failures, California had produced a large mileage in serviceable roads that could be considered beneficial to the state.[15]

Californians now had two reports on the conditions of their highways, one



from *Touring Topics,* October 1922

very critical, the other somewhat favorable. Joseph Lippincott, however, pointed out that the State Highway Commission was using selective quotations from the Bureau of Public Roads report to claim approval of its policies. "The Federal report deals with the situation in the utmost kindliness, but it contains severe criticism of the construction of the State's highways and emphatically recommends reform in essential and basic particulars," he said. "Furthermore, the Federal report coincides with that of the automobile clubs in most particulars." Thus both groups made use of the Federal report to support their views.[16]

Until the summer of 1921 supporters of both the auto club and Highway Commission viewpoints alike had agreed that the dispute was a philosophical one, with no intimation of corruption or graft in highway construction. The continuing stalemate, however, was causing people on both sides to lose patience. The ACSC and CSAA maintained the commission was building bad roads; the commission, convinced it was pursuing the best possible policy under difficult circumstances, turned a deaf ear to auto club complaints, preferring to cite the more favorable parts of the Federal study. Faced with inadequate funding and determined to complete the projected highway system, the commission endorsed state taxes on automobile tires, gasoline, and vehicle registrations. Seeing these proposals as a means of augmenting commission funds while inferior roads were still being built, the auto clubs lobbied successfully for the legislature to defeat the tax bills.[17]

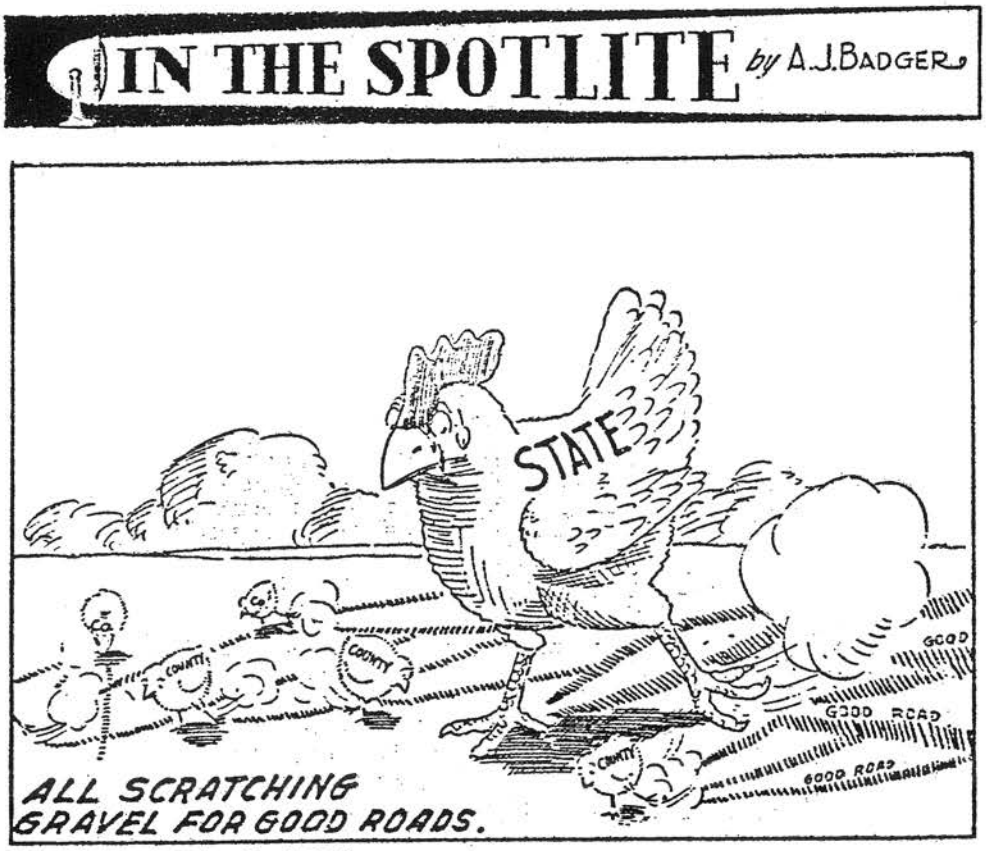
Possibly as a way of blunting the influence of the two auto clubs with their combined membership of over 60,000 motorists, the State Highway Commission gave its support to the founding of a new motorist organization, the California Highway Association (CHA). The CHA ostensibly was formed to provide information about highways to motorists, but the auto clubs soon perceived it as the tool of the Highway Commission. The *Los Angeles Times,* published by Harry Chandler – an ACSC director – denounced the CHA, claiming the Highway Commission intended to use the organization "as a weapon with which to whip the automobile clubs into passive obedience and that two years hence these interests hope to have a powerful association

shaped to jam through the higher taxes which they failed to put through at the last legislative gathering." At the first meeting of the CHA, held in San Francisco, the organizers had banned reporters and refused to issue any statements. County supervisors were especially incensed over the transparent tactics of the commission. Of the state's 58 county boards of supervisors, only one, Tulare, endorsed the CHA; the *Times* pointed out that State Highway Commissioner Charles A. Whitmore lived in Tulare County and edited a newspaper there.[18]

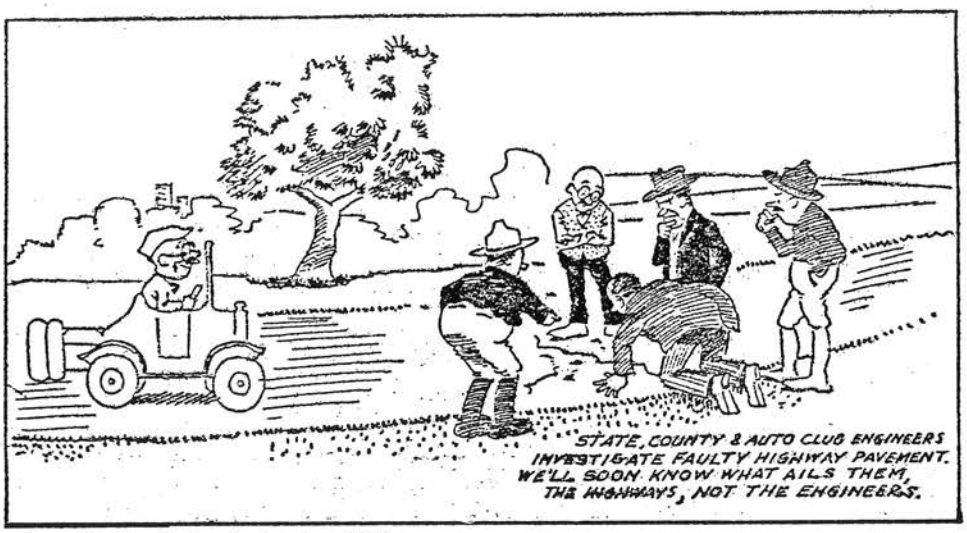
The Highway Commission's CHA ploy soon led to accusations of power politics that had been lacking in earlier arguments. Reviewing the criticisms in the auto club and Bureau of Public Roads reports, the *Los Angeles Examiner* editorialized on the possibility "that there is something wrong somewhere and that something ought to be done about it," suggesting the source of the trouble was either political abuse or business inefficiency. This drew a quick response from State Highway Commissioner George C. Mansfield who argued that the Federal report was in fact favorable to commission policies. He blamed the auto clubs, in political alliance with the trucking interests, for defeating the gasoline tax and other revenue bills needed for highway improvement. In fact, Mansfield asserted, the Highway Commission had come out in favor of heavy-duty highways; it was the auto club lobby that was therefore in the wrong, not the commission.[19]

Frustrated but not defeated by the Highway Commission's stubbornness, the auto clubs launched a major campaign to educate the public about the commission's policies. In an editorial on "The State Highway Crisis," *Touring Topics* accused the commission of obsessively building inferior state roads, insisting that the malleable Bureau of Public Roads report "fully corroborates the findings of the Automobile Club in all essential points." The ACSC polled its membership for approval of a resolution urging completion of the state road system to quality standards, regulation of traffic and limitation of loads, and continued, careful maintenance of state highways. The club's membership responded with 99.77% approval.[20]

In support of the auto clubs, the *Los Angeles Times* published a lengthy series of articles with numerous photographs illustrating the deteriorating condition of recently built state highways. It was pointed out that the final maturities of the three bond issues were 1961, 1962, and 1965, by which time the roads would long have crumbled into dust. A *Times* editorial cartoon on July 26 urged Californians, "Let's get out of the ruts!" A second cartoon, published on July 31, depicted Governor Stephens as "overseeing his political fences but overlooking the state's highways." The *Times'* articles were based mainly on information releases provided by the ACSC.[21]



from *Touring Topics,* March 1920



from *Touring Topics,* September 1920

The auto clubs' information campaign did not convince all public officials of Highway Commission shortcomings. Supervisors from Riverside, Orange, and San Bernardino Counties met in Riverside on July 25 to vote their support for the State Highway Commission; two supervisors opposed the resolution because they felt the endorsement was not strong enough. The commission won some points when it argued that thicker concrete slabs might make sense in the East where frost conditions could damage roads, but that such expensive specifications were not needed in California because of more favorable soil conditions beneath the concrete.[22]

Meanwhile, the ACSC found itself the target of criticism for not having acted quickly enough and for conducting too mild a campaign. The *San Diego Union* editorially chastised the auto club for initially taking a conservative view, failing to inform motorists of the problem, and not acting aggressively enough in its criticism of Highway Commission policies. W. L. Valentine, the ACSC president, explained that the ACSC's first concern had been to offer constructive suggestions to the commission, and to obtain the information that would make those suggestions meaningful. When the commission ignored the suggestions, the ACSC polled its membership. "It was then believed by the club's officers that public criticism by the club of the State's highway methods could no longer be withheld if the state were to be saved from a generation of disastrous highway failures," said Valentine. The club would continue its campaign "until the State builds roads that will carry the traffic without going to pieces." [23]

Having found the Highway Commission unresponsive, the auto clubs decided to focus on Governor Stephens himself. "The Club has investigated the situation, reviewed it impartially, and has made public enough of its findings to inform the public," stated a *Touring Topics* editorial in its August 1921 issue.[24] "The State Highway Commission is held responsible for the results of persisting in inadequate road construction after experience had shown the inadequacy of such policies. Responsibility for continuing to build highways that the mistakes of the past prove will break down rests upon the Governor of this State." This viewpoint was echoed in a *Los Angeles Times* editorial on August 11 that reviewed the dispute and speculated on how the governor might respond to the constructive criticism of the ACSC and CSAA. "Will he take advantage of the helpful and valuable information procured at great pains and considerable expense by the automobile clubs?" the *Times* asked. "Or will he relegate the best interests of the people to the background by supporting the Highway Commission, in spite of its persistence in using inadequate construction methods?"

The immediate answer came not from the commission or the auto clubs, but

from the Columbia Steel Company of Pittsburg, California, a small industrial municipality on San Francisco's East Bay. The steel company had expressed an interest in conducting scientific experiments on different concrete slabs. It offered to construct a model road and run tests to determine the best pavement for California's highways. The idea attracted immediate popular support, since it offered a practical and objective solution to the war of words between the auto clubs and the commission. As C. D. Marx of the San Francisco Engineering Council pointed out at the close of a debate between Highway Commission and CSAA representatives, "The two factions do not seem to be far apart after all, because the automobile associations appear to be willing to support the highway commission and to aid in raising funds for road work if suitable roads are assured and the highway commission seems to be more than willing to build adequate substantial roads if sufficient funds were made available."[25]

The steel company hired Lloyd Aldrich, an experienced highway engineer, to take charge of the road experiment, and he approached the ACSC board of directors with the steel company proposal, and on August 18 he gave a presentation, including a short motion picture, on the proposed experiment, which had received the endorsement of the Highway Commission and the Bureau of Public Roads. The company was in the process of building the test highway – a 1,400 – foot, oval shaped, concrete road, eighteen feet wide (twenty feet wide on the curves), with thirteen different types of concrete mix. When the road was completed, trucks would be driven continuously around the oval, carrying different weight loads. The road test included flooding and drying out each section of the concrete. Overall, the test promised to be carried out under rigorous scientific conditions to produce the most accurate data possible. Aldrich's presentation so impressed the directors that they voted an immediate donation of $5,000 for the testing program, to be followed later on by another $5,000.[26]

Other businesses and agencies also volunteered money, materials, and services for the experiment. Construction firms donated cement, sand, and gravel; manufacturers provided construction equipment; a Bay Area engineering firm offered to do the testing work free of charge; the Bureau of Public Roads provided eighteen trucks and drivers, and the California Highway Commission agreed to provide another eighteen trucks. The Motor Car Dealers Association also offered drivers, vehicles, and gasoline.[27]

By the beginning of November the experimental road was completed. On November 9 about 1,000 spectators, including highway commissioners, auto club representatives, and interested engineers surrounded the concrete oval to witness the beginning of the test. The trucks were loaded with pig iron to a gross weight of 14,500 pounds for each truck. Moving at an average speed of

ten miles per hour, eighteen trucks moved around the oval in a clockwise direction, the other eighteen vehicles proceeding counterclockwise. Each truck completed forty trips around the oval in an hour, and the trucks were driven for eight hours a day. Thus each pavement section received the impact of the trucks 11,520 times in an eight-hour period. Beneath the pavement, gauges recorded temperature readings and deflections in the concrete slabs.[28]

Within two weeks the test road began to show clear signs of punishment. Heavy rainstorms on November 22 and 23, by which time some 730,000 tons of traffic had passed over the concrete, contributed to the deterioration of the pavement sections. After 89 days the elliptical road had received 7.36 million tons of traffic, and cracks, edge curling, and deflections were being carefully recorded. Around and around the trucks went, putting wear and tear on the road that would have taken twelve years to accomplish under normal traffic conditions. The venerable *Engineering News-Record,* newsletter for the civil engineering profession, remarked that the tests were of much more than local significance. "Lessons from the Pittsburg tests will surely have a decided bearing on the future design of concrete roads," stated the magazine, "particularly with regard to reinforcement and subgrade problems." Whether the tests could solve the political side of the problem, however, was another matter.[29]

By the end of 1921 the Pittsburg experiment had yielded enough data to demonstrate to the ACSC's satisfaction that the Highway Commission's recommended road standard had failed the test. J. B. Lippincott, who had conducted the road survey investigation for the auto clubs in 1920, reported that of the thirteen types of pavement in the Pittsburg tests, the ones corresponding to the "Standard California 5 inch slab" were faring badly. By December 15 Section B, five inches thick and laid directly on adobe soil, was breaking down, displaying numerous breaks and irregular cracks. "This pavement in its present condition is a failure," asserted Lippincott. His conclusion, preliminary to the final test report, meant that the California standard slab was "not good enough even for traffic moving at 15 miles an hour with maximum loads of 22,000 pounds.....the California Highway Commission should discontinue the laying of this type of pavement."[30]

Additional reports from Pittsburg confirmed Lippincott's judgment, and the ACSC could point to scientific evidence of the inadequacy of the state's highway standards. The final report on the Pittsburg tests, however, was not published until the end of 1922. By that time the engineering aspects of the problem had yielded to the political, and the state's gubernatorial election in November had offered a new opportunity to resolve the dispute.[31]

from *Touring Topics,* June 1922

Governor Stephens had adamantly refused to consider further criticisms of his commission's road-building policy. He turned down a request by the CSAA to investigate accusations of waste and bad judgment, declaring that the Bureau of Public Roads report had settled all such questions. The California Farm Bureau Federation received a similar rebuff. After two years of trying to convince the governor and the commission of the need for better built roads, the problem seemed to have reached a stalemate. "Does the Governor really desire to know the truth concerning the State highways?" inquired a *Touring Topics* editorial. "Is he sincerely interested in the welfare of an enterprise that is vitally important to the people who placed him in office?" ACSC President W. L. Valentine noted in his annual report to the club, given early in 1922, that the Highway Commission had accepted many club recommendations, but "the modified policies and attitude of the California Highway Commission still leaves much to be desired."[32]

With the Pittsburg test report still in preparation in the summer of 1922, it came as a shock to Californians when the Highway Commission announced it was asking for $65 million to repair state roads already built, the money to come from increased license fees and a special gasoline tax. The sum, which almost equaled the amount provided for road construction by the three previous bond issues, in effect was a confession that state highways had been built at substandard quality from the beginning. In addition, a federal lawsuit charged Governor Stephens and the commission with wasting federal highway money to make up state road construction deficits. Stephens' stubborn denials no longer sufficed as a response to angry criticisms of his views. "The present administration and the present Highway Commission have spurned the people's rights," editorialized the *Los Angeles Times*. "The remedy lies in securing a State administration and a State Highway Commission that will honestly serve the people by building roads that will give the citizens dollar for dollar value."[33]

Stephens had intended to run for reelection in November, but he first had to win renomination for the office. He filed for both the Republican and Prohibition tickets. His chief opponent for the Republican nomination, Friend W. Richardson, charged Stephens with extravagance in state expenditures. The Republican primary, held six weeks after the announcement about the $65 million repair bill, went against Stephens who was denied his party's nomination. Although Stephens gained the Prohibition nomination for governor, this victory was pointless, since he was a registered Republican. A number of reasons could be given for Stephens' defeat, among them the opposition of wine and liquor interests to his Prohibitionist views; the conservative trend in state and national politics in the 1920s; the decline of

A Typical mountain road in Northern California about 1925
(From the editor's family photo albums)

A good mountain road in California about 1920-1925
(From the editor's family photo albums)

Progressivism in California; and, except for Hiram Johnson's two terms, an almost unbroken tradition of one-term governorships for California since statehood. The outcry over the $65 million bill for road repairs, however, coupled with the long campaign by the auto clubs for better roads, certainly affected the votes of cost-conscious Californians.[34]

As a lame-duck governor, Stephens got in his final word concerning the dispute in his last biennial message to the state legislature. He believed "that the proceeds of highway bonds hitherto authorized by the vote of the people of the entire state should be applied as widely as possible." He had therefore favored highway construction on a cost-per-mile basis, "thereby securing greater mileage at the same total outlay than could be secured by the initial construction of heavier and wider pavements." Stephens justified the need for "widening and thickening" state highways – the commission's term for rebuilding the roads – by noting that motor vehicle traffic had increased 1,700% in the past ten years. Stephens made no apologies for his position, and he left it to his successor to deal with how the "widening and thickening" problem might best be resolved.[35]

With the inauguration of Governor Richardson, major changes soon occurred in highway construction and motor vehicle policies. Richardson not only appointed a new Highway Commission; he established a Highway Advisory Committee to make a complete study of the state highway situation. The chairman of the committee, State Senator Arthur H. Breed of Piedmont, was also a CSAA director. Breed sponsored the California Motor Vehicle Act of 1923, updating state standards on the operation and ownership of motor vehicles; and a state tax on gasoline, the first of the "pay-as-you-go" taxes for construction and maintenance of county and state roads, became a reality.[36]

New highways for California did not appear overnight. The Highway Advisory Committee, also known as the Committee of Nine, spent over a year compiling its report on construction of roads and bridges, rights of way, sources of funds and financing, and state highway classification, among other topics. Committee members traveled by automobile all over the state highway system, and they held public meetings throughout the state. The recommendations of the committee influenced state highway policies for the next two decades.

But controversy and disagreement did not end with the inauguration of Richardson and replacement of Highway Commission members. For the next four years auto club spokesmen, the state legislature, and the Highway Commission debated such questions as increase of the gasoline tax, new pavement standards, and apportionment of mileage between the northern and southern parts of the state. Not until 1927 was agreement, through com-

promise, successfully achieved. The Breed Highway Measures, laws that created a three-cent per gallon gasoline tax and an acceptable program of mileage allocation for road construction throughout the state, ended past disputes – though future problems were acknowledged and anticipated.[37]

In the infancy of the automobile age the design, financing, construction, and maintenance of a state highway system required powers of prescience far beyond the planning and predictions of conventional wisdom. Initial road construction, funded by bond issues, was soon eclipsed by developments in automotive technology, commerce, and population growth. Yet the signs were there, in the use of highways by commercial trucks, the exponential increase in automobile registrations, and the quickly ripening California love affair with the automobile. The times required flexibility of thought, ambition, and not a little imagination in determining where the funds would come from for building the roads, and what kind of roads would have to be built. The Automobile Club of Southern California and the California State Automobile Association stood at the forefront of highway planning; and the perseverance of the auto clubs helped make possible the foundations of our modern highway system.

NOTES

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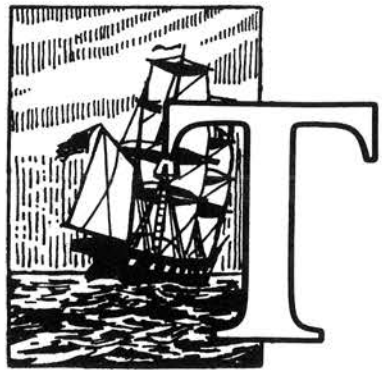
A Chronological Perspective of the Far West

by KONRAD F. SCHREIER, JR.



THE STUDY of the history of the United States is seldom made from the point-of-view of the Far West – principally the states of California, Oregon and Washington. This compilation is. It is not intended to be complete, but to give a new perspective to the subject. Its prime stress is on travel, transportation, commerce, communications and the like, and how they relate to some events outside the Far West.

It is necessary to begin somewhere, so why not here?

Columbus sailed the ocean blue
In fourteen hundred and ninety two...
(traditional)

1497 – John Cabot for England and Amerigo Vespucci for Spain are the first to reach the North American mainland.
1513 – Juan Ponce de Leon discovers Florida for Spain.
1519-1521 – Hernando Cortez conquers Mexico for Spain.
1519-1522 – Ferdinand Magellan's Spanish ships are the first to circumnavigate the world.
1521 – Vasco Nunez Balboa crosses Isthmus of Panama and discovers Pacific Ocean for Spain.
1533 – Fortun Jimenez lands on Baja California for Spain.
1535 – Hernando Cortez lands at La Paz, Baja California for Spain.

1540 – Francisco Coronado and Hernando de Soto explore the central United States for Spain.

Spanish ships exploring the Gulf of California discover the mouth of the Colorado River.

1542 – Juan Rodríguez Cabrillo explores the Pacific Coast, first landing at San Diego and then proceeding north to about Point Arena, Mendocino County, California, for Spain.

1543 – Bartolome Ferrer sails up the Pacific Coast as far as Oregon for Spain.

1565 – Spanish found St. Augustine, Florida, the first European settlement in the United States.

1566 – Spanish Manila galleons sail from Mexico to the Philippines and return via California coast near Cape Mendocino. Some land at Monterey Bay on run south.

1577-1580 – Sir Francis Drake sails up California Coast to vicinity of Oregon on his circumnavigation of the world for England.

1588 – The Spanish Armada meets with disaster off the British Isles.

1589 – British ship *Desire,* Capt. Thomas Cavendish, takes a Spanish Manila galleon off Baja California.

1595 – Spanish Manila galleon wrecked near Drake's Bay, California. Crew builds first Far-West-built European sailing craft and sails it home to Mexico.

1602-1603 – Sebastian Vizcaino explores Pacific Coast for Spain. Sails as far north as Oregon and gives many place names including San Diego, San Pedro, Santa Catalina Island and Santa Barbara.

Vizcaino is the last Spaniard to sail the Pacific Coast until 1769. 166 years later!!

1607 – British under John Smith found Jamestown Colony, Virginia.

1610 – Spanish colonists found Santa Fe, New Mexico, on site of ancient Indian pueblo; first European settlement in the American West.

1614 – Dutch found New York City as New Amsterdam colony.

1618-1648 – Europe's Thirty Years' War.

1620 – Pilgrims land at Plymouth Rock, Massachusetts.

1621 – British found Boston, Massachusetts.

1638 – Swedish found Wilmington, Delaware.

1665 – Great Plague devastates Europe and British Isles.

1666 – The Great Fire devastates London.

1681 – British found Philadelphia, Pennsylvania.

1683 – Spanish under Isidro Antonado y Antillon explore Baja California.

1684-1711 – Spanish Father Eusebio Kino explores southwest and founds Mission Nuestra Senora de Los Angeles about 100 miles south of Tuscon, Arizona in 1687.
1697 – Spanish Father Salvatierra founds Mission Loreto, Baja California.
1699 – French found Mobile, Alabama.
1701 – Spanish Father Kino explores the Colorado River. French found Detroit, Michigan.
1718 – French found New Orleans, Louisiana.
1733 – British found Savannah, Georgia.
1740-1741 – Russians under Danish explorer, Vitus Bering, come to Alaska seeking sea otter pelts.
1753 – British found Fort Pitt at Pittsburgh, Pennsylvania.
1756-1763 – America's French and Indian War is a part of Europe's Seven Years' War.
1764 – French found Saint Louis, Missouri.
1767 – Spain's King Carlos III replaces Jesuit missionaries in Mexico with Franciscans.
1769 – Spanish Jose Gaspar de Portola and Father Junipero Serra explore the overland route from Mexico to California as far as San Francisco Bay and found mission and presidio of San Deigo.
1770 – Spanish found Mission San Carlos Borromeo de Carmelo and presidio at Monterey in California.
1771 – Spanish found Mission San Gabriel Arcangel and Mission San Antonio de Padua in California.
1772 – Dominican Fathers replace Franciscans in California Missions.
Capt. Pedro Fages and Father Crespi explore the San Joaquin and Sacramento river valleys.
1774 – Spanish Capt. Juan Perez explores Pacific Coast as far as the state of Washington.
Capt. Juan Bautista de Anza marches from Tubac to the San Gabriel Valley.
1775 – American Revolution against British begins.
Spanish Capt. Bruno Heceta discovers the mouth of the Columbia River.
Indians revolt at San Diego and kill Father Luis Jayma and others.
First non-native child in California born to a member of de Anza's second expeditions bound for San Francisco.
Juan de Ayala sails the *San Carlos,* the first ship through the Golden Gate, into San Francisco Bay.

1776 – United States declares independence from England.
Spanish found Mission San Francisco de Asis, Mission San Juan Capistrano and presidio of San Francisco.
1777 – Spanish found Mission Santa Clara and Pueblo of San Jose.
1778 – British Capt. James Cook discovers the Hawaiian Islands and touches Oregon coast.
1780 – Spanish found Mission San Pedro y San Pablo, Baja California.
1781 – Indian troubles – the Yuma Massacre – closes the overland trail from Mexico to California – it is not reopened until 1821.
Spanish found pueblo of Los Angeles.
1782 – British concede the independence of the United States.
Spanish found Mission San Buenaventura (Ventura) and Presidio of Santa Barbara.
1784 – Spanish Gov. Pedro Fages grants land to three Spanish Army veterans, the first privately owned land in California.
1786 – Spanish found Mission Santa Barbara.
A French ship visits Monterey, California.
1787 – Spanish found Mission la Purisima Concepcion (near Buellton).
Spanish publish first map of California showing the missions and El Camino Real.
1789 – The French Revolution.
1790 – Spain acknowledges England's right to fish, trade and settle in the Pacific Northwest.
1791 – Spanish found Mission Santa Cruz and Mission Neustra Senora de la Soledad.
1792 – American Capt. Robert Gray on first trading voyage from east coast names the Columbia River for his ship.
Englishman George Vancouver trading in the Pacific Northwest meets Capt. Gray and American ship *Columbia.*
Russian Orthodox Church missionaries from Alaska visit northern California and Pacific Northwest.
1792-1793 – A British ship explores the Pacific Coast from San Francisco Bay to Puget Sound.
1793 – George Washington founds Washington D.C.
British Alexander Mackenzie crosses Canada overland to begin operations of North-West Company in Washington.
1796 – American ship *Otter* of Boston first to visit Monterey, California.
1797 – Spanish found Mission San Jose, Mission San Juan Bautista, Mission San Miguel Arcangel and Mission San Fernando Rey de Espana.
1798 – Spanish found Mission San Luis Rey de Francia.

1799 – American trading ship *Eliza* first into San Francisco Bay while *Betsy* out of Boston first into San Diego.

1803 – United States buys Louisiana Territory from French who were at war with the British.

Spanish found Mission Santa Ines.

1804-1806 – First overland trip from United States when U.S. Army expedition under Captains Meriwether Lewis and William Clark go up Missouri River and then down the Columbia River to the Pacific.

1804 – United States founds Fort Dearborn and Chicago, Illinois.

1805 – American ship *Lelia* under Capt. Shaler calls at San Pedro on way to Hawaiian Islands.

Russians exploring Pacific Coast out of Alaska.

1806 – Russian ship from Sitka, Alaska, enters San Francisco Bay to trade for food.

U. S. Army Capt. Zebulon Pike explores plains east of Rocky Mountains.

Spanish under Moraga explore Central Valley of California.

1807 – Aaron Burr arrested for treason in plot to make himself an empire of the Louisiana Purchase territory.

American Manuel Lisa's first fur trading expedition ascends Missouri River to near Cody, Wyoming.

1808 – Fulton's first successful steamboat navigates on Hudson River in New York.

1811 – News of Mexican Revolution of 1810 against Spain reaches California.

John Jacob Astor of New York founds fur trading post near Astoria, Oregon.

Russians establish trading post at Bodega Bay, California.

1812 – French under Napoleon take and lose Moscow, Russia.

Russians establish a colony at Fort Ross, California.

1813 – John Jacob Astor's first overland fur trading party arrives at Astoria via Missouri and Columbia Rivers.

United States and England in War of 1812. It has no effect on the Far West.

Astor's men sell Astoria to British who re-name it Fort George.

Spanish secularization of all colonial missions has no immediate effect on California Missions.

1815 – French under Napoleon defeated at Waterloo.

1817 – Spanish found last California Mission San Rafael Arcangel.

British acknowledge United States' rights in the Pacific Northwest under the Treaty of Ghent.

1818 – Monterey, California, occupied by pirate Hippolyte de Bouchard.
Joseph Chapman deserts and becomes first person from United States to live in California.

1819 – First U.S. Army post west of Mississippi River established as Fort Atkinson, Council Bluffs, Nebraska.

1820 – New Spanish constitution duly sworn in California.
Capt. Stephen H. Long leads U.S. Army expedition up Platte River through "Great American Desert" to Rocky Mountains.

1821 – Overland trail from Mexico to California reopened.
Under the Treaty of 1819 England cedes all Pacific Northwest rights to the United States.
An order secularizing the California missions published.
The Hudson's Bay Co. absorbs the North-West Trading Co. and begins trading in the Pacific Northwest.
Californians have extensive trading connections selling hides, tallow, butter and horses to Hawaii, hides and tallow to New England, and grain to Russian Alaska.
First American traders travel to Santa Fe, New Mexico, over the Santa Fe Trail.
Mexico becomes independent from Spain and California declares its allegiance to Mexico.

1822 – The first of the annual fur trade rendezvous held.
The first freight wagons traverse the Santa Fe Trail.

1823 – Mexicans found Mission San Francisco Solano at Sonoma.
This was the last, furthest north and only one of the 23 California missions founded by Mexicans.

1824 – Russians agree not to colonize in Pacific Northwest.
New Mexican Constitution separates Alta and Baja California as they practically had been since 1804. Alta California was never represented in the Mexican Congress.
American fur trappers discover the Great South Pass, the easiest way over the Continental Divide.
Several California missions suffer Indian uprisings.

1824-1825 – Dr. John McLoughlin establishes Hudson's Bay Co. post Fort Vancouver, Washington, on the Columbia River.

1824 – From now over the next ten years the California mission system collapses and private citizens take over their lands.

1825 – California capital moved from Monterey to San Diego.

1826 – American fur trappers arrive overland at Mission San Gabriel from Missouri.

1826 – John Reed's sloop becomes first regular ferry across the bay from Mission Dolores (San Francisco) to Sausalito.

1827 – A home-made cannon carriage is the first wheeled vehicle to cross Great South Pass.

James and Sylvester Pattie arrive at San Diego from Santa Fe via the Southern Overland Trail.

1829 – Dr. John McLoughlin founds a Hudson's Bay Co. trading post at Oregon City, Oregon.

U.S. Army first provides escorts for wagon trains on the Santa Fe Trail.

There are Mexican uprisings at San Francisco and Monterey presidios.

1830 – First wagon trains traverse Oregon Trail as far as South Pass.

First successful steam railroad in America begins operation in Maryland.

Ewing Young and Kit Carson arrive at Los Angeles via Southern Overland Trail from Santa Fe.

1832 – Four Oregon Indian chiefs travel Oregon Trail to Saint Louis to "Procure white man's Bible..."

First wagon train traverses Oregon Trail through Great South Pass to Green River, Wyoming.

1833 – Hudson's Bay Co. builds Fort Nisqually trading post near Tacoma, Washington.

Walker party reaches Monterey and are first over the Sierra Nevada to Central Valley.

1834 – Methodist missionaries Jason Lee and his nephew Daniel Lee travel Oregon Trial to Willamette Valley, Oregon.

Nathaniel Hall founds Fort Hall trading post in Idaho on Oregon Trail and sells it to Hudson's Bay Co. in 1836.

Agustin Zamorano brings first printing press to California and is state's first printer.

1835 – Mexicans land in Yerba Buena Cove and found San Francisco.

Missionaries Rev. Samuel Parker and Dr. Marcus Whitman arrive in Oregon over the Oregon Trail.

Mexicans found presidio and pueblo of Sonoma, California.

Texas declares its independence from Mexico.

1836 – Missionaries and their wives traverse Oregon Trail to Pacific Northwest with a buggy – first women and wheeled vehicles over trail.

1836 – The *Beaver* is first steamboat on Pacific Coast. She was built by Hudson's Bay Co. at Fort Vancouver for use on Columbia River.

William Wolfskill plants first commercial orange grove in Los Angeles and California using mission stock.

The first overland trail pioneers arrive in California, the Workman-Rowland party at Mission San Gabriel via the southern trail from Santa Fe and the Bidwell party at the San Joaquin River via the California branch of the Oregon Trail.

John A. Sutter establishes his fort at Sacramento, establishes his New Helvetia and purchases Fort Ross.

The Russians leave Fort Ross, California.

The Oregon Territorial Government organized by the United States.

1841-1842 – U.S. Navy Capt. Charles Wilkes explores Pacific Northwest coast.

1842 – Gold discovered near Mission San Gabriel and Don Abel Stearns of Los Angeles ships 20 ounces of it to U.S. Mint at Philadelphia, Pennsylvania.

In the mistaken belief that the United States and Mexico are at war U.S. Navy Commodore Thomas Ap Catsby Jones seizes Monterey, California, then quickly retires.

U.S. Army Lt. John C. Fremont traverses Oregon Trail and his official report makes it popular.

The flood of immigrants from the United States to the Far West begins.

1843 – United States send first consul, Thomas Larkin, to Monterey, California. France and England have consuls there.

Jim Bridger establishes Fort Bridger trading post in Wyoming on the Overland Trail.

1844 – First message sent by electric telegraph.

Joseph T. Heath establishes Hudson's Bay Co. trading post at Steilacoom, Washington.

1845 – Americans found Portland, Oregon and Tumwater, Washington, the first settlement on Puget Sound.

Mexicans begin mining mercury at New Almaden, California.

U.S. Army Lt. Col. John C. Fremont returns to California to stay for several years.

Texas becomes one of the United States.

1846 – In May the United States and Mexico go to war.

1846 – U.S. Army Lt. Col. John C. Fremont leads the Bear Flag Revolt in Sonoma, California in mid-June and raises U.S. flag July 7, 1846.

U.S. Navy under Commodore John D. Sloat lands at Monterey July 7, San Francisco July 9, San Diego July 29, and San Pedro August 13.

In December the U.S. Army under Brig. Gen. Stephen W. Kearny arrives overland and meets U.S. Navy at San Diego.

The *Californian,* California's first newspaper, and The Oregon *Spectator,* the Pacific Northwest's first newspaper, begin publication.

The Hudson's Bay Co. retires" from trading in the United States.

The United States-Canadian boundary agreed upon.

1846-1847 – The Donner Party spend winter trapped in Sierra Nevada snow.

1847 – Pacific Mail Steamship Co. wins the U.S. Mail contract, and mail no longer carried on any available ship. The route is via Panama to California.

Ex-Russian steamboat *Sitka* first on California river running between San Francisco and Sacramento.

The Mexican War ends and the Mormon Battalion completes its overland march to Southern California.

Charles Cady begins carrying mail from San Francisco to Sacramento twice a week at 25¢ per letter.

The Mormons found Salt Lake City, Utah.

1848 – On January 24, James W. Marshall discovers gold at Sutter's Coloma saw mill and this starts the California Gold Rush of 1849.

Treaty of Guadalupe Hidalgo ending Mexican War cedes California to the United States.

First Chinese immigrants on Pacific Coast reach San Francisco.

Naglee & Stinton's "exchange and deposit office" of San Francisco is first bank in Far West.

1849 – This is the year of the famous California Gold Rush.

The steamship *California* rounds Cape Horn and begins service between Panama and San Francisco and Portland, Oregon.

Whitney & Ely's Atlantic Express first between San Francisco and New York City. It fails, and the run is taken over by Adams Express of New York City.

Roach & Woodworth first to transmit gold drafts from San Francisco to New York City.

1849 – First stagecoach lines in Far West open, including John Whistman from San Francisco to San Jose and Frank Stevens and John Burch from Sacramento to Mormon Bar.

Oregon Territorial Government is extended to include Washington.

U.S. Army screw steamer *Massachusetts,* first of type in Far West, delivers troops from Boston to Astoria.

Stern wheel river steamboat *Lady Washington,* first of type in Far West, brought from east disassembled.

The United States-Mexican boundary surveyed.

At the end of the year, San Francisco burned for the first time.

1850 – California admitted to the United States as a state.

Ferry steamboat *Kangaroo* first to operate across San Francisco Bay.

First boiler explosion in river steamboat in Far West on the *Saratoga* kills twenty.

Since 1848, some 500 to 700 ships have been abandoned in San Francisco Bay.

Stagecoach and wagon freight lines running in Far West, and Mexican mule pack trains go where wagons can't. The Mexican carreta is almost extinct.

Mail route from east to Salt Lake City opened.

San Francisco has two serious fires.

Gold is discovered on Rogue River, Oregon.

1851 – Gregory's Atlantic & Pacific Express opens first San Francisco to Los Angeles stage line.

Clipper ship *Flying Cloud* makes record 89 day run from New York around Cape Horn to San Francisco.

Steamship *Columbia* put in service between San Francisco and Portland, Oregon.

Steamships making regular runs from California to mouth of Colorado River. From there poled flatboats go up river to Yuma, Arizona, and beyond.

F.A. Chenoweth builds wooden tramway portage around the Cascades of the Columbia River.

San Francisco has another fire whose origin leads to the founding of The Committees of Vigilance.

Wild and hostile Indians are becoming a real problem on the overland trails.

Olympia, Washington, is founded.

1851 – The Los Angeles *Star* is city's first lasting newspaper.

1852 – A steamboat begins running on Colorado River between its mouth and Yuma, Arizona.

Wells-Fargo announces its first California service in *New York Times.*

First Far West electric telegraph line opens from Point Lobos to San Francisco – 8 miles – to report ship arrivals.

Seattle, Washington, is founded.

Sacramento, California, has a serious fire.

1853 – U.S. Navy squadron commanded by Commodore Matthew C. Perry visits Japan.

First iron hull steamboat built in Far West is *Belle of Oregon City* built at Oregon City, Oregon.

U.S. Congress authorizes surveys for the transcontinental railroad routes.

Washington and Oregon become separate territories.

The Gadsden Purchase adjusts the western portion of United States-Mexican boundary.

1854 – After many moves, the California state capitol is permanently established at Sacramento.

1855 – The Sacramento Valley Railroad running one and one half miles east from Sacramento is first in Far West. It is completed a few more miles to Folsom in 1856.

Wells-Fargo has agencies throughout the Far West and in Honolulu, Hawaii.

The 49-mile Panama Railroad begun across the Isthmus in 1850 is completed, connecting the Atlantic and Pacific oceans.

California Stage Lines begins running from San Francisco to San Diego via Los Angeles and San Pedro.

In Europe, the Crimean War ends.

1856 – First railroad bridge across Mississippi opened between Rock Island, Illinois, and Davenport, Iowa.

U.S. Army operates first freight wagon trains over the Oregon Trail.

1857 – James Burch opens first overland stage line between San Antonio, Texas, and San Diego, California. He died a short time later and line became Butterfield Overland Stage Line.

1858 – Steamers begin service to Wilmington to serve Los Angeles.

Hockaday & Co. gets mail contract to open regular stage service between Genoa, Nevada, and Salt Lake City.

1858 – Pioneer Stage Lines operating service between Placerville, California and Genoa, Nevada soon takes over service to Salt Lake City and it becomes possible to traverse the Central Overland Trail by stage.

Butterfield Overland Stages begin regular operation from Saint Louis, Missouri, to San Francisco over the Southern "Oxbow" Trail.

U.S. Army ordered to march west on Overland Trail to impose U.S. governmental institutions on Utah's Mormons.

U.S. Army's "camel corps" arrives in California.

The U.S. Branch Mint at San Francisco opens.

1859 – The United States and England almost go to war over Puget Sound's San Juan Islands. In 1872, the dispute is decided in favor of the United States.

The Nevada Comstock Lode-Virginia City gold rush begins.

Oregon is admitted to the Union as a state.

1860 – California Stage Lines opens first mail run between Sacramento, California and Portland, Oregon – 710 miles.

April 3, the first Pony Express run from Westport (Kansas City), Missouri, to Sacramento, California, is completed, opening the line.

A steam street railroad opens on Market Street, San Francisco.

1861 – The Civil War begins in April.

The Butterfield Overland Stage over the southern route is closed by the war, but the stage lines over the Central Overland Route remain open.

The first transcontinental telegraph message is sent October 24 from California to Washington, D.C. This terminates The Pony Express.

The Far West remains loyal to the Union.

1862 – The locomotive *Oregon Pony,* the first built in the Far West and operated in the Pacific Northwest, opens run on portage railroad at Columbia River's Cascades.

1863 – It is said that this year of the Civil War was paid for with California gold and Nevada silver.

1864 – California's second railroad opens between San Francisco and San Jose.

1865 – The Civil War ends in April.

The "race" to construct the Transcontinental Railroad begins at both ends.

1865 – *The Guide,* America's first shipping journal, begins publication in San Francisco.

The *San Francisco Examiner* newspaper begins publication.

1867 – The United States buys Alaska from Russia.

The United States pays $650,000.00 for Hudson Bay Co.'s claims in Pacific Northwest.

1868 – The Central Pacific opens service between Sacramento, California and Reno, Nevada.

First railroad in Southern California: Phineas Banning's Los Angeles & San Pedro opens.

Beet sugar production begun at Alameda, California.

San Francisco has a serious earthquake.

1869 – May 10 the Transcontinental Railroad officially completed at Promontory, Utah, and begins service.

1873 – The Northern Pacific Railroad opens service between Klamath, Washington (on the Columbia River) and Tacoma, Washington (on Puget Sound).

The Southern Pacific Railroad building south from San Francisco opens to Soledad where it stops until 1886.

The United States-Canadian water boundary in the Pacific Northwest is settled.

The world's first cable streetcar line, Andrew Hallidie's Clay Street Railway, opens.

Southern California's unique navel orange is introduced.

1874 – First Los Angeles horsecar street railway opens, running two and one half miles from the Plaza south on Main Street.

The first electric trolley streetcar operated in San Francisco by inventor Stephen D. Field.

1875 – Ralston's San Francisco Bank of California collapses, taking his industrial empire with it.

Luther Burbank begins his famous plant breeding nursery at Santa Rosa, California.

1876 – The telephone is invented and then introduced at the Centennial Exposition at Philadelphia.

Lt. Col. George Armstrong Custer and half of his 7th U.S. Cavalry wiped out by Indians at Little Big Horn.

First western oil refinery set up near Newhall, California.

Southern Pacific Railroad completes line from San Francisco to Los Angeles via Central Valley route.

1877 – First long distance telephone line operated from French Corral to Bowman Lake, California – 59 miles.
1879 – Thomas A. Edison invents the incandescent electric light.
1880 – First electric lighted steamboat, Oregon Railway & Navigation Co.'s *Columbia*, begins operation between San Francisco and Portland.
1881 – First attempt to construct Panama Canal fails.
Most cities in Far West have telephone exchanges.
1882 – Santa Fe Railroad line from Los Angeles to San Diego opens. Floods close it in 1883.
1883 – Northern Pacific Railroad opens service from St. Paul, Minnesota, to Portland, Oregon, and Tacoma, Washington.
1884 – Southern Pacific Railroad opens service from Sacramento to Portland.
The first bicycle ride made from San Francisco to New York City.
1885 – Union Pacific Railroad opens line into Portland, Oregon.
Santa Fe Railroad opens Chicago-Los Angeles service and its new Los Angeles-San Diego line.
Southern Pacific Railroad opens service between Los Angeles and El Paso, Texas.
A cable car street railway is built in Los Angeles.
1886 – First trainload of oranges shipped east from Los Angeles.
1887 – One of the first electric streetcar lines opens in Los Angeles, California.
The Southern Pacific opens line between San Francisco and Portland, Oregon and the Coast Line from San Francisco to Los Angeles.
1889 – Washington becomes a state of the Union.
1892 – Edward L. Doheny discovers oil in Los Angeles.
1893 – The Columbian Exposition in Chicago celebrates the four hundredth anniversary of Columbus' 1492 voyage.
The Great Northern Railroad opens service between Seattle, Washington and St. Paul, Minnesota.
Charles E. and J. Frank Duryea begin building America's first production automobile.
1898-1899 – Spanish-American War. Troops and ships for Philippines depart from Pacific Coast.
Improvement of the Los Angeles-San Pedro harbor begun.
1900 – Santa Fe Railroad opens line from Barstow, California, to Richmond on San Francisco Bay.

1901 – Henry E. Huntington and associates incorporate the Pacific Electric Railroad which becomes the largest system in the world.

1902 – Pioneer wireless telegraph radio link between San Pedro, California to Catalina Island – some 20 miles.

1903 – The Trans-Pacific submarine telegraph cable completed.

George A. Wyman rides a Yale "California" model motorcycle from San Francisco to New York City in 60 days.

The Packard automobile "Old Pacific" driven from San Francisco to New York City in 61 days.

The Wright brothers make first successful flight in a fully controllable airplane.

1904 – The United States begins construction of Panama Canal.

Southern Pacific Railroad completes far west construction with Burbank-Oxnard link on Coast Line.

Pliny E. Holt builds first Caterpillar tractor at Stockton, California.

1906 – The San Francisco earthquake and fire – the worst natural disaster in Pacific Coast history.

The last Far West gold rush begins to the desert regions of Eastern California and Nevada. Many automobiles used.

1909 – The Chicago, Milwaukee, St. Paul and Pacific Railroad, the last transcontinental built, opens between Chicago and Seattle.

1910 – First Far West aviation meet held in Los Angeles.

The Mexican Revolution begins and it will keep that country stirred up until about 1930.

1911 – The Western Pacific Railroad, the last built in the Far West, opens between Oakland, California, and Salt Lake City.

A Saurer motor truck takes months to make first transcontinental run from New York City to Los Angeles and on to San Francisco.

1911-1912 – Calbraith P. Rogers makes first transcontinental airplane flight from Sheepshead Bay, New York, to Pasadena, California, in many hops, several crashes, and 49 days.

1914 – Panama Canal opened between Atlantic and Pacific Oceans.

The first air conditioned railroad car is used on Santa Fe's California Limited between Chicago and Los Angeles.

World War I begins in August.

1915 – First transcontinental telephone call completed between San Francisco and New York City.

1916 – Mexican Pancho Villa raids Columbus, New Mexico, and upsets entire Mexican-American boundary.

First round-trip transcontinental truck trip made from Seattle to New York City to Los Angeles to Seattle in three months.

1917 – The United States enters World War I in April.

Southern California becomes major military aviation center and aviation industry begins.

Southern California becomes moving picture production center.

1918 – World War I ends in November.

1919 – The first transcontinental airplane race from the Presidio of San Francisco to Roosevelt Field, Mineola, New York, takes winner 93 hours. 15 planes start, 4 finish.

The San Diego & Eastern Railroad connects San Diego and Yuma, Arizona.

1920 – First transcontinental air mail service begun between San Francisco and New York City using planes by day and trains by night.

1921 – The first transcontinental air mail flight made between San Francisco and New York City.

1923 – The first non-stop transcontinental flight from Roosevelt Field, Long Island, New York, to San Diego – 2,700 miles.

1924 – Year round transcontinental air mail flights replace winter plane-train service.

First transcontinental airship (zeppelin) flight from Lakehurst, New Jersey, to San Diego.

1925 – First around-the-world flight from Clover Field at Santa Monica near Douglas Aircraft factory where planes were built, to Seattle, Washington.

1927 – Art Goebel makes first flight from Oakland to Honolulu.

1929 – First modern highway between San Francisco and Los Angeles is completed, and overnight bus service runs on it.

First transcontinental airplane-train passenger service begins. It usually takes two days.

On first airship trip around the world the *Graf Zeppelin* visits Southern California.

1930 – Southern Pacific's Martinez-Benicia bridge replaces last mainline railroad train ferry in Far West.

1933-1934 – Century of Progress, Chicago's second world's fair.

1934 – Diesel powered high speed train "City of Los Angeles" begins service between Chicago and Los Angeles in 39 hours.

First coast-to-coast airline service begins between Los Angeles and Newark, New Jersey.

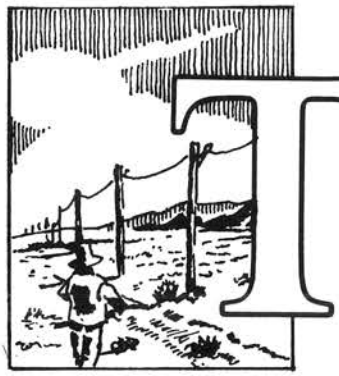
1935 – The China Clipper flying boats begin first airline service across Pacific Ocean from San Francisco to the Philippines, Japan and China.
1936 – The San Francisco-Oakland Bay Bridge opens.
1937 – The San Francisco Golden Gate Bridge opens.
1939 – World War II begins in September.
1941 – The United States enters World War II on December 7, 1941.

There has been as much change in the Far West since World War II as there was up to that time, where this chronology ends.

BIBLIOGRAPHY AND CREDIT NOTE: Hundreds of references were used when compiling this chronology, since every entry was confirmed in two or more reliable sources. They ranged from the 1910 *Encyclopaedia Britannica* through Joseph N. Cane's 1934 *Famous First Facts* to the Automobile Club of Southern California's and other Far West tourist guides.

The same scope applies to people who helped – there are so many I cannot list them either. I will, however, thank the staffs of the History Division and the Library of the Los Angeles County Museum of Natural History for their very important contribution to this effort.

One Last Thing



THE FAR WEST has many firsts, records and claims to fame, but there is one thing which combines them all – the first long distance telephone!!!

It began when Alexander Graham Bell patented his first primitive telephone in March 1876, after inventing it just a couple of months before. The telephone received its first important public introduction when it was demonstrated at the United States Centennial Exposition in the summer of 1876. It was the hit of this great world's fair held in Philadelphia, Pennsylvania.

Many people from the Far West attended the Centennial Exposition, and they brought the telephone home with them:

"Two lone brick buildings mark the permanent remains of French Corral. The Milton Mining and Water Company Building, which also served as the Wells Fargo Express Office is remarkably well preserved. Here in 1877, according to a brass plate affixed to its front, the Ridge Telephone Company (one of the world's first) operated the first long distance telephone line in the world. The line connected French Corral via Sweetland, North San Juan, North Columbia Hill, North Bloomfield and Graniteville with Milton and Bowman Lake, 58 miles away," (the second building had been a store) according to Olaf P. Jenkins, *The Mother Lode Country,* Bulletin 141, California Division of Mines, 1948.

The primary reason the men of the northern California mines built the line was to help regulate the flow of water they used in placer gold mining operations. They acomplished this less than two years after the invention of

the telephone, and several years before even its inventor considered it perfected!!

Unfortunately, this remarkable first long distance telephone connection has been practically forgotten or overlooked by historians. It is not even mentioned in Herbert N. Casson's company-supported *The History of the Telephone,* Chicago, 1910, or in Charles Greeley Abbot's *Great Inventions,* Smithsonian Scientific Series Volume Twelve, Washington, 1932, which includes a chapter with one of the best accounts of the invention of the telephone ever published.

This is a good example of the treatment the Far West often receives in American history, and is the instance which encouraged the Editor to devote this *Brand Book 17* to the history of the Far West.

Contributors

RICHARD W. CUNNINGHAM was born west of the Mississippi River – in Missouri – but he has been a Los Angeles resident practically all his life. He served with the United States Marine Corps in the Pacific in World War II, and he is now a commercial artist and designer-builder of exhibits for museums, trade shows, worlds fairs and anybody who needs a first class job of this sort.

Dick's interest and knowledge of nautical and maritime history is famous, and so are his writing and illustrations on the subject. He is associated with several maritime museums and nautical historical societies, and he is a Past President of the Southern California Chapter of the Nautical Research Guild. Dick has made a number of important contributions to the nautical history of the Far West which include a collection of models of California Indian primitive water craft he has given to the Santa Barbara Natural History Museum.

THE HAGERS, Everett G. and Anna Marie, came to the Far West from "back east". Everett is a retired engineer, Anna Marie a retired librarian, and they live in the Point Firmin area of San Pedro. They, as a team, have made an important contribution to the study of Western history by compiling indices for publications of the California Historical Society, the Historical Society of Southern California, the *Branding Iron* of the Los Angeles Corral of The Westerners, the eleven volumes of *The Larkin Papers* edited by Dr. George P. Hammond, and many other books and publications.

Anna Marie contributed two volumes to *Baja California Travel Series* published by Dawson's Book Shop. In addition to Anna Marie's article on Los Angeles's Merced Theater for the Book Club of California, the Hagers have jointly written for *Brand Book 10* of this series and for the *Branding Iron.*

The Hagers' knowledge of publications in California history is nearly legendary, as is their personal library on the history of Los Angeles, Long Beach and Catalina Island.

ABRAHAM HOFFMAN is a native Californian born in Los Angeles. His Ph.D. in History from U.C.L.A. is supported by his B.A. and M.A. from California State University at Los Angeles. He is a teacher in the truest sense – the kind who makes a subject interesting to anybody with the sense to listen. His publications include the books *Unwanted Mexican Americans in the Great Depression: Repatriation Pressures, 1929-1939* (1974) and *Vision or Villany: Origins of the Owens Valley-Los Angeles Water Controversy* (1981), and numerous contributions to journals devoted to western history.

Abe's research interests include minorities in the West, water resources development in the West, and California state and local history. In 1984 he took over the Corral's job of Roundup Foreman for the Westerners' *Branding Iron,* assuring that this publication will continue its important place in Western history publications.

RICHARD F. LOGAN is a New Englander by birth and education, and a Westerner by choice. A Professor of Geography at U.C.L.A. from 1948 until retirement in 1984, he brought a Harvard Ph.D. and Clark University B.A. and M.A. with him. He has run university extension programs all over California.

Dick knows his subject at first hand. He has not only explored the mountains and deserts of the West, he has conducted tours from the Santa Monica Mountains to Death Valley and other places. His extensive professional field research projects in the deserts and mountains of the American Southwest as well as southern Africa, the Sudan, Israel and around the Mediterranean have given him a profound grasp and feel for geography and topography.

DAVID F. MYRICK is a native Californian from Santa Barbara. After college and a short time in the aircraft business he went into the railroad industry, and eventually retired from the executive department of the Southern Pacific Company.

David's well-known interest in railroad freight and passenger service, financial development, and history, began when he was a teen-ager. His superb books on the railroads of California, Nevada, Arizona and New Mexico are as important for their general treatment of western history as they are for their focus on railroads.

David is also much interested in California local history, and he has published valuable works on both San Francisco and Santa Barbara history.

FRANK Q. NEWTON is another easterner – originally from Illinois – who chose the West as his home. By profession he is an engineer, by avocation he is a communications historian of anything from radio to the Pony Express mails.

In recent year his communications history interests have focused on Far Western Gold Rush mails, expresses, stage lines and mining, all more closely related than many realize. Postal history and related philately are at the core of this interest, and his connection with the great Wells Fargo Bank History Room is of great importance.

Among other things, Frank is an expert photographer. He uses his photography

skills to render usually unreproducible subjects into usable pictures with outstanding results. In recent years he has been working to compile a collection of photographs of members of the Los Angeles Corral of The Westerners.

KONRAD F. SCHREIER, JR. was supposed to be a native Californian, but the Santa Barbara earthquake caused his parents to change their minds. So he was born in Evanston, Illinois. From then until military service caught up with him in 1944, he spent a great deal of time commuting between Chicago and Los Angeles. After serving in China-Burma-India he went back to school, and about the time he finished he moved to Los Angeles for good. For a number of years he worked as a research and development engineer for industry.

He has been a writer of books and specialty magazine articles, and historical consultant and technical adviser to the movie and TV industry, and anything else to which his American and technological history bent may be applied.

DONALD E. TORGUSON is a native Californian. After serving in the U.S. Navy in World War II he joined the Los Angeles County Sheriff's Department where he attained the rank of sergeant before resigning to enter the field of education. He now teaches history and journalism for the Los Angeles Unified School District, and has his B.A and M.A. from California State University, Northridge.

Don's interest in western history is both professional and an avocation. He has been an officer of both the Death Valley '49ers and E Clampus Vitus, and is associated with these and other historically oriented organizations. His ability to speak is famous in the Los Angeles Corral. Still remembered is the time he filled in with an interesting, entertaining talk on minutes' notice when a speaker did not make it to the meeting.

Don is one of the real contributors to the Los Angeles Corral of The Westerners, and he can handle any assignment he accepts. At this writing (1985) he is the Corral's Deputy Sheriff.

AND THE PRODUCTION CREW

THE CLARKS, father Arthur H. and son Robert A., are essential to the enterprise. They assumed the responsibility of transforming the manuscripts and all into the type for this *Brand Book 17.*

HENRY H. CLIFFORD acted as an assistant editor and read practically everything in this *Brand Book.* His comments and suggestions were always constructive. He also allowed the use of his Edward Borein sketches which appear on our endpapers.

RICHARD W. CUNNINGHAM was the art director for *Brand Book 17* as well as an author for it. His artistic contributions include the dust jacket, title page, the illustrations for his contribution, the maps for Richard F. Logan's contribution, and the magnificent key letters throughout *Brand Book 17.*

DONALD DUKE, publisher of Golden West Books, took the time to make numerous helpful editorial comments.

NANCY BUELL SCHREIER, the editor's wife, an author in her own right, undertook the copy editing of practically everything in *Brand Book 17*.

The Editor is deeply thankful for the help of these contributors and the members and officers of the Los Angeles Corral of The Westerners who made *Brand Book 17* possible. Without their contributions and support it never would have come to pass.

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