

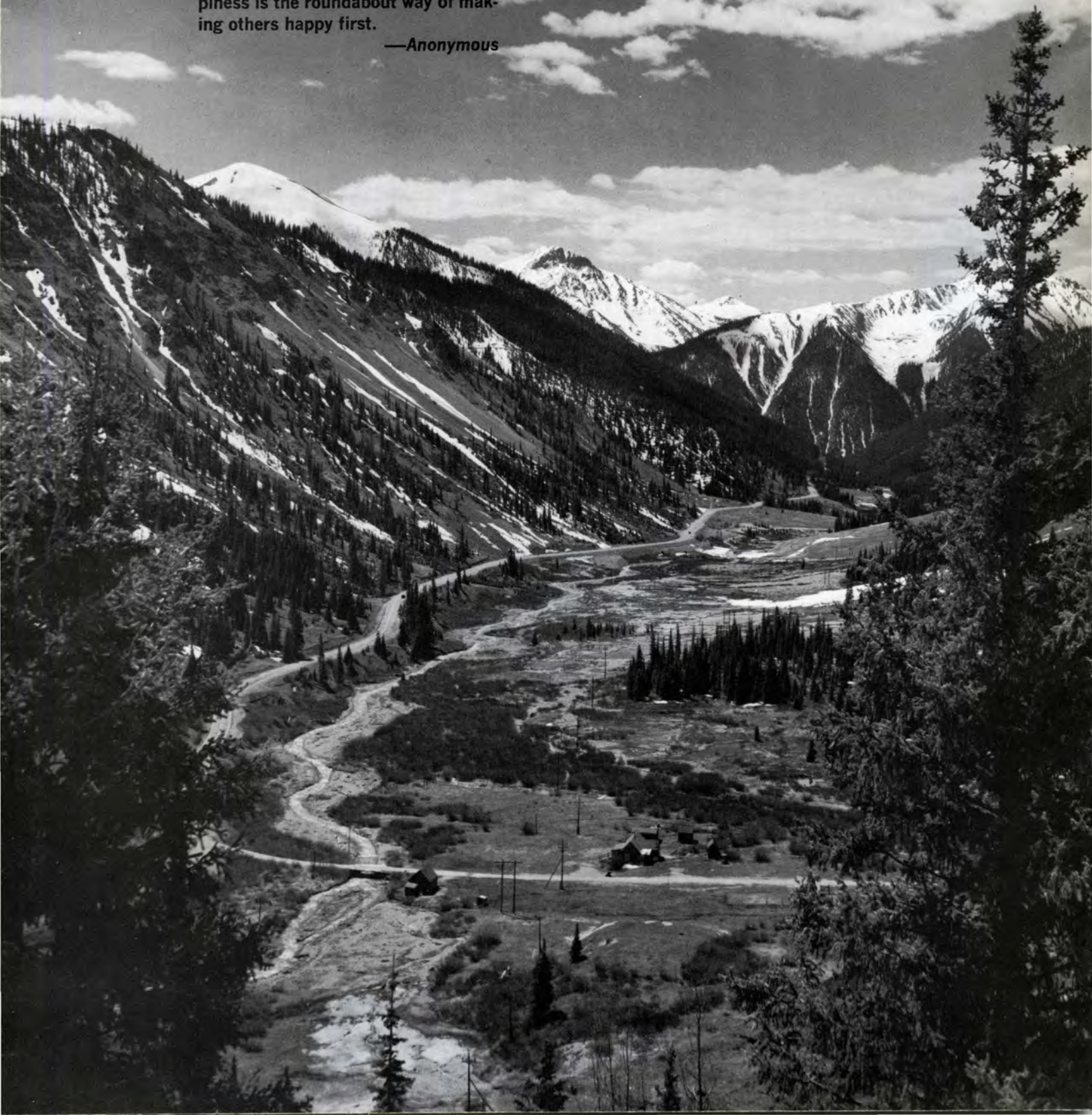


THE *Luffkin* **LINE**

MARCH-APRIL • 1971

The shortest path to your own happiness is the roundabout way of making others happy first.

—Anonymous



MACHINERY DIVISION

Sales and Service Offices

ATLANTA, GEORGIA
5190 Antelope Lane
Stone Mountain, Georgia
Phone: 404-939-3119

BAKERSFIELD, CALIFORNIA
2500 Parker Lane
P. O. Box 444
Phone: 805-327-3563

BALTIMORE, MARYLAND
P. O. Box 7
Timonium, Maryland
Phone: 301-666-2102

CASPER, WYOMING
100 Warehouse Road
P. O. Box 1849
Phone: 307-234-5346

CHICAGO, ILLINOIS
18 Grant Street
P. O. Box 382
Crystal Lake, Illinois
Phone: 815-459-4033

CLEVELAND, OHIO
226 Suburban-West Bldg.
20800 Center Ridge Rd.
Phone: 216-331-5722

DALLAS, TEXAS
800 Empire Life Bldg.
Phone: 214-748-5127

DENVER, COLORADO
1138 Lincoln Tower Bldg.
Phone: 303-222-9589

GREAT BEND, KANSAS
North Main Street
P. O. Box 82
Phone: 316-793-5622

HOBBS, NEW MEXICO
P. O. Box 97
123 W. Gold
Phone: 505-393-5211

HOUSTON, TEXAS
1108 C & I Life Bldg.
Phone: 713-222-0108

KILGORE, TEXAS
P. O. Box 871
Phone: 214-984-3875

LOS ANGELES, CALIFORNIA
5959 South Alameda
Huntington Park, Calif.
Phone: 213-585-1201

NATCHEZ, MISSISSIPPI
P. O. Box 804
Phone: 601-445-4691

NEW ORLEANS, LOUISIANA
P. O. Box 73373
Metairie, Louisiana
Phone: 504-885-2841

NEW YORK, NEW YORK
100 Menlo Park Office Bldg.
Room 408
Edison, New Jersey
Phone: 201-549-1023

ODESSA, TEXAS
1020 West 2nd St.
P. O. Box 1632
Phone: 915-337-8649

OKLAHOMA CITY, OKLAHOMA
600 S.E. 29th St.
P. O. Box 95205
Phone: 405-632-2366

PAMPA, TEXAS
P. O. Box 2212
Phone: 806-665-4120

PITTSBURGH, PENNSYLVANIA
Suite 101
201 Penn Center Blvd.
Phone: 412-241-5131

SAN FRANCISCO, CALIFORNIA
5318 Eggers Drive
Fremont, California
Phone: 415-793-3911

TULSA, OKLAHOMA
1302 Petroleum Club Bldg.
Phone: 918-587-7171

LUFKIN OVERSEAS CORP., S.A.
Anaco, Venezuela
Estado Anzoategui
Apartado 23
MGO Phone: 2-4405

Maracaibo, Estado Zulia,
Venezuela
Apartado 1144
Phone: 29102

Bogota, Colombia
Calle 92 No. 21-40
Phone: 361-303

LONDON, ENGLAND
c/o Drexel Equipment (U.K.) Ltd.
123 Pall Mall
Suite 18
Phone: 01-930-2662

SINGAPORE
126 Eng. Neo Avenue
Phone: 660882

EXECUTIVE OFFICES & FACTORY
Lufkin, Texas 75901
P. O. Box 849
Phone: 713-634-4421

C. D. Richards, Vice President
and Sales Manager

W. W. Trout, Jr, Ass't.
Sales Manager

THE Lufkin LINE

MARCH
Volume 46

APRIL, 1971
Number 2

Published to promote friendship and good will with its customers and friends and to advance the interest of its products by LUFKIN INDUSTRIES, INC., LUFKIN, TEXAS



Virginia R. Allen, Editor
Carolyn Curtis, Ass't. Editor

ROCKY MOUNTAIN DIVISION ISSUE

DENVER'S MILE-HIGH HOSPITALITY—Charles F. Wettach . . .	4
SNAPSHOTS BY LUFKIN CAMERAMEN	8
LUFKIN INSTALLATIONS	10
MORE SNAPSHOTS	12
COROD—THE CONTINUOUS SUCKER ROD—Jim Roe	16
LET'S LAUGH	19

COVER: Transparency by William Hamilton, Munich, West Germany

OPPOSITE PAGE: Chattanooga Valley near Silverton, Colorado
—Lester Tinker Photo, Durango, Colorado



OIL FIELD
PUMPING UNITS



GEARS FOR
INDUSTRY AND
SHIP PROPULSION



TRAILERS
FOR EVERY
HAULING NEED

TRAILER DIVISION

Sales and Service Offices

ATLANTA, GEORGIA
1313 Sylvan Road, S. W.
Phone: 404-755-6681

BIRMINGHAM, ALABAMA
3700 10th Ave., North
Phone: 205-592-8164

DALLAS, TEXAS
635 Fort Worth Ave.
Phone: 214-742-2471

HOUSTON, TEXAS
2815 Navigation Blvd.
Phone: 225-0241

JACKSON, MISSISSIPPI
Highway 80 East
P. O. Box 10935
Phone: 601-948-0602

KANSAS CITY, MISSOURI
2405 Nicholson Rd.
P. O. Box 4516
Phone: 816-231-4700

LUBBOCK, TEXAS
709 Slaton Hwy.
P. O. Box 188
Phone: 806-747-1631

MEMPHIS, TENNESSEE
1947 E. Brooks Road
P. O. Box 16309
Phone: 901-397-9382

NASHVILLE, TENNESSEE
500 Paragon Mill Rd.
Phone: 615-833-1051

NEW ORLEANS, LOUISIANA
1835 West Bank Expressway
Harvey, Louisiana
Phone: 504-362-7575

OKLAHOMA CITY, OKLAHOMA
1315 West Rene
P. O. Box 82596
Phone: 405-236-3687

SAN ANTONIO, TEXAS
3343 Roosevelt Ave.
Phone: 512-924-5117

SHREVEPORT, LOUISIANA
U. S. Highway 80, East
P. O. Box 5473, Bossier City
Phone: 318-746-4636

EXECUTIVE OFFICES
& FACTORY
Lufkin, Texas 75901
P. O. Box 848
Phone: 713-634-4421
C. W. Alexander, Vice-President
Marshall Dailey, Fleet Sales
Jim Horn, Mgr.-Branches



SNOW-Capped Rockies form a spectacular backdrop for the shining new skyscrapers of downtown Denver. The city's tallest buildings are Brooks Towers, 42-stories, in the background at left center, and the 31-story Security Life Building in right center. At far left is the classic Civic Center.

Photo Courtesy Colorado Department of Public Relations

DENVER'S

by CHARLES F. WETTACH

PROUDLY perched on the rooftop of America, in the heart of the Golden West, the city of Denver enjoys a position that is unique indeed. From an elevation of 5,280 feet—exactly one mile—one gazes at a backdrop of majestic Rocky Mountains that rises more than twice that height!

In a little more than 100 years, Denver has grown from a sprawling village of tents, occupied principally by gold-seeking prospectors from Kansas, to a buzzing metropolis with an impressive skyline of modern steel-glass-and-concrete giants and a metropolitan population of more than a million citizens from all over the world.

Much of the Old Denver remains. The \$1,600,-000 Larimer Square restoration of a portion of

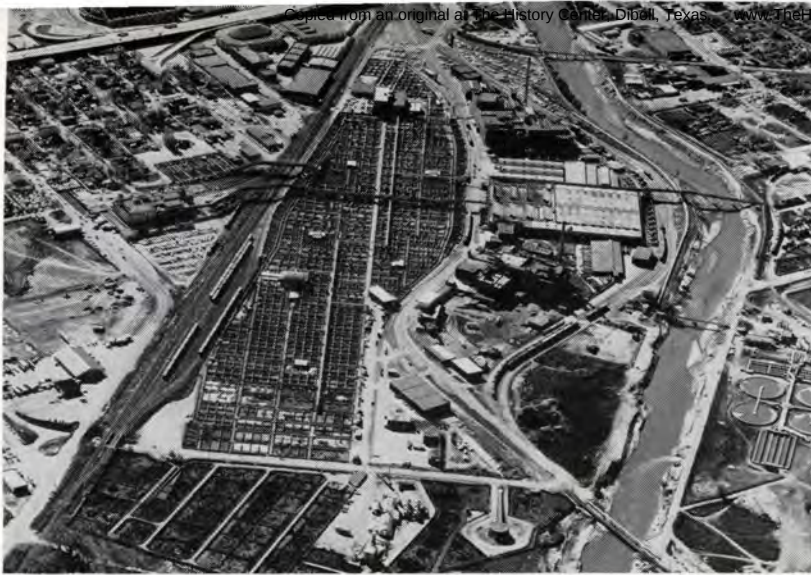
Larimer Street has brought back the colorful galleries, the fragrant flower stalls, the alluring restaurants, and the many authentically-furnished shops of Denver of the 1880s.

The Old Denver Mint is still around too—and still going strong. When the Federal Government took over the operations in 1863, they were principally concerned with coining \$5, \$10 and \$20 gold pieces. Today they're busy turning out most of the nation's metal money. The free tour of the

THE STATE'S first family enjoy gracious living quarters in the Governor's Mansion.

Photo Courtesy Colorado Department of Public Relations





SPRAWLING Stockyards, dating back to the 1880s and still active today, constitute one of the largest cattle and sheep markets in the world.

Photo Courtesy Colorado Department of Public Relations



COLORADO'S State Capitol Building, modeled after the U. S. Capitol in Washington, D. C., boasts of a dome plated with native gold. The thirteenth step of the west side of the building is exactly one mile above sea level.

Photo Courtesy
Colorado Department of Public Relations

ACROSS the 40-acre lawn from the Capitol Building is the graceful City and County Building, flanked by the Art Museum, the Public Library and the U. S. Mint, where most of the nation's metal money is made.

Photo Courtesy Union Pacific Railroad

Mile-High Hospitality

Mint (only Fort Knox can say it is a larger U.S. gold depository) is especially popular. Be sure to see the gold display on the mezzanine.

The Denver Stockyards are another nationally-famous institution. They too date back to the 1880s and they're also still going strong. The sprawling Stockyard's constitute one of the largest cattle and sheep markets in the world.

Other nostalgic reminders of Denver's grand and glorious past are tenderly preserved in such well-known treasure houses as the State Historical Museum in the Capitol Complex, the Cody Museum near Buffalo Bill's modest grave on the top of nearby Lookout Mountain, and the Colorado Railroad Museum which is about two miles east of suburban Golden.

At the State Historical Museum one may enjoy many items which were once associated with Colo-

rado's great Silver King, H.A.W. Tabor, and his equally-famous wife, "Baby Doe." Some of the Museum's fascinating material takes one back to the days of Kit Carson, the early settlers, and the Plains Indians. Some exhibits even go back to the Centennial State's cliff dwellers.

The great Capitol building, on the brow of Capitol Hill overlooking the State's Number-One city, is of a little later vintage. It was started around 1890 but wasn't fully completed until about twenty years afterwards. The top of the dome, which rises 272 feet into the clear Colorado sky, is plated with native gold. The splendid rotunda beneath the dome contains the marble Grand Staircase, eight prominent murals and the Hall of Fame with its celebrated portraits of six pioneers.

The State Capitol and the City and County Building face each other across Denver's Civic Center,



ABOVE Denver loom the state Capitol Building and the Security Life Building, where one can view the mountain panorama while riding the glass-encased elevator to the office building's observation deck.

Photo Courtesy Union Pacific Railroad

a vast 40-acre expanse of artistically-landscaped lawns, trees and walks, interrupted by delightful statuary and flanked by such significant structures as the Art Museum and the Public Library. The Center is especially noted for its Pioneer Monument, an equestrian statue of Kit Carson atop an ornamental fountain which is surrounded by bronze figures of a prospector, hunter and pioneer mother; for its lovely Greek amphitheater; and for its imposing statues *On the Warpath* and *The Bucking Bronco*.

In spite of its enviable heritage, Denver is a modern city in every sense of the word. One of the best ways to convince oneself is to ride the glass, outside elevator of the Security Life Building up to its *Space Walk* (observation deck). The unfolding panorama reaches all the way to the Rockies. By day it's an unforgettable experience; by night it's breathtaking! The First National Bank Building's *Sky Deck* is another excellent vantage point. From wherever one looks, the city's modern buildings form a most impressive skyline.

The Boettcher Memorial Conservatory, a Plexiglas work-of-wonder which arches gracefully over 11,500 square feet of exotic air-conditioned tropical and subtropical plants, is but one of the attractions at Denver's Botanical Gardens. There's



CITY PARK is noted for its statuary, Denver Zoo, an 18-hole golf course, a mini train, two lakes and outdoor orchestra concerts on summer evenings.

Photo Courtesy Union Pacific Railroad

also a garden where young people may become better acquainted with horticulture, and an extensive herb garden which spreads out over eighteen productive acres.

Denver is a city of beautiful parks. About 100 municipal parks are conveniently scattered around. Cheesman Park is noted for its memorial pavilion which is actually a gleaming replica of a Grecian temple—and for its exceptional views of the nearby Rockies. The Park's system of pointers and dials makes it easy to identify many of the most prominent Rocky Mountain peaks which climb skyward from the not-too-distant horizon. On a clear day one may even see Pikes Peak far to the southwest.

But City Park is the most inviting of all. Here one discovers many delightful things . . . an 18-hole municipal golf course . . . facilities for baseball, tennis, bowling, horseshoe-pitching, etc. . . . two lakes for boating or for just admiring . . . spectacular gardens . . . a miniature train to thrill the small fry . . . the exciting Denver Zoo . . . summer-evening band concerts . . . many monuments and much beautiful statuary.

The Burns Monument was done by a Scotch sculptor; the 18-foot Fountain of State by the well-known American, Loreda Taft; and the Children's Fountain is a replica of a similar masterpiece in Dusseldorf, Germany. But City Park's Electric Fountain is the one which makes the most lasting impression—especially when it's illuminated in color.



RED ROCKS Amphitheater is famous for outdoor entertainment and Easter Sunday Sunrise Services.

Photo Courtesy Union Pacific Railroad

Denver's Museum of Natural History is also considered part of the City Park's attractions. Its exhibits of such things as animals, birds, flowers, minerals and people seem to form a continuous parade of fascination. The Campion Collection of Flake Gold, the Nininger Collection of Meteorites, the fossil collection of prehistoric animals, and the collection of artifacts of prehistoric people, are some of the most outstanding accumulations. The Museum's Planetarium has become increasingly popular as America progresses further into the Space Age.

The Mountain Parks, maintained by the City and County of Denver, are one of the civic wonders of the West. Twenty-seven in all, they string out to the west and southwest of the Capital City to

provide an outdoor paradise of almost 13,500 acres. Just about every form of out-of-door recreation which one could hope for is available—and readily accessible because of an unusually fine network of roads. The beautiful Amphitheatre in Red Rocks Park is world-famous for its Easter Sunday Sunrise Services.

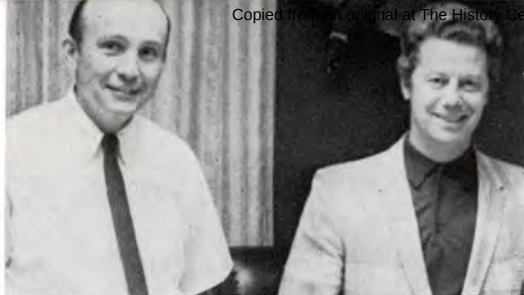
Denver also offers an unlimited number of pleasure-packed side-trips. All the high-altitude charm of Rocky Mountain National Park is only about 75 miles northwest. Colorful Central City, once referred to as the "richest square mile on earth," invites tourists to motor 34 miles west of Denver, see where the street was once paved with silver and look at the celebrated "Face on the Bar Room Floor." At Colorado Springs, about 70 miles to the south, there's nearby Pikes Peak, the inspiring Air Force Academy, and the amazing Garden of the Gods.

Mile-high Denver is tops in many things—but especially in friendliness and hospitality!

ABYSS LAKE is near the summit of Mt. Evans, elevation 14,260 feet, and west of Denver. Mt. Spaulding and Greywolf Mountain are in the background.

Photo Courtesy Union Pacific Railroad





PAUL BEAIRD, left, JOE PAINE
Denver, Colorado



FRED HADENHORST
Samuel Gary Oil Producers
Casper, Wyoming



BILL EVANS
Samuel Gary Oil Producers
Casper, Wyoming



TURNER SMITH
Samuel Gary Oil Producers
Denver, Colorado



C. A. WISCHOFF, left, RON HIGGINS
both with Shell Oil Company, Denver, Colorado



BOB DOTY
Atlantic Richfield Company
Gillette, Wyoming



by Lufkin



GORDON GRAHAM, left, HOWARD HOOKER
both with Stearns-Roger Corporation
Denver, Colorado



BOB SCOTT
Champlin Petroleum Company
Denver, Colorado



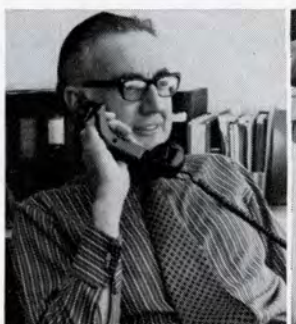
MIKE McGRATH
Stearns-Roger Corporation
Denver, Colorado



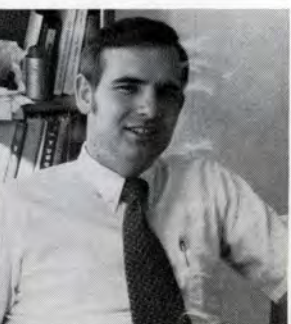
LARRY JESTER
Sun Oil Company
Denver, Colorado



GEORGE RENK, left, JACK DRESSEL
both with Stearns-Roger Corporation
Denver, Colorado



GEORGE BUCHER
Skelly Oil Company
Denver, Colorado



JACK COOK
Tenneco Oil Company
Denver, Colorado



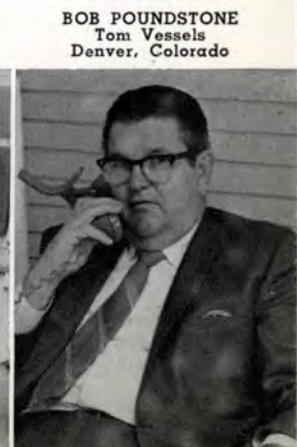
ALLEN BREWER
Anderson Oil Company
Gillette, Wyoming



CHARLIE BEECH
Stearns-Roger Corporation
Denver, Colorado



JACK ROESCHLAUB
Stearns-Roger Corporation
Denver, Colorado



BOB POUNDSTONE
Tom Vessels
Denver, Colorado



CLAIR OPSAL
Amerada Hess Corporation
Williston, North Dakota



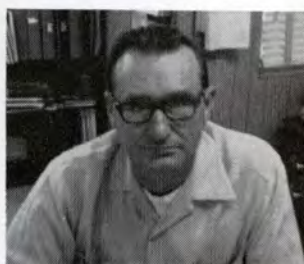
JOE OLDS
Pan American Petr. Corp.
Denver, Colorado



Left to right, BOB SEAY, BILL JACKSON BUZZ BURNS
all with Chevron Oil Company, Denver, Colorado

SHOTS

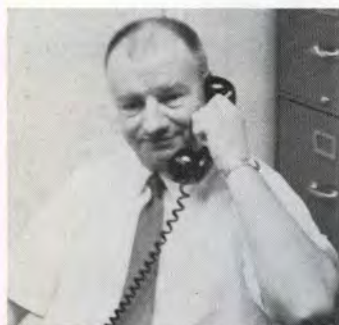
Cameramen



FRED WINTERHOLTER
Mobil Oil Corporation
Rozet, Wyoming



Left to right, DOUG PATTON, FRANK POOL JR.
JACK MULLINS, all with Pool Products & Systems
Denver, Colorado



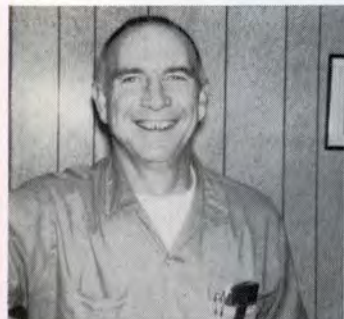
CAL NORDSTROM
Champlin Petroleum Company
Denver, Colorado



RALPH COLLINS
Midwest Oil Corporation
Denver, Colorado



Left to right, BOB SCHROEDER, TROY MORRIS
BART GILES, all with Pan American Petr. Corp.
Denver, Colorado



A. J. DEANS
Anderson Oil Company
Gillette, Wyoming



DEAN COX
Samuel Gary Oil Producers
Bell Creek, Montana

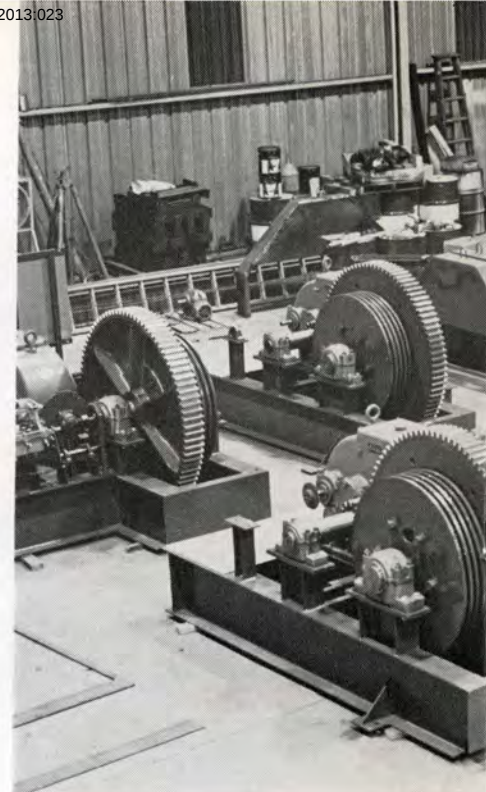


TERRY STEVENS, left, MIKE LACEY
both with Tenneco Oil Company, Denver, Colorado

CHARLES L. JESSEE
Stearns-Roger Corporation
Denver, Colorado

WAYNE NANCE
Tenneco Oil Company
Denver, Colorado





1

2

LUFKIN

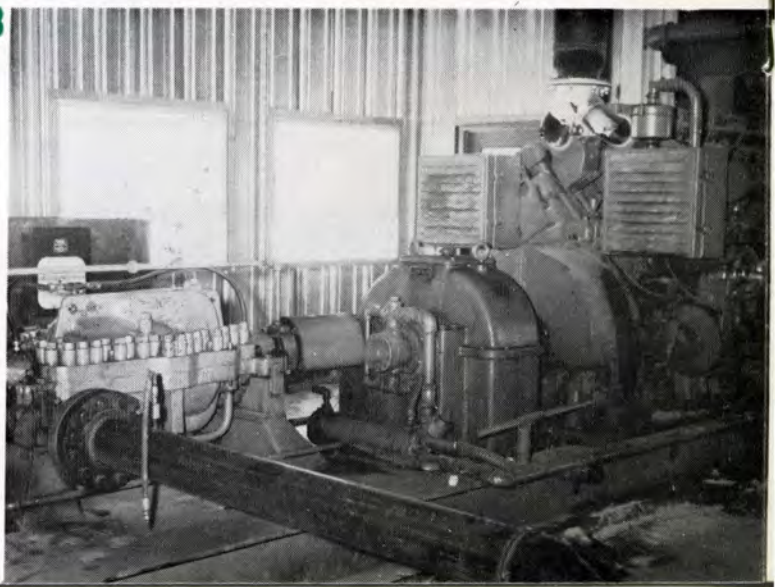


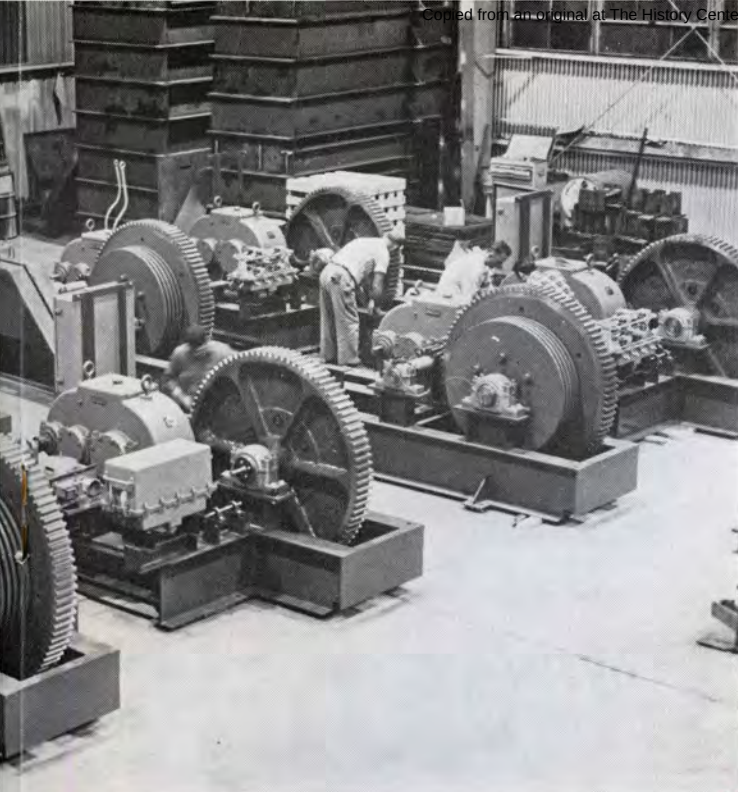
6



7

8





3

Installations

- 1 LUFKIN T-250 Triple Reduction Reducers and Drum Gear Hoists, Decker Creek Dam, Austin, Texas.

Photo by Stewart Engineering & Equipment Co., Richardson, Texas

- 2 PARTIAL view of 10 LUFKIN T-195H Reducers and Drum Gears during installation on Calaveras Dam, San Antonio, Texas.

Photo by Stewart Engineering & Equipment Co., Richardson, Texas

- 3 LUFKIN T-250 Reducers, Drum Gears and Pinions for Tainter Gate Hoists being assembled on bases with controls and limit switches, Stewart Engineering & Equipment Company, Richardson, Texas.

- 4 LUFKIN M-228D-256-100 Unit driven by LUFKIN HT-333B Gas Engine, Wendel C. Flynn, D. Dynnason #7, Sidney, Montana.

- 5 LUFKIN M-640D-350-192 Unit, Petroleum Inc., Zenith Field, Dickinson, North Dakota.

- 6 LUFKIN M-114D-143-86 Unitorque, Pan American Petroleum Corporation, Casper, Wyoming.

- 7 LUFKIN A1280-192-42 Unit, Atlantic Richfield Company, C & H Field, Rozet, Wyoming.

- 8 LUFKIN NM 1410 Speed Increaser, Belle Fourche Pipe Line Company, Donkey Creek, Wyoming.

- 9 LUFKIN M-228D-246-86 Unit, Skelly Oil Company, Dwyer Field, Dagmar, Montana.

4



5



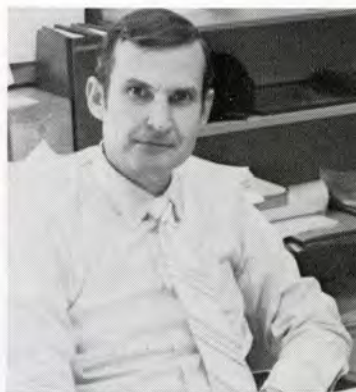
9





BOB DOUBEC, left, DON VICKORY
Petro-Lewis
Denver, Colorado

ALLEN COOK
States Oil Company
Denver, Colorado



GLENN CHAPMAN
Sun Oil Company
Denver, Colorado



CHARLES MORGANTHALER
Sam Gary Oil Producers
Denver, Colorado



Left to right, OLIVER McEAY, Denver, Colorado; LYLE CARPENTER, Lufkin, Texas, both with LUFKIN; TOM GARBER, U. S. Smelting and Refining Company, Salt Lake City, Utah; BOB THOMPSON, LUFKIN, Lufkin, Texas.



MORE



DAN MANLEY
Amerada Hess Corporation
Williston, North Dakota



M. A. (BILL) KILLOUGH
Texaco, Inc.
Keene, North Dakota



ABE LANDERS
Skelly Oil Company
Denver, Colorado



CARL PETTY
Amerada Hess Corporation
Williston, North Dakota



DEAN BURGESS
Inexco Oil Company
Gillette, Wyoming



HARVEY ASHFORD
Tesoro Petroleum
San Antonio, Texas



AL VALENTINE
Champlin Petroleum Company
Denver, Colorado



BILL GRIFFITH
N.C.R.A.
Denver, Colorado

BOB SAYLOR
U. S. Steel Corporation
Johnstown, Pennsylvania

JIM MCGILL
Champlin Petroleum Company
Denver, Colorado

KEN BEAVERS
Pan American Petr. Corp.
Denver, Colorado

BILL HIXSON
Union Texas Oil Company
Denver, Colorado





FRANK RENARD
Skelly Oil Company
Denver, Colorado



WAYNE FINCHER
Flint Engineering
Billings, Montana



TOMMY SHEETS
Inexo Oil Company
Casper, Wyoming



JIM NOLAN
Midwest Oil Company
Denver, Colorado



W. J. TURNER
Sun Oil Company
Denver, Colorado

SNAPSHOTS



EDDIE OLSEN
Saratoga Production Company
Westby, Montana



BILL PARKS
Skelly Oil Company
Denver, Colorado



C. R. MIERCORT
Shell Oil Company
Denver, Colorado



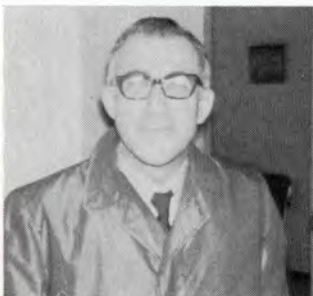
VINCE TESONE
INEXCO
Denver, Colorado



LELAND FRANZ
Skelly Oil Company
Denver, Colorado



WAYNE SMITH
Pan American Petr. Corp.
Riverton, Wyoming



R. E. BROCHAT
Amerada Hess Corporation
Williston, North Dakota



ARTHUR B. PARKER
Atlantic Richfield Company
Gillette, Wyoming

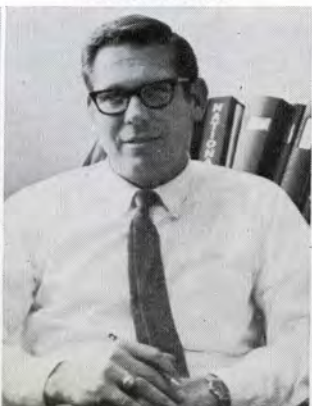
IRA LEE ELLIOTT
Continental Oil Company
Dickinson, North Dakota

JIM MASSEY
Tenneco Oil Company
Denver, Colorado

MARVIN DINGES
B. F. Walker, Inc.
Denver, Colorado

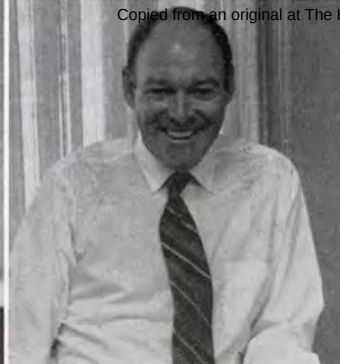
J. D. FISH
Sun Oil Company
Denver, Colorado

JAMES MURPHY
INEXCO
Denver, Colorado

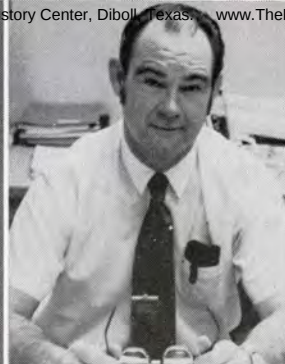




A. H. (BUD) HURLEY
Skelly Oil Company
Denver, Colorado



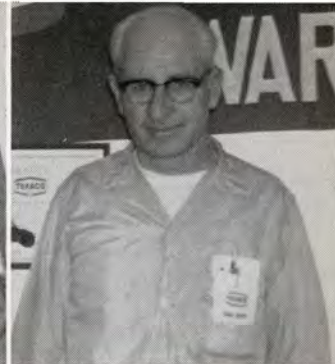
DENIS RUSSELL
Golden Eagle Refining Company
Denver, Colorado



WYATT BROMFIELD
Chevron Oil Company
Denver, Colorado



DAN CHAMBERLAIN
Union Oil Company of California
Gillette, Wyoming



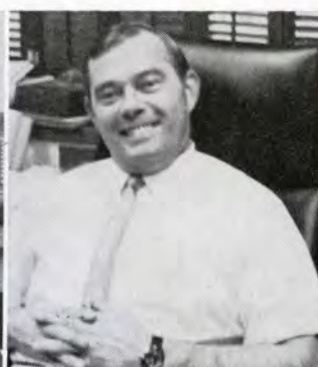
A. R. MARX
Texaco, Inc.
Keene, North Dakota



JERRY BROWN
Skelly Oil Company
Denver, Colorado



ARVO MACKEY
Champlin Petroleum Company
Denver, Colorado



CLYDE JONES
Denver, Colorado

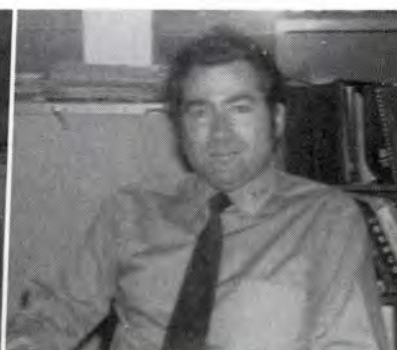


SNAP SHOTS

Continued



S. M. (BUNK) YARBROUGH
Billings, Montana



W. L. WALKER
Cardinal Petroleum Company
Billings, Montana



PAUL SHIRICK
Texaco, Inc.
Charlson, North Dakota



TOM VESSELS
Denver, Colorado



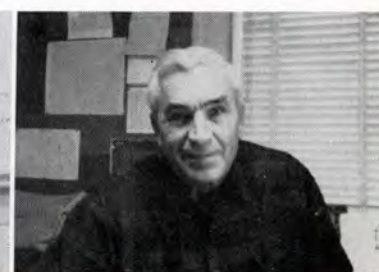
VIC HEIMSAH
Mobil Oil Corporation
Rozet, Wyoming



JOHN EVINGER
Davis Oil Company
Gillette, Wyoming



JOHN MCGUIRE
Powder River Oil Company
Gillette, Wyoming

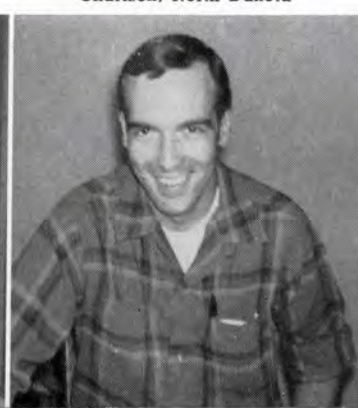


KEN OWENS
Gulf Oil Corporation
Morton, Wyoming

E. J. WHITAKER
Burlington Northern Inc.
Billings, Montana



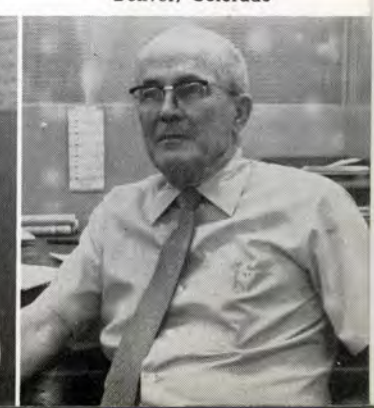
R. E. McDOUGALL
Texaco, Inc.
Charlson, North Dakota



DEWEY ALEXANDER
Stearns-Roger Corporation
Denver, Colorado



RALPH HEIMRICH
Stearns-Roger Corporation
Denver, Colorado





Attending the LUFKIN Machinery Sales Meeting Jan. 4-5 were front row, left to right, RICK MULLER, Dallas; W. A. KIRKLAND, Lufkin; SAM CURTIS, Maracaibo, Venezuela; FRED GRIFFIN, Lufkin; RAY GONZALES, Anaco, Venezuela; W. M. CHAMPION, Odessa; W. T. CROWDER JR., Kilgore; CARL FRAZER, Los Angeles; JOE RANDOL, Houston; R. L. POLAND, Lufkin; BOB THOMPSON, Lufkin. Second row, W. H. MINER, Houston; GUIDO DELGADO, Bogota, Colombia; LUTHER TACKETT, Kilgore; LEN RUZICKI, Calgary, Alberta, Canada; C. D. BOYKIN, Lufkin; JACK GISSLER, Dallas; A. G. BLACK, Hobbs; DOYLE HERNDON, Odessa; CHARLES DYER, Tulsa; DICK COUCH, Bakersfield; T. L. BUTLER, Natchez. Third row, C. D. RICHARDS, Lufkin; B. C.

BURNETTE, New Orleans; JIM ROE, Denver; ELDON HUDSON, Pampa, Texas; MILTON WALTHER, Lufkin; MIKE BOMBOY, Casper; C. E. PETERSON, Great Bend; BEN QUEEN, Tulsa; VIC HALWA, Edmonton, Alberta, Canada; ROBERT SPAULDING, Los Angeles. Fourth row, ERNEST SLAUGHTER, Oklahoma City; DON McCARN, Oklahoma City; T. L. BOWERS, Edison, N. J.; DON STANLEY, Casper; G. W. NICHOLS, Crystal Lake, Illinois; GENE NIXON, Casper; JOHN FINCHER, London, England; ED TULLOS, Edison, N. J.; W. W. TROUT JR., Lufkin; R. B. GIBBS, Houston; LEE STEVENS, Los Angeles; ED PATTERSON, Houston; T. D. LASHLY, Lufkin; JOE BYRD, Lufkin; BEN ELLIOTT, Lufkin; JACK HILL, Odessa.



Attending the LUFKIN Gear Sales Meeting Nov. 9-10, 1970, were front row, left to right, C. D. RICHARDS, Lufkin; JOHN FINNEY, Pittsburgh; BILL HANOVER, Pittsburgh; HUGH McWILLIAMS, Baltimore area; JOE RANDOL, Houston; R. L. POLAND, Lufkin; V. J. FAWCETT, Los Angeles; B. C. BURNETTE, New Orleans area. Second row, RICK MULLER, Dallas; BEN QUEEN, Tulsa; CHESTER HORNBUCKLE, Los Angeles; JIM TROUT, New York City area; JIM PARTRIDGE, Lufkin; CHARLES DYER, Tulsa; E. M. TATE, Lufkin; OLIVER McKAY, Denver. Third row, G. W. NICHOLS, Chicago area; JOHN SWANSON, Cleveland; DAVID BISHOP, Atlanta area; BILL TROUT, Lufkin; BOB THOMPSON, Lufkin; W. C. SHERMAN, San Francisco area; R. W. NICHOLAS, Chicago area; W. T. LITTLE, Lufkin; DAVID REMICH, Pittsburgh.

Right: Front row, left to right, CHUCK EDELEN, Pan American Petr. Corp., Ft. Worth; GEORGE FORD, Pan American Petr. Corp., Calgary, Alberta, Canada; R. L. POLAND, LUFKIN, Lufkin; BOB McCLUSKEY, Pan American Petr. Corp., Ft. Worth. Second row, EDDIE BATES, Ceramic Cooling Tower Company, Ft. Worth; R. L. YOUNG, Anadarko Production Company, Ft. Worth; W. T. SCAGGS, Pan American Petr. Corp., Ft. Worth; FRANK MARTIN, Pan American Petr. Corp., Ft. Worth; RICK MULLER, LUFKIN, Dallas. Third row, BILL BARTHELEMY, American Petrofina Company of Texas, Dallas; GENE HAVARD, Cenard Oil & Gas Company, Dallas; DON SABEC, Ceramic Cooling Tower Company, Ft. Worth; ROGER SCAGGS, Saigon, South Vietnam. Fourth row, JIMMY RODGERS, Pan American Petr. Corp., Ft. Worth; RILEY WEBB and DOYLE BOWERS, both LUFKIN, Lufkin.



S. SWENSON
Cardinal Petroleum Company
Billings, Montana

W. H. MALOCH JR.
Burlington Northern Inc.
Billings, Montana

AUBREY RODDY
Saratoga Production Company
Westby, Montana

N. D. YOAST
Texaco, Inc.
Charlson, North Dakota



COROD...*the* CONTINUOUS

By JIM ROE, Manager

Rocky Mountain Division, Lufkin Industries, Inc.

WHEN I first saw the Corod in Canada, my first thought was "Why didn't somebody think of that before?"

Most of us associated with sucker rod pumping possibly have thought numerous times of the desirability of eliminating pins and boxes from the sucker rod string. Attempts have been made with various types of wireropes but now a solid rod.

Here's the story. The continuous rod or Corod is based on original research begun by a metallurgical-engineering team in Edmonton in 1964.

Their objective was to develop a continuous sucker rod which met every API specification and eliminated many problems inherent in the conventional jointed string.

Their success is the story of many triumphs, not the least of which was a practical means of transporting thousands of feet of continuous rod on a reel which meets all road clearances and safety standards.

Corod is a one-piece steel sucker rod manufactured from AISI 1036, API Class C material with a minimum tensile strength of 125,000 psi. It is received from the steel mill in coiled lengths of 600 to 1200 feet. The coils are straightened, custom cut to length, flash-butt welded and drawn to the desired diameter. Various diameters are drawn if a tapered string is specified. All welds are ultrasonically inspected and tested. The entire string is heat treated by passing through a high-temperature induction coil. The rod is cleaned by shot blasting before being spooled on the transport reel.

Corod offers a weight saving of approximately 8 per cent by the elimination of joints. Tapered string weight savings are from 15 to 20 per cent, reducing stresses on the rods and reducing power requirements to run the pumping unit.

To start Corod in the well, a short length is spooled from the transport reel (or service reel) into the rod guide and directed to a pair of opposed centralizing rollers mounted on the mast. It is then passed through an hydraulic safety clamp and the traction gripper mechanism, below which

the bottom hole pump is attached to the rod by an API coupling adapted for this purpose.

The traction mechanism—in reality a four-link roller chain in which the two center links are replaced by specially-designed urethane grippers—is hydraulically driven at speeds which will pull or run the rod up to 200 f.p.m. Gripper pressure against the rod is variable and is controlled automatically by a pre-set pressure valve.

Since Corod is coiled under tension and natural forces will cause the rod to attempt to spring back to a straight-line configuration, there is no need for a reel drive mechanism. Drag (against the reel) is applied at the hub through a standard automotive type drum-and-shoe braking system.

Three basic pieces of equipment are necessary: the self-propelled gripper rig, the transport reel and the service reel. Accessory equipment consists of a guide to direct the rod from the transport or service reel to the equipment over the wellhead, clamps, top- and bottom-hole connectors and, if required, paraffin scrapers.

Initially, Corod is run into the well from the transport reel. During routine servicing, the rod may be spooled to or from the service reel without further need for the transport reel.

The gripper rig is truck-mounted. It is fitted with a mast, an independent power supply, hydraulic equipment and the operator's console.

A small powered traveling block rigged on two lines supports the Corod when the string is clamped off. It also is used to remove the horsehead, wellhead parts and other equipment.

The mast also supports the guide, or arched chute, through which the rod passes back and forth between the reel and the gripper rig.

The traction mechanism is driven on standard roller chain sprockets, the outer links of which are driven by variable speed hydraulic motors from the operator's console. Rated pulling capacity is 30,000 pounds. Lateral pressure applied against the rod by the grippers is regulated automatically.

In case the rod should slip or be dropped by

SUCKER ROD

COROD is a one-piece steel sucker rod manufactured from AISI 1036, API Class C material with a minimum tensile strength of 125,000 psi. It is received from the steel mill in coiled lengths of 600 to 1200 feet





COROD offers a weight saving of about 8 per cent by the elimination of joints. Tapered string weight savings are from 15 to 20 percent, reducing stresses on the rods and reducing power requirements to run the pumping unit

the grippers, a back-up safety clamp, mounted directly above the traction unit, is closed automatically. An accumulator maintains a reserve of hydraulic pressure for this contingency.

The service reel is a collapsible device used only at the well site and is transported to and from jobs as part of the servicing unit load. Folded, it measures 20 inches by 16 inches. It opens to 28 feet in diameter.

The transport reel is a 20-foot trailer-mounted ring into which the Corod is coiled at the factory. The reel is tilted to permit highway travel within legal clearances.

The advantages of Corod include complete system design, no pins—no couplings, increased ten-

sile strength, lighter rod loads, reduced downhole friction, less tubing wear, no bothersome torque makeup, ideally-balanced tapers, minimal manpower requirements and minimal rig costs.

Other advantages include total operation supervision, 65 to 85 per cent fewer failures, higher yield strength, minimal horsepower requirements, reduced crooked-hole problems, use of smaller tubing, 99 per cent less rod handling, elimination of paraffin scrapers, faster rod running and smoother operation.

Lufkin Industries, Inc. has recently signed a marketing agreement with Pool Company to sell the continuous rod. The rod will be manufactured by Corod, Inc. in a new plant in Odessa, Texas. Pool Company rigs are now available in West Texas and Wyoming. Lufkin representatives will be providing more details on the Corod concept soon.



Did you hear about the girl whose fella didn't smoke, swear or ever make a pass at her? He also made his own dresses.

The young man faced his fiancée.

"Before we get married, I want to confess about some affairs I've had in the past."

"But you told me about those a couple of weeks ago," answered his girl.

"Yes, darling," he explained, "but it's the past two weeks I'm talking about."

There was a young lady from Chase
Whose girdle grew too tight to lace.
Her mother said, "Nellie,
There's more in your belly
Than ever went in through your face!"

Stop praising a woman and she thinks
you don't love her anymore. Keep it
up and she'll think she's too good
for you.

Contrary to baseballs' claim, it is
NOT America's number one sport.
It's broad jumping.

Perfume saleswoman to customer:
"This one has been banned by
Planned Parenthood."

"What has 1000 legs and a cherry?"

"I don't know, Mr. Bones. What
has 1000 legs and a cherry?"

"Five hundred chorus girls and a
Tom Collins."

A Golddigger is a sexpot with a soft
spot for a rumpot with a jackpot.

The midget married a million dollar
gal and fell right into a fortune.

Boy: "How many does it take to
make you dizzy?"

Girl: Three. And the name's Daisy."

Lulu isn't really a gold digger—she
just hates poverty worse than sin.

Odd-ball Son: "Father, I'm in love
with a girl."

Father: "Thank goodness, you made
the right decision."

"Heart's all right," said the doctor,
"lungs are all right, too. Now show me
that little thing that gets all you
girls into trouble."

The airline stewardess hesitated.

"Hurry up," said the doctor. "Open
your mouth and stick out your tongue."

A blind man entered the nudist
colony. The manager of the colony said
it was a very touching sight.

At school, Johnny was telling about
refurnishing their house.

"We've been having arguments al-
most every day about our new furni-
ture, but I guess it's all settled now,"
he said. "Mommy got her way about the
living room, but Daddy won on the
bedroom deal."

"Yes?" encouraged the teacher.

"Yes," replied Johnny. "Mommy
wanted twin beds, but Daddy said that
he commuted every day and he'd be
darned if he were going to commute
at night."

Luke says his girl friend is so con-
ceited she has an unlisted bust
measurement.

In recent years Bert had gotten so
corpulent that when he got a shoe shine
he had to take the boy's word for it.
One morning, just as he stepped out
of the shower, his wife got a side view
of his expanded contour.

"Bert, dear, you're going to have to
diet."

"Dye it!" he exclaimed, "My gawd,
what color is it now?"

We asked Susie what she thought
about hip-huggers, and she said, "nope,
I like my men taller."

"Why do you have to buy such ex-
pensive brassieres?" the irate husband
snapped as he looked over his wife's
latest department store bills. "You
certainly don't have much to put in
them."

"If that's the way you figure," she
replied sardonically, "then you haven't
needed a new pair of shorts in years!"

"If you're worried about your May
and December wedding," advised the
elderly groom's doctor, "eat a lot of
rye bread."

Later in a supermarket the groom
told the clerk to give him \$5.00 worth
of rye bread.

"Five dollars worth!" exclaimed the
clerk. "You don't want that much rye
bread. It'll get hard!"

"In that case, give me \$10 worth!"
snapped the old man.

There's a slogan making the rounds:
"If our panties aren't the best thing
in the world, they're next to it!"

Sign in Golf Clubhouse Shower: "Do
not wash balls with bath towels. Use
wire brush."

The traveling husband had been sus-
pecting his wife for some time. One
week he slipped into town on Thursday
night instead of Friday.

He crept silently up to the bedroom.
Surely enough, there was a strange
man with his wife. Both were blissfully
asleep.

The husband silently retraced his
steps downstairs and out of the house,
returning shortly with a huge flat rock.
Again he climbed the stairs, and with
great care, placed the huge flat rock
squarely on the stomach of the strange
man, and quietly left.

Soon the intruding man awoke. Feel-
ing the weight on his stomach, he looked
down at it startled and mystified.
Climbing laboriously out of bed, he
held the big rock to him and carried
it to the open window.

Just as he heaved it out with a mighty
effort, he noticed a larged penciled
note attached to the underside of the
huge flat rock, which read: "You have
two seconds to cut this string."

"I've been married four times. Do
you think I'm a loose woman?"

"No, dearie; you're just a busy-body."

IT'S **BIG** ALL RIGHT-

THE BIGGEST CRANK BALANCED UNIT EVER BUILT
AND IT DOES AN EVEN **BIGGER** JOB



LUFKIN M-640D-305-192 UNIT, DRIVEN BY A LUFKIN H795 ENGINE
UNION OIL COMPANY OF CALIFORNIA, FARNSWORTH, TEXAS

LUFKIN MARK II UNITORQUE

192" STROKE

PEAK TORQUE CAPACITIES

1,280,000 IN. LB.

912,000 IN. LB.

640,000 IN. LB.

456,000 IN. LB.

POLISH ROD LOADS
30,500 TO 42,700 LB.

The relative size of this LUFKIN H-795-CCW Engine, to the 192" stroke LUFKIN Mark II Pumping Unit, which it is driving, speaks to the operator more eloquently than 10,000 words, on two important subjects—

1. The man-sized job that even a small LUFKIN Engine can perform!
2. The small horsepower capacity required of the LUFKIN Engine to drive the patented uniform torque system of this massive Mark II, the world's largest crank counterbalanced pumping unit!

YOU CAN
RELAX WHEN
IT'S LUFKIN
EQUIPPED



LUFKIN

INDUSTRIES, INC.

LUFKIN, TEXAS