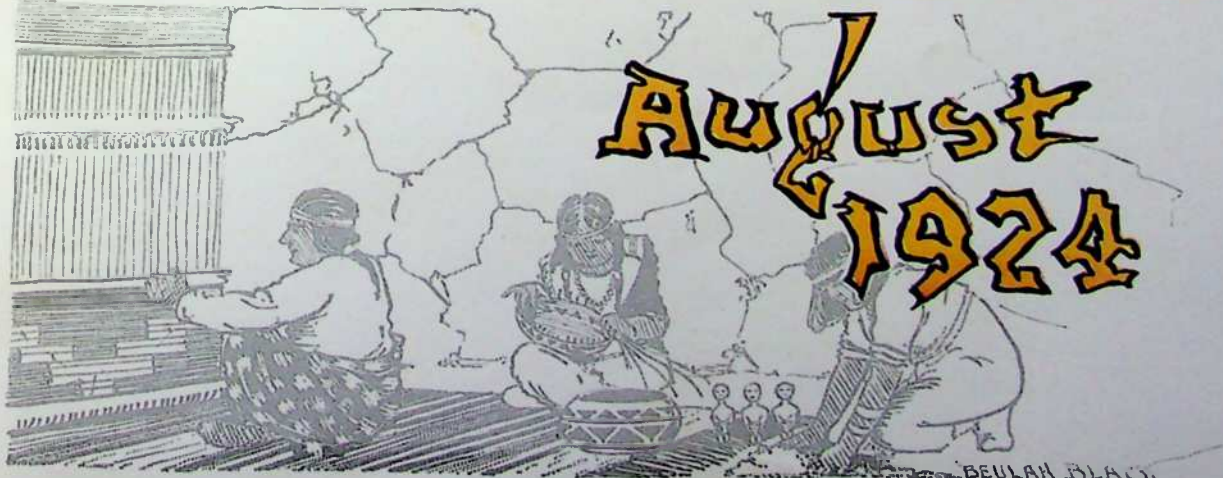


# THE Monitor



August  
1924



## Village of Walpi, Arizona



FAIR OUT on the Painted Desert, 90 miles from Flagstaff, Arizona, are three villages peopled by the fast-vanishing tribe of Hopis. Resting on the rims of three mesas, reached only by precipitous trails, the ancient colony looks out over the picturesque plain for hundreds of miles. Less than 3,000 souls remain of the once powerful tribe. Peaceful, seclusive and devoutly religious, they live according to the same primitive customs of their ancestors who have left no record behind of the place or time of their coming to the Painted Desert. On the cover of this MONITOR is a picture of Walpi, one of these villages, and even the Valley of the Kings in ancient Egypt affords no more interesting revelations to the paleface investigator than do these picturesque pueblos of the Arizona mesas.

## THE OLDEST CIVILIZATION EXTANT

*By H. D. McVay, Arizona Manager*

THE COVER for this issue of THE MONITOR shows a photo of Walpi, the eastern or first mesa, a Hopi Indian village, and the second mesa, Mashonganavi, is seven miles to the west, the third mesa, Oraibi, being ten miles west of Mashonganavi. These villages are fortresses located on the Painted Desert about ninety miles north of the Santa Fe Railroad in the State of Arizona. They are reached by steep trails from the valleys 500 feet below, and are in a real desert, where water, food and fuel are wrung from the country only through the most pathetic and heartbreaking efforts. One can picture these people striving through centuries against Nature's handicaps and the relentless enemies who were the cause of the fortifications being built.

This country was occupied by these Indians long before King Tut was in his glory, and while old Egypt is something of the past, these people, with no change in environment or customs, are living their lives much as they were lived by their ancestors in the dim and distant past. It is a civilization centuries old in existence in our time, and in our own country, exactly as it has existed for thousands of years. The religious worship, customs and hardships as of the past are here as of the present.

Below the mesa are the corn fields, which are planted several kernels to a hole, each planting about nine feet apart. The grain is planted in the sand to a depth of about three feet, where the moisture is conserved, and when the Indian corn is developed the ears lay on the

surface of the sand. Peach trees also grow here, with the trunks and roots eight to ten feet below the surface of the sand, the sand covering the entire trunk of the trees, and in gathering the crop one has, in many instances, to stoop to reach the fruit.

The houses are built in terraces, two and three stories high, the roof of the lower and outer rooms being the yard for the homes above, while the occupants of the third tier of houses use the roofs of the second story for their court yards. The second and third stories are reached by means of ladders. No stairs are visible except the old stairway cut in the stone from the foot of the mesa in the valley and reaching to the top of the mesa. This stairway was at one time the only path by which the inhabitants or their enemies could reach the fortresses, which made defense an easy matter.

When one realizes that these people were and are farmers and that the houses are 500 feet above the fields; that water, grain and supplies of all sorts were and are transported up this laborious climb, and that all crops, fuel and food must be wrestled from the sandy, barren sun-scorched soil, one wonders with admiration that this nation should have endured through the centuries.

The Hopi Indians are now known to be the descendants of the oldest civilization on this continent and to have come from the south. Scientists are now confident that this civilization will prove to be the oldest of any known. A bit of the past looming out of the present age.

Above—Example of the typical Western false-front saloon building, erected some fifty years ago. This was and still is the main business block in Unionville, Montana.



# Montana

**T**HE HISTORY of the origin of Montana is lost in obscurity, the same obscurity from whence came the other regions of this earth.

Some millions of years ago, four or five, it doesn't matter a great deal, this portion of the Rocky Mountains and plains was an ocean bed. We guess this from a study of various geological and fossil formations. After a period of years it rose and became dry land,

being gradually covered with a very dense growth of vegetation as rank and varied as that of the tropics. This is unexplainable but true, as evinced by the coal and oil deposits. Conditions were as unstable then as now, the climate changed, it grew colder and colder. The

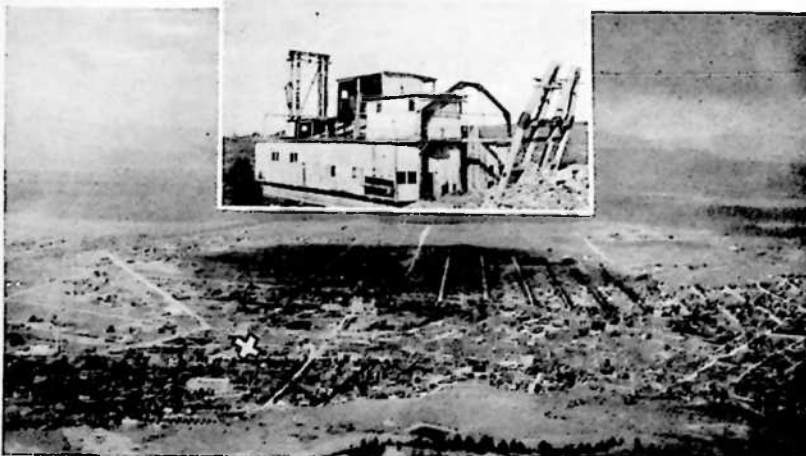
By E. A. Christensen

Lineman, Missoula, Montana

summer became shorter and shorter until winter was the only season. A huge sheet of ice slid down from the north and covered the land as a huge blanket. That melted, but left behind its mark in the form of innumerable ridges and valleys. We have an idea this occurred a quarter or a half million years ago. We are not sure, however. We only guess.

From the time of the glacial epoch, as the age of the ice blanket was called, to the time Lewis and Clark crossed Montana on their way to the coast, we have little definite, proven history of man in Montana. There were Indians here long before that, a very intelligent, industrious race, but a race that left no permanent records other than the very frail legendary history left by nearly all primitive peoples. The Indian was in the stone age of his existence, an age when art consisted only in personal adornment and had not reached the higher phases of poetry, politics and moving pictures. Pickings were pretty hard and it kept the Indian busy rustling a living and keeping his squaws from hobbling their hair. The few records we have of ancient aboriginal existence are in the form of stone implements and weapons and a few crude pictures scratched in the rocks. The American Indians with few exceptions were nomads and built no permanent dwellings or tombs.

In 1535 (our time) one Cabeza de Vaca, a Spaniard, two soldiers and a Moor named Estevancio may have visited Montana. From their description of the country visited farthest north, it seems they reached the Sun river

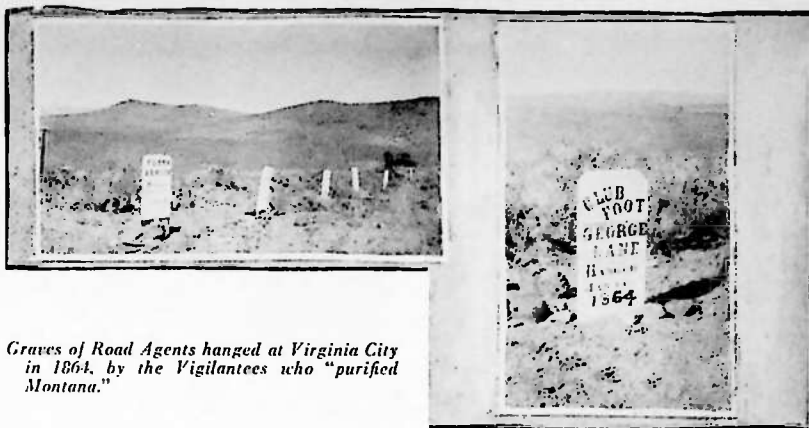


Bird's eye view of Helena, "the Last Chance gulch of 1864." The cross indicates exact location of the first gold discovery claim. Insert—Gold dredge at Virginia City used in final cleanup of the famous Alder Gulch.

country in Saskatchewan, Canada. We have little or no proof of this or other Spanish expeditions leaving Mexico and coming this far north. Baron La Hontan, a Frenchman, in his letters to his brother, written when he was exploring in the middle west or as far west as Missouri, claims to have seen men whom he thought were a remnant of one of the earlier Spanish expeditions. This was between 1690 and 1703. La Verendrye, another Frenchman, later on, saw men that plainly had white blood in them, blue eyes, whiskers and fair hair. We have fairly good reason to believe, therefore, from the testimony of all available records, that there were white travelers in Montana during the Seventeenth century, if not the Sixteenth.

La Verendrye in his quest for the Western Sea has been credited with being the first white explorer to have visited Montana and he is supposed to have come as far west as Helena. This viewpoint, held for many years, has been nearly thrown to discard in light of very recent historical studies, together with the finding of a leaden plate near Fort Pierre, South Dakota, which La Verendrye buried June 30, 1743, at a spot not far from his most westerly point of exploration. If Montana was visited at all, only the southeastern corner was touched. There is some evidence that fur traders came to the mountain regions of the state in numbers prior to 1800. Old Hudson Bay Company traps have been found of a type much used in the Seventeenth century and the meager records of the fur traders themselves indicate a familiarity with the whole fur bearing mountain region. These records, mainly in the archives of the Hudson Bay Company, are hardly accessible and then only to students with a thorough knowledge of French and the Chinook jargon.

The first written records of Montana are those compiled by Lewis and Clark. In them we find, among other things, that few of the mountain Indians were familiar with the white man. This would seem to indicate that white men were pretty scarce prior to 1805, the date



Graves of Road Agents hanged at Virginia City in 1864, by the Vigilantes who "purified Montana."

of the first official United States exploration of its new territory, Louisiana. Practically all of Montana was included in the Louisiana Purchase of 1803.

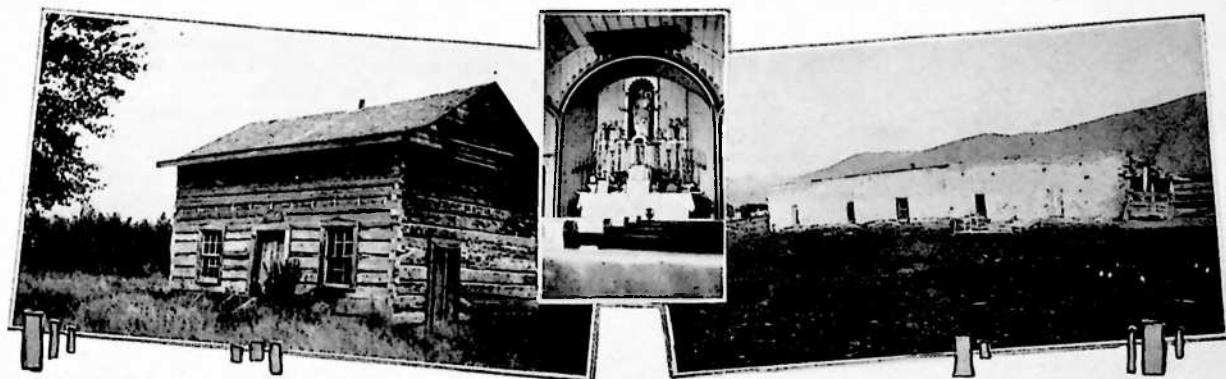
History prior to 1803 concerning Montana fills but few pages. A few hundred volumes have been written of it since. This, of course, proves the last hundred years are the most important and the other four or five million don't count. Or does it show a lack of information? History is like every other branch of science—the less known the less mentioned.

Nevertheless, after Lewis and Clark made Montana safe for the Missourians, Democrats and Swedes, history started with a bang and has continued down to several years ago, when things took a slump. We have a very short space to set down a few of the high lights of medieval Montana and will leave the details and accounts of the slump to school texts and *The Saturday Evening Post*—particularly of April 19, 1924.

Montana was first sought for its furs, then for its gold and more lately for its timber and agricultural treasures. It had all in abundance, the furs were taken to clothe the shivering nobility of Europe and make hats for the pre-

Civil war gentlemen. This accounts for the beaver. The buffalo went to make coats for the army and meat for the railroad construction camps. The rest of the animals very prudently made themselves scarce or didn't have beautiful hides. Hence they are yet to be found if one knows where. Enough gold has been taken from the ground to pave a fair-sized town and there is enough yet to occupy a small army of optimistic prospectors and wild cat mining companies. A large portion of the timber is standing—though the struggle has been unequal. The lumber companies and forest fires are doing their best and will eventually succeed in denuding the land. The copper mines and oil wells, though apparently an asset, are really a thorn in the side of prosperity, producing an era of cheap politics and precarious financial conditions. Get-Rich-Quick and work-little policies have even threatened the most stable and solid of Montana's greatest treasures—its agriculture.

Trapping and hunting were the main sources of revenue and support before 1852. First the all-powerful Hudson Bay Company covered the region with its half-breed and Iroquois cruisers. Then the Rocky Mountain Fur Com-



Left to Right—One of the oldest structures in Montana, built and used by Fr. Ravelli as an apothecary shop and study. Is in the town of Stevensville. Interior St. Mary's Mission church in Stevensville, built about 75 years ago. Old fort near Stevensville, built 70 years ago by Maj. Owen and used as a place of refuge by settlers in the Bitter Root valley. Now occupied by a farmer.

## BILLINGS

By L. G. DeLong

On July 3, twelve men of the Billings and Laurel exchange groups, took rod in hand and worms, grasshoppers, etc., to catch fish and journeyed into the mountains six miles south of Dean, Montana.

The picture is of the men. The man is frying bacon and eggs, no fish. Yes, we caught some fish, but not enough to hold out as prizes. The men in the picture are, from left to right: George Batchelder, R. E. Coy and son Otis; Ray Bourn, L. G. DeLong, Alex Mutch, Andy Riton, Horace J. Paddington, Buddy Myers and Bill Wilson. The man that looks like Jesse James is Ted Young, late for dinner, and made to cook his own. Ole Solomon, the wild animal trainer, is taking the picture. The chief sport of the trip was Ole. He was lost in the timber and a mountain storm came up. He says that the lightning was striking trees all around him and he ran four miles to camp. His story was checked up, and we find he broke down some 300 jack-pines getting out of the timber and ran one and one-half miles. He was so frightened when he got back to camp that he ate all of Coy's bacon while he was telling his story. We still think he jobbed Ruben Coy but he acted innocent.

Buddy Myers was also lost on the same day and he had to climb a great big pine tree



to see the sun so he could tell which way to go to get to camp. It is a good thing the picture was taken before this eventful day or the censor would not have passed it. There being no ladies within eight miles, Myers got back to camp without the use of pine needles.

Andy Riton and Paddington with Ole Solomon, took on a little Switzerland sport and threw snowballs at each other on the fifth of

July, 6,000 feet elevation. They say Andy, being a Nordic is some climber. He had to carry both Solomon and Paddington back to camp.

Batchelder says he had a fine time, even if he did not catch any fish, but he doesn't see why Myers had to push him off the raft in twenty feet of water with his hip boots on.

The mystery of the trip, was R. E. Coy, manager of Laurel. He knew how far from civilization we were going and he took along his old safety razor, toilet water and every thing, and say, girls, he used them all, too. Did any female of any description promise Rube they would come see him? All answers held as confidential.

The rest of us just *tried* to catch fish.

pany, founded by General William Ashley in 1822, entered the field. This was quickly absorbed by the American Fur Trading Company, founded in 1808 by John Jacob Astor, Pierre Choteau, Bernard Pratt and others. This company existed and flourished until all of the fur worth mentioning had been changed to money and used to build Wall Street. The Missouri Fur Company founded by Manuel Lisa in 1808, existed for some time but was frozen out by

its more powerful rivals. Manuel Lisa was the father of nearly all the early traders, having visited the upper reaches of the Missouri in 1806. David Thompson, a Hudson Bay Company trader, visited the headwaters of the Columbia in 1810, William P. Hunt, John Bradley, Ramsay Crooks, Donald McKenzie in 1810 traveled from St. Louis to Astoria over the Missouri-Columbia river route. Some time before, Lieutenant Pike, of Pike's Peak fame,

discovered one of the sources of the Yellowstone. This was in 1805. Pike was the first American to cross the Rocky Mountains to the Pacific. One of the more intrepid explorers of this early time was John Coulter, a member of the Lewis and Clark expedition, and one whose exploits were so terrifying and truthful that people thought they were fiction. He was the first white man on record to visit the Yellowstone Park.

All of the famous frontiersmen from that time to 1870, almost without exception, figured in the history of Montana; Sublette, Jim Bridger, Kit Carson, Lou Anderson, Captain Bonneville, McKenzie, Berger, D. C. Mitchell, Andrew Dawson, Hugh Glass and hundreds of others whose names are less familiar.

In the early fifties conditions changed, a new element and a more lawless and less hardy one took possession. Gold was discovered, the miner replaced the trapper and fur trader. The miner had strength in numbers, the trader and trapper in their physical strength, endurance and ability to outwit the savage. Gold was first found by Francois Finlay (Benetsee) at a place now called Gold Creek, then Benet-



Probably the oldest cabin in Montana now standing in good repair. Built in 1867 and has been occupied constantly since. It represents the better type of the early miners' cabin.

# Telephone Pioneers of America

No meetings of the Chapter have been held recently, but all of the Pioneers in and around Denver were looking forward to the annual picnic on July 19. This was held too late to get in this issue of THE MONITOR. It was back of Lookout Mountain about a mile west of Hosea Lodge at a beautiful spot which has been used several times by various departments. We hope to have a report of this in the next issue.

All Pioneers who have an opportunity to attend the annual meeting of the National Association should keep in mind the dates—October 10 and 11. The headquarters of this meeting will be at the Edgewater Beach Hotel and all will receive particulars a little later from Secretary Starrett as to railroad and hotel accommodations. It is probable that credentials will be issued which will entitle Pioneers to reduced railroad fare provided they make the round trip over the same route and within the time limit.

see Creek. The last or golden spike on the Northern Pacific by strange coincidence was driven here in 1883. We have it on good authority that this spike was of the common iron variety and not of pure gold, as popular belief has it. The claim has been made that S. N. Caldwell found gold on Mill Creek in the Bitter Root Valley the same year, 1852. This is doubtful and in any case amounted to nothing.

The important first discovery of gold was in 1860 by James and Granville Stuart on Gold Creek. They had tried two years previously but with no luck. The town of American Fork sprang up and that of Pioneer on Pioneer Creek, a branch of Gold Creek, a short time later. These towns were short-lived and not the slightest sign of them exists today. The diversion of the gold rush from California to Montana had started. Bannock was discovered in 1862 by John White and Um Eads (son of the famous St. Louis engineer) on what Lewis and Clark called Willards Creek, but what later became known as Grasshopper Creek. Bannock became territorial capital in 1864. Gold was discovered in 1863 in Alder Gulch. The town which sprang up was called Virginia City and in 1865 the territorial capital was transferred there with the shift of population from Bannock as the placer workings had played out there. In 1864 Last Chance Gulch was discovered. This was the most important strike in the territory, for, when the state was formed in 1889, Helena, the town built in Last Chance Gulch, became capital. Silver Bow was discovered in 1864 and has grown into the modern Butte—the greatest mining camp in the world. Placer working departed as quickly



## Rocky Mountain Chapter No. 8

Applications received since last notice are as follows:

Frederick H. Reid. It is unnecessary to say many words about this new Pioneer who has been eligible for some time, but who waited until he was back in his natural environment to join; which is indeed pleasing to all members of Chapter No. 8. For the information of those who do not know, it might be well to state that Mr. Reid began his telephone service as clerk to Mr. E. M. Burgess just twenty-two years ago.

as it came, leaving in its stead the less spectacular mining for low grade silver and gold ore and copper. The great gamble has become the state's greatest single industry.

A very interesting account might be written of the lumber industry from the time of the first Bunyan drive, through many improvements in methods and machinery to the finest and most modern of mills. The lumber jack—a fast disappearing creature—is worthy of very careful treatment. Cattle raising and sheep grazing were spectacular and are yet important but have received their share, and then some, of eulogy and song. Even yet one sees in the "movies" the desperate struggle between the sheep and cattleman or the cattleman and rustler. The scene is generally Montana or Wyoming with an occasional Eucalyptus thrown in for California's sake.

We have by a series of gigantic leaps and bounds carried our reader through a vast stretch of time, covering the pre-white man period with a graceful sweep of the arm and touching ever so lightly here and there a few of the more important figures and events of the latter. We aren't a historian. We merely seek to please and entertain, giving the few facts we possess in our most generous style; so we will leave things as they are and in the future attempt to discuss a few of the more interesting side lights and high lights of Montana's history, Lewis and Clark's travels in the state, Mullen's survey, transportation difficulties, the Yellowstone Park, and the origin and reason for some of Montana's names. History is not written on a single page, nor in a single day and may not all be written by the same pen.

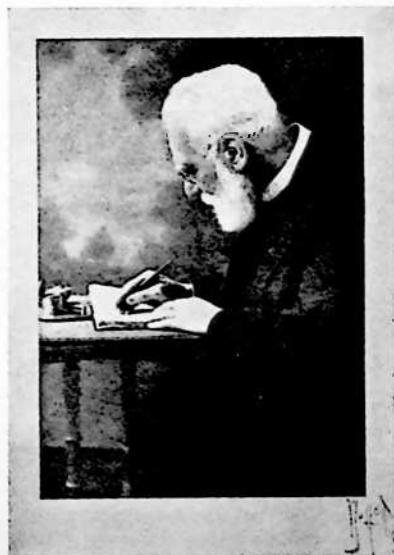
Walter A. Connolly, manager, Billings, Montana. Mr. Connolly is well known to all of the old Colorado bunch, having begun his telephone career as a helper in Denver in June, 1903. He is another graduate from the army of C. L. Titus.

Frank E. Farwell, manager, Great Falls, Montana. Mr. Farwell began his telephone work in April, 1903, with the Automatic Telephone company, having since that time followed the manufacturing and operating lines of the business. He was prominently identified with the "Lane Interests" in Montana, coming with the Mountain States Company at the time of the purchase of these properties about ten years ago.

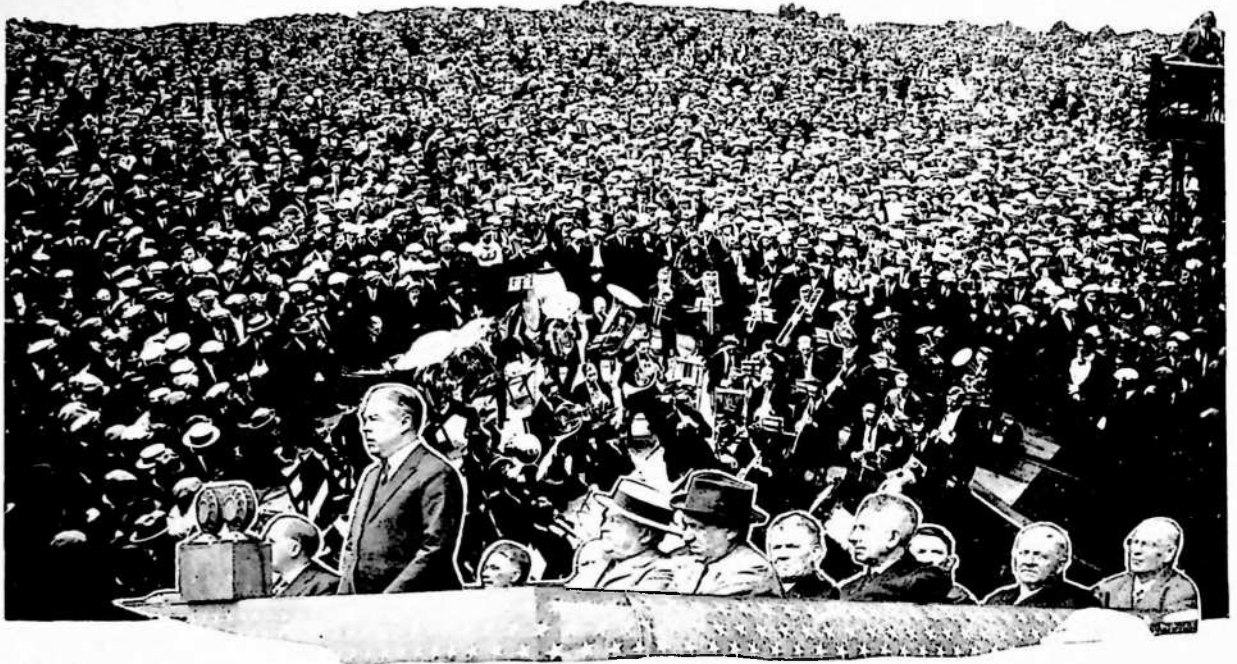
E. B. Shafner, vice-president, Wyoming Telephone Company, Glenrock, Wyoming. Since 1902, Mr. Shafner has been organizing and operating rural telephone companies. His first venture was the Freeland Telephone company and the Ranch Telephone company. At the present time he is operating exchanges at Glenrock, Glendo and Parkerton with large rural development, and is our principal connecting company in the Big Muddy oil fields.



It is as hard to break yourself of good habits as of bad ones. That is why some men will take as long to fail as others take to succeed.



An unusual picture of the late Alexander Graham Bell, inventor of the telephone and teacher of the deaf, in memory of whom the Clarke School for the Deaf is raising a fund to carry on his life work.



## Acres of People Hear DuBois

**T**HE LARGEST industrial audience in the world—thirty-five thousand men and women telephone workers, all of the Bell System family—heard their boss speak at a single noon-hour assembly on June 4.

Intimate personal contact between factory head and factory people through the medium of the spoken word has been established once more, after being lost for years because of the sheer size of modern factories. The honor of ushering in a new era of industrial relationships has gone to the Western Electric Company and its Hawthorne works in Chicago.

The occasion was the dedication of the first public address system to be permanently installed in a manufacturing plant. Charles G. DuBois, president of the Western Electric Company, delivered a brief address, using the new system to carry his words to each one of thirty-five thousand listeners. He dedicated the apparatus to "the doing of the job, the tradition of fairness and the spirit of friendliness."

A clear day, an enormous throng and the presence on the platform of Western Electric veterans of thirty years and more made the event impressive. Mr. DuBois spoke feelingly of the problems of telephone-making and the way those problems are being met.

"I welcome this opportunity to meet you all face to face," he said. "Many of you are

old friends; some, indeed, for more than thirty years. All of you I think of as friends as well as fellow workers. It is a help and an inspiration to me to believe that a real interest in our company brings you here.

"That interest is worthwhile because we are engaged together in a work of great importance to our country. That work is the manufacture of the telephone apparatus and cables needed for the continuous upbuilding of our national telephone system.

"So accustomed has everybody become to the telephone that we forget its far-reaching contribution to the life and prosperity of the entire country. It has completely changed our living habits and our business methods. It has woven the entire country together with a network of fine wires. It has made neighbors of a hundred million people.

"Two-thirds of all the telephones in the world are in the United States. Why? Not because it was an American invention. Not because America is a prosperous country. No, there is a deeper reason. From the beginning all of the activities needed to build up a great American telephone system have been kept working together. Invention, design, engineering, manufacturing, installation and operating, though done by many companies and departments, have all been held together in one general organization—the Bell Telephone System—

headed by the American Telephone and Telegraph Company. Our Western Electric Company is an important, even a vital, part of this great telephone organization.

"For many years this Bell Telephone System has directed all its resources and activities toward one aim—a complete and reliable telephone service all over the United States. This work will not be completed during the lifetime of any here present. In the single year 1923 more telephones were added to the Bell System than in the first twenty-five years of telephone history.

"No great undertaking like this ever made progress without continued hard work day after day, year after year.

"Our work is not crude; it is exact and fine. It must be so to serve its purpose. And in that, it seems to me, is our privilege. The great telephone system whose equipment we make is greatly worthwhile. The fine workmanship of our product is greatly worthwhile.

"Now because our product is complicated and must be accurate, each of us, whether in shop or office, must be skilled in some special part of the work; and because each of us depends on the faithfulness and skill of others, no one of us can be sufficient to himself.

"If a clerk makes a mistake in a shop order or a buyer purchases too little of a certain material, or an inspector passes defective work,



# Recent Instances of Regulation

The Following are Brief Statements of Decisions Relating to  
Telephone and Other Public Utilities

By Milton Smith, General Counsel

*Printing Company and Hotel Company prevented from using Advertising Covers on Telephone Directories.*

In National Telephone Directory Company v. Dawson Mfg. Company, et al., the supreme court of Missouri issued an injunction restraining the defendants, the Printing Company and the Hotel Company, from using advertising covers on telephone directories printed and furnished by Directory Company for the telephone company. The petition alleged that the directories went to the subscribers of the telephone company for their use, but remained the property of the telephone company; that several hundred copies were in use by the Hotel Company; that the plaintiff had the publication of the directory and owned the exclusive right to sell advertising space in and on the directory; that the Hotel Company and Printing Company had entered into an arrangement whereby the Printing Company was to furnish false covers for the directories in use by the Hotel; that the Printing Company was soliciting contracts for adver-

tising space on such covers; that if such covers were used they would destroy the advertising value of the space controlled by the plaintiff, and that such acts constituted an unfair and unlawful competition with plaintiff's business.

The court said:

"A more flagrant case of unfair competition is nowhere disclosed by the books. In fact the scheme is more than unfair competition, it amounts to an actual appropriation of plaintiff's property by the defendants to their own business purposes. A court of equity ought not to hesitate long to interpose its protection against a scheme of this character."

*Delaware Statute Held to Impose a License or Privilege Tax, and City Authorized to Use Telegraph Lines at Certain Sum Without Regard to Actual Value.*

In New York, Philadelphia & Norfolk Telegraph Co. v. Dolan, the supreme court of the United States was called on to interpret a Delaware statute which authorized an assessment of telegraph lines in a city of not

less than \$6,600 and not more than \$7,300 for each mile of the streets used. Suit was brought by a collector of taxes against the Telegraph Company to recover back taxes and the company argued that this was a property tax upon the company's poles and lines; that it fixed an arbitrary valuation upon them without giving the company a chance to be heard at any time before the tax was levied, and that the company was denied the equal protection of the laws when it and a few others were singled out and other Delaware property was valued on the actual facts. The United States Supreme Court followed the court of the State of Delaware in holding that this was not a direct property tax but was rather a license tax or privilege tax which the state might impose as a condition of the grant of a franchise, or which the city was authorized to impose for the privilege of occupying the streets. The court further said that the Telegraph Company might be required to pay for their occupancy of the streets with their poles and there was no need to decide how far the state might go in discouraging some particular activity, if so minded, by license or privilege taxes, as well as penalties.

*Power Company Held not to Have the Right to Make "Service Charge" Above Contract Rates.*

In Town of Gallup v. Gallup Electric Light & Power Co., the supreme court of New Mexico found that the city of Gallup and the Power Company had entered into a contract fixing maximum rates, and that some time thereafter the company began to charge and demand from its power customers a service charge. The city sued in the state court for an injunction. The company answered that such charges were not made for electricity consumed, but were to compensate it for the maintenance of a plant and equipment adequate to maintain constant service. The court held that when the maximum rate was fixed by contract, no device or subterfuge could be resorted to to increase the charge over the contract rate, and allowed the injunction. However, it is to be remarked that the court specifically stated that, while the company had no right to break its contract with the city, and thus impose the service charge, yet the state, through its regulatory power, operating through its corporation commission, could at any time abrogate the contract between the city and the company and authorize the company to make the service charge.

or a toolmaker uses poor steel, or a powerhouse man neglects the care of a great turbine generator, the trouble is not on him alone, but it reaches to men at machines and assemblers whom he has perhaps never seen. It hurts their work. It delays filling an order. It makes trouble for storekeepers. It holds up installing telephone equipment perhaps and people wait for telephone service. Like a stone dropped into a pond, the little ripples extend in every direction.

"Ways to prevent or correct most of these bad effects are a part of the shop system. But there is no safeguard so sure as doing every little thing right each time. This, then, is the responsibility which is yours and mine. It is a personal responsibility to each other. It is a personal responsibility to the work itself. That work calls to us with a cry that can no more be denied than the call of a child in trouble. No one of us alone could do much. Together we can meet our responsibility to the work that needs us all. So, too, as we accomplish the task, as we get the output at which we aim, the right to a satisfaction in the result belongs to all of us jointly and to every one of us individually.

"The production record of Hawthorne last year and so far this year is more than good; it is superb. We want our friends and customers to know the facts about it. At many

meetings of telephone officials throughout the country during the past few months I have had opportunities to tell the Hawthorne story. It is worth telling, and I am proud to tell it.

"A number of telephone executives have recently paid visits to Hawthorne. Many more are coming. We want them all to know about this great workshop of the Bell Telephone System and to have confidence in it. We deserve their confidence. They depend on us to meet their needs, greater now than ever before. I answer for Hawthorne that they will not be disappointed in us. We are determined to do our part for the future even more fully than we have in the past.

"We have a right to be proud of our record, but we must beware of pride. Nothing is so dangerous as thinking a past record means a future performance. Always ahead of us are new problems. Every new day calls for new energy, greater steadfastness, more skill.

"We are here today to dedicate this marvelous apparatus made by Hawthorne for the use of Hawthorne. It typifies Hawthorne—fearless in its attempt, skillful in its construction, accurate in its result. And so I dedicate it to the doing of the job, to the tradition of fairness, to the spirit of friendliness. These are the things for which our company and our Hawthorne shall stand to the end."

# Grinding Out Telephone Cable

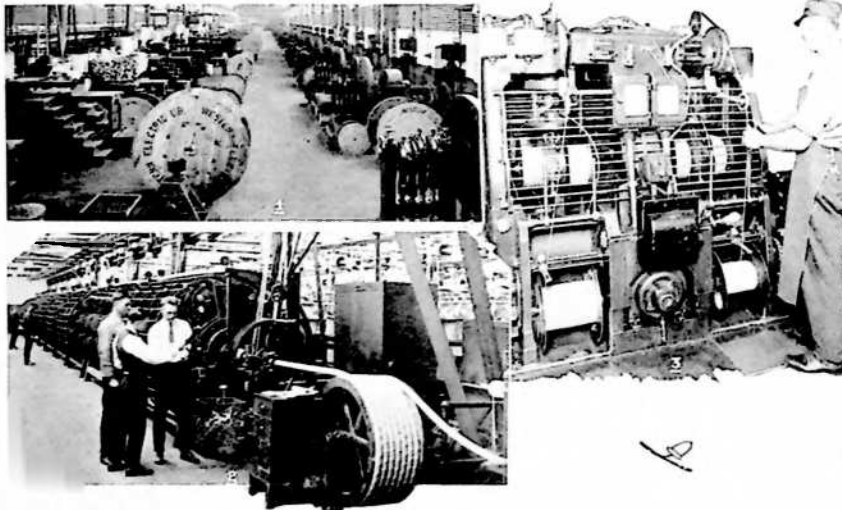
AS YOU WATCH a length of cable disappear into a manhole, or like the silver-scaled snake of legend, wing its way down an aerial lead, your curiosity asks, "Where does it come from?" On the reel, in addition to cabalistic markings which tell the size and number of pairs, are the words, "Western Electric Company." And here is their story of lead-covered cable:

The materials of which cable is manufactured are copper wire, paper, antimony and tin. These come to the Hawthorne Works by the carload, the wire in coils, the paper in pads slit to the proper width, and the antimony and lead in bars known as "pigs." The wire has been drawn to the proper diameter, and thoroughly annealed so as to be soft and flexible. The paper varies in thickness from two and one-half one-thousandths to fourteen one-thousandths of an inch. It is manufactured for

the length so that it cannot touch any other wire in the cable. If two of the wires touch each other at a single point, a telephone circuit is ruined. Various colored papers are used in order to identify the two wires of each pair, and also certain groups of pairs in the finished cable.

The insulated wires are then twisted into pairs. The twisting machine consists essentially of a rotating yoke carrying two reels of the insulated wire and a capstan. As the yoke rotates, the two wires are twisted together and are drawn through the machine by the capstan. The twisted pair is at the same time wound on a take-up reel. The machine is so constructed that the length of a complete twist, that is the number of twists to a foot, can be altered at will. The reason for twisting the insulated wire into pairs is two-fold. First, it keeps together the two wires which are required

drums, rotating in opposite directions, apply the remaining pairs in reverse layers over this center. In the same operation the assembled pairs are covered with a double wrapping of heavy paper as an additional insulation between the wires and the lead sheath, which is later applied as an outside protection. The finished



No. 1—Hawthorne's cable presses. More of these big machines are here assembled than anywhere else in the world.

No. 3—Here two paper-insulated wires are twisted to form a pair.

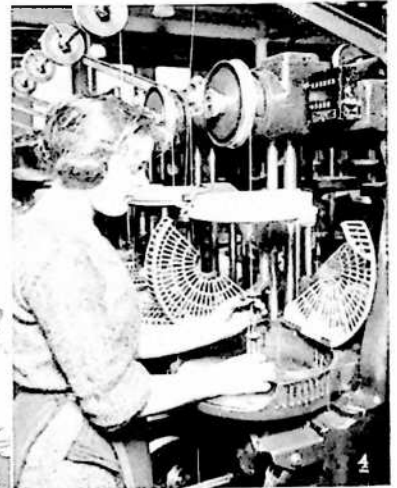
No. 4—In this machine, paper tape is wound around the wire as the latter passes up through the center of the roll of tape.

the particular purpose, and the composition is such as to insure a strong and durable product. The sheath metals, which are commercial lead and antimony of special degree of purity, come direct from the refiner.

The first step in the making of cable is the insulating of the copper wires with paper. This is done by insulating machines, which wrap the paper tape around the wire in the form of a continuous helix, overlapping at the edges. These machines put on about 2,400 "wraps" or turns in a minute. Each wire must be completely covered with paper throughout its en-

tire length so that it cannot touch any other wire in the cable. If two of the wires touch each other at a single point, a telephone circuit is ruined. Various colored papers are used in order to identify the two wires of each pair, and also certain groups of pairs in the finished cable.

After the wires are paired, they are formed into a cable by the stranding machine. This machine consists of a number of revolving drums, which look like enormous skeleton spools. On the outer part of these drums are arranged the reels containing the pairs of wire. The center pair or pairs of wires are drawn into the machine straight. The successive



No. 2—Reels of twisted pair wire carried on frameworks revolve around the central core of the cable, which is drawn off as you see in the foreground. There are 18 such machines at Hawthorne and every month last year through them passed 2,000,000,000 feet of wire, or 4,800,000 miles during the year.

"core" as the unsheathed cable is called, is wound upon large take-up drums. This stranding together of the pairs is necessary to provide flexibility, for if the pairs were all run straight through, the cable could not be bent without stretching some of the wires or kinking others.

In order to furnish the customer with the cable length desired, one of the center pairs is carefully measured and the location of the end of the pair marked on the outside of the core as it passes successive drums. The core is then cut at this point. It is important to the customer that the length be absolutely correct, and a check measurement is usually obtained by means of a recording device on the front of the stranding machine and by weighing the completed core. Cables vary in length from a few feet up to 600 or 700 feet for underground cables and up to 2,500 feet for small sizes of serial cables.

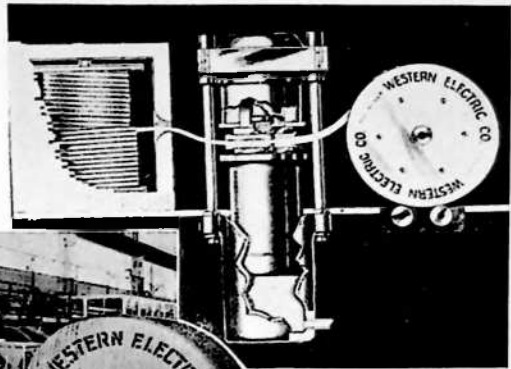
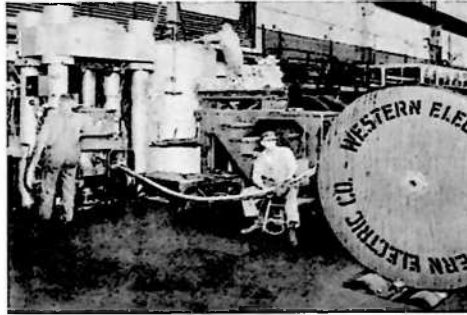
The first three operations in the making of cable have now been explained; the insulating, the pairing of the wires and the stranding of the pairs into cores of varying lengths.

After leaving the stranding machine, the length of cable core is carefully tested to see that there are no broken wires and that the paper insulation is in satisfactory condition.

The core is then dried in vacuum ovens heated to about 250 degrees Fahrenheit until the moisture in the paper insulation has been driven out. The presence of an appreciable amount of moisture in the paper insulation renders the cable useless.

When the core has been thoroughly dried, it is put through the last manufacturing process, that of applying the sheath. The sheath is composed of an alloy of lead with approximately 1% antimony, and is applied by a lead press or sheathing machine, which is essentially a machine for making lead pipe. A hydraulic press working at enormous pressure forces the sheath metal between the tapered end of a hollow core tube and a die ring, thus forming the pipe. The sheath metal temperature is about 450 degrees Fahrenheit, at which it is in a plastic state, but it is not hot enough to damage the paper on the core in the short time to which the paper may be exposed to that temperature. The end of the cable core to be covered is passed through the

*Thirteen of these big lead presses turn out ten thousand miles of wire each year. Hawthorne consumes 145 million pounds of lead a year. How the lead sheath is applied around the paper-covered core.*



*W*

ruinous to the cable by allowing the entrance of moisture. The completed cable as it comes from the lead press is wound upon the familiar wooden reels.

After the cable has cooled, it is given a final and very thorough electrical test. It is very essential that every cable contain at least as many perfect pairs of wires as are called for in the order and for this reason a few extra pairs are usually included in the core to make up for defective pairs which occasionally develop during the manufacturing operations.

If the cable tests satisfactory, the sheath is sealed up at the ends to prevent possible entrance of moisture, the reel is lagged and the finished product is ready for shipment.

A great mind is a great fortune.

**Witcher, My Brother?**

"Do you run a motor car or a movable mad-house? If you like to tear along so fast that you can't open your mouth without having your teeth bent inward, why don't you go over to the electric light plant and ride on the flywheel?"—George Ade.

**Garrett's Explanation**

Explanation made by G. W. Garrett, agent at Council, Idaho, on Form 60, as reason for ordering first aid material:

"On last trip on toll trouble on Weiser lines, a ground hog tried to cross in front of the speeder. He almost made it. Result: one dead ground hog and a bunged-up telephone man. Speeder went about 150 feet after it left the track. Reason for refills for first aid kit."

**WHAT A YEAR'S SUPPLY OF TELEPHONE CABLE MEANS**

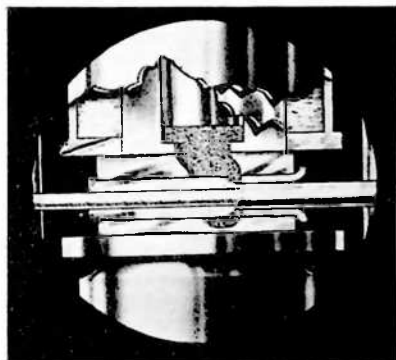
**Raw Materials:**

Lead .....	145,000,000 lbs.
Antimony .....	1,450,000 lbs.
Copper .....	55,000,000 lbs.
Paper .....	10,000,000 lbs.

**Finished Product:**

53,572,624 feet of cable, enclosing 24,000,000,000 feet of wire.

hollow core tube and into the pipe. The pipe fits the core snugly, and draws it through the lead press as additional pipe or sheath is extruded. The core is thus protected by a continuous tube of sheath metal which must be free from cracks or other imperfections, as the smallest hole through the sheath would be



*Close-up of the forming die. As the lead-sheathed cable moves out to the right it draws the wire core with it.*

**HIGHEST UP TELEPHONE IN AMERICA**

On the summit of Pike's Peak in Colorado, at an elevation of 14,110 feet, is located the highest telephone in the United States. It is the property of the Pike's Peak Highway Association.

The telephone line up Pike's Peak is constructed to withstand the severe wind and snow storms to which it is subjected for several months of the year, and so well has it withstood the elements that not once since its construction, in the summer of 1916, has it been put out of commission by sleet or wind storms.

The next highest telephone in the United States is in the state of Wyoming. It is located on the top of Medicine Bow Peak, at an elevation of 12,015 feet. This is a United States forest service telephone placed in the second story of a lookout cabin in a glassed-in

observatory, which gives the observer a view of the entire forest. The cabin is located on top of a cliff 170 feet high and ascent is made by ladder. The last span of line is three-quarters of a mile in length and consists of special long-span wire.

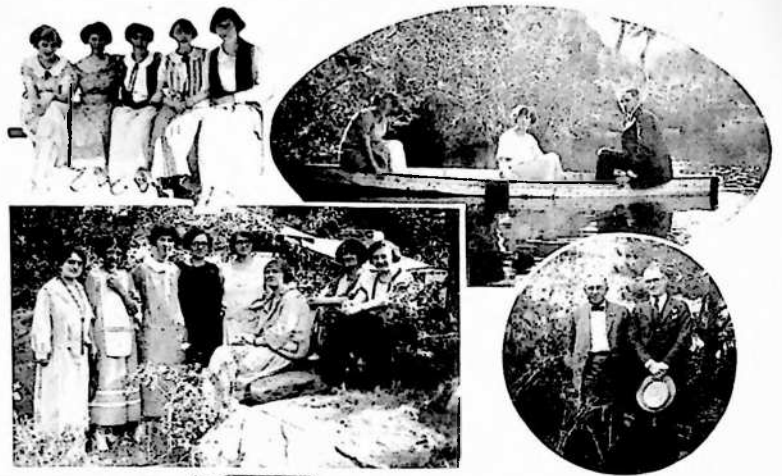
There is also in Wyoming a government-owned telephone located on Mount Washburn, in Yellowstone Park, at an elevation of 10,400 feet. It is situated in a small rest station at the summit, which is used as a forest fire lookout station as well as for the convenience of tourists.

The highest telephone on the Pacific Coast is located on Mount Hood, at an elevation of 11,225 feet. This set is located at the summit and is used by government forest rangers. —Rock Springs (Wyo.) *Racket*.

# Denver Demonstration

By Betty Devine

The final trail of the Denver Demonstration troupe led to Troutdale In The Pines, Saturday, June 21, where, as a fitting climax to a season marked by tremendous success, an outdoor frolic and dinner dance was staged. The day was perfect: not a cloud flecked the deep blue sky and the bracing air and odor of pine trees as the machines carrying members of the party wended their way through the jagged canon roads filled everyone with the joy of living and the particular brand of enthusiasm which put this show across for three



Scenes around Troutdale-in-the-Pines during the time of the Denver Demonstration Annual picnic.



straight seasons, with the public still asking for more.

Arriving at the hotel the rollicking happy crowd of sixty or more soon took possession of the place, scattering in groups to the card room, canoeing on the lake, hiking the mountain trails, splashing in "th' ol' swimmin' hole," or the horseshoe grounds (where Mr. Ben S. Read was conspicuous by his absence), or to

the veranda where they watched the pretty scene.

Long before 6 o'clock appetites were whetted up to a keen anticipation of food and when the sound of the dinner gong burst upon their ears none was slow to make for the spacious sun porch where one long table stretched nearly its entire length. A variety of mountain wild flowers in rustic baskets were ar-

and as usual the boys (in stage vernacular) got away great.

A beauty contest, for men only, candidates nominated and voted for by the ladies proved an interesting diversion and provoked much merriment in that each lady was requested to state just why she voted for a certain candidate.

The spontaneity and cleverness with which the young women responded showed keen intelligence and wit.

Joe Cornell, Bill Lamping, Waldo Cockrell, R. E. Clifford and Willard Kinney, "Jum" Flint and Dean Clark were nominated. The contest resulting in Mr. Clifford claiming first place, Dean Clark second and "Jum" Flint gaining the sobriquet "Paprika."

A number of similar surprises and stunts were introduced throughout the dinner which was also interspersed with noise-making devices of every sort while carnival caps added a festive touch to the scene.

At the close of the dinner Dean Clark called upon Traffic Supervisor A. D. Spaulding, who has had charge of the Demonstration show the past year and is held in high favor.

Mr. Spaulding read a number of original verses which he had written around each one present, and which got a good laugh.

Mr. Clark then expressed regret that neither our outgoing nor incoming president could be with us and read letters from both Mr. Ben S. Read and Mr. F. H. Reid, personally expressing such regret. This was followed by a toast in the form of a song to the tune of "Auld Lang Syne" sung by Miss Gertrude Wyman and Miss Gertrude Livingston, to the retiring and the new president, after which a toast was drunk to each.

J. E. Macdonald, vice-president, secretary and treasurer, was asked for a few impromptu remarks which were given in his always sincere and enthusiastic manner and found a



ranged at intervals through the center of the table where each guest's place was marked by a souvenir menu with his name subscribed thereon.

Rather an impromptu note characterized the entire program from the moment the first course was served and a call came from the far end of the table for Will Morgan to sing. "Will" responded with accustomed graciousness and pleasure to all, Miss Jessie Blakemore accompanying him.

"The Blue Bell Trio" was then called for

# STOCK SALE LEADERS FOR JUNE

Well, what d'y know!

Again a woman leads in stock sales.

In May it was Miss Lillie Mitchell of Phoenix, Arizona. In June the winner who takes first place in the Mountain States Company is Miss Myrtle M. Barker, cashier at Sheridan, Wyoming. This also keeps Wyoming at the top of the list in sales.



H. H. Croll, Greeley

Then comes along our old and tried friend, H. H. Croll, manager at Greeley, Colorado, as a close second to Miss Barker, so THE MONITOR is just going to print both their pictures to show the readers what a fine looking pair we have to draw to.

Miss Barker is the very efficient cashier at Sheridan, and she stands high among her associates, and is probably one of the best known "business women" in northeastern Wyoming. That she takes first place as a saleslady in disposing of American Telephone and Telegraph Company stock is evidence enough that she is interested in her work.

Mr. Croll, manager at Greeley, has been with the company since 1900—nearly twenty-five years—and if there ever was a time when he was not right on the job in the interest of his company, no one has ever noticed it. Croll is one of those affable, genial, accommodating men who inspires confidence and respect. He believes in the Bell System himself. Therefore he can and does talk Bell System. One day the editor of THE MONITOR stepped off the train at Greeley, and wishing to send a message to Mr. Croll, he called a kiddie who stood on the platform:

"Here, kiddie, do you know Mr. Croll?" asked the editor.

"Know him?" replied the kiddie. "Say, Mister, everybody in de world knows dat guy 'round here. He owns de telefoam. Sure, I'll take de letter to him—he's me friend."



Miss Myrtle B. Baker, Sheridan

Well, that tells the story.

The following table shows the result of the stock sales campaign per 1,000 owned stations in our company for the period from January 1 to July 1. These percentages are based on the number of applications. There has been no change in the relative position of the states: Wyoming is still in first place.

Wyoming .....	6.52
Arizona .....	5.78
Utah .....	5.43
New Mexico-Texas.....	4.93
Colorado .....	4.54
Montana .....	4.36
Idaho .....	3.72
Company .....	4.81



### Another "Scoop!"

Voice (excitedly): "Hello, Monitor—Hello! Hello—h—o!"

Monitor: "Yes, yes—wait a minute! Calm yourself! What's it all about?"

Voice: "About! about! Say, it's a—a—nurse, come here! O, yes—it's a girl—G-U-R-L!—girl. Yes, July 7—three days late for the Fourth—great scoop!"

Bang went the telephone receiver. Then our birth editor got busy and discovered Charley A. Crapo, engineer of equipment and buildings, was the man behind the excited voice, and was also the proud daddy of the new arrival.



### Miss Augusta Lewis Weds

Miss Augusta Lewis, for a number of years suburban clerk in the Denver commercial department, was married to Mr. Earl Clay, of Edgewater, on June 25. May the joys and blessings of life ever attend you, Augusta.

Miss Eileen Cannon has taken the place vacated by Mrs. Clay.

warm place in the hearts of everyone.

F. P. Ogden, general traffic manager, was then called upon informally responding with brief though pertinent remarks flavored with characteristic humor.

Martin H. Caldwell, state auditor of receipts, who had been selected as speaker of the evening and whose splendid address was reproduced in full in the July MONITOR, was then introduced.

After Mr. Caldwell's talk, Mr. Clark congratulated and thanked the troupe on behalf of the state committee, composed of P. A. Holland, state manager, chairman; Waldo F. Cockrell, Colorado traffic superintendent; A. W. Young, Colorado plant manager; G. E. Berggren, state auditor of disbursements, and M. R. Caldwell, and presented each member with a handsome souvenir of the occasion. The party then adjourned to the main dining room where to music by a special orchestra transported from Denver for the event, dancing whiled away the remaining hours until midnight when the man in the moon smiled a silent benediction on the happy revellers as they motored back down the canon to the girgling accompaniment of the mountain stream or returned via Lookout Mountain.



# General Addressograph Department

By Betty Devine

Running off names and addresses on 122,000 bills, an average of 800 work orders, 1,450 single wraps of MONITORS for mailing and an average of 2,200 pay checks is just a little of the work handled by the addressograph department each month in Denver.

In addition to the aforementioned, by way of keeping out of mischief in their spare time, they print the addresses on all A. T. & T. stock subscriptions for the entire Mountain States territory (from the auditor of receipts office), and also all stock subscriptions for employees in the state of Colorado, all Colorado payrolls, all bulletins and circulars for the field, all dividend sheets and accompanying checks for the secretary and treasurer's office.

This, of course, necessitates keeping right up to date with all names and addresses affected by such work, so that each time there is a move, an addition or a change of any sort affecting directly the addressograph listings, such changes must be made—not such a small job in itself.

These slugs or metal plates bearing names and addresses are among the company's valued possessions and are filed carefully away in this department, seven filing cases of 126 drawers to the cabinet and 100 names or plates to the drawer being required for this.

Archive records for Martin Caldwell, Colorado auditor of receipts office, also are filed and kept in this department for a period of four months, after which they are sent over to the regular archives on Osage street.

Seven "keen, courteous, kapable klerks," or, to be exact, six clerks under the direct super-

vision of Earl Richards, head of the addressograph department, conduct the business of the department, and are a talented, versatile group, for, according to Mr. Richards, any clerk picked even at random can step right into another's place should the occasion require it. If you've

the bills each month—takes ten consecutive days continuous operation of the machine with the entire time of one clerk devoted to it eight hours of each day.

Miss Marguerite Fischer, regular graphotype operator, was running the automatic the



Left to Right—Selma Larson, Margareta Fischer, Herbert Staterberg, Earl Richards, Elizabeth McCarthy, Genevieve Blake, Helen Whillans.

ever strolled into this office with its machines of various sorts you have some idea of the amount of "talent" it takes to be able to play—my error; I should say operate—any one or all of them.

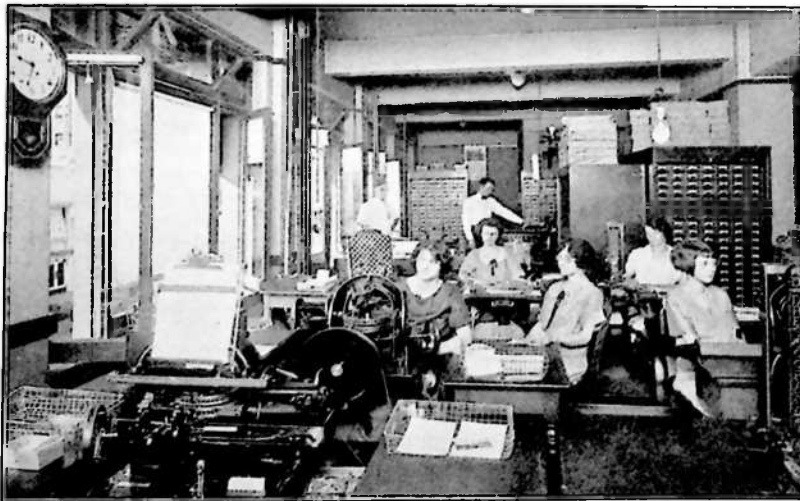
All bills are run off on the automatic machine, and incidentally it's interesting to know that this process alone—the running off of

morning I dropped in the office, and when the machine stalled a couple of times and she called Mr. Richards to fix it, I suggested that it might be out of gas, but a withering look from each of them convinced me that I was far from the mark, as usual.

Whenever the machinery of the office clogs, whether the trouble be manual or purely mechanical, it is said that Mr. Richards is always successful in pouring oil and skillfully getting it back to efficient functioning.

The bills seemed to have been rather poorly printed and trimmed, which interfered considerably with the successful and speedy manipulation of the machine, and I marveled somewhat at the silence Miss Fischer so strictly maintained despite these annoyances, but in commenting on the fact to Mr. Richards he insisted that being a closer observer he felt certain he could detect a blue haze in the atmosphere immediately surrounding the machine and its operator. You understand, of course, I am merely quoting Mr. Richards.

One of the busiest machines in the office is known as the duplicating machine, on which Colorado reports 1352, administrative reports, miscellaneous letters and forms are duplicated. This machine is run by hand power and usually operated by Mr. Richards or Mr. Herbert



View inside the Addressograph Department, Denver

# These are Weavers of Speech

Cora A. Maxwell, comely and versatile wife of the editor of the Englewood, Colo., *Herald*, "dropped in" at the Englewood telephone exchange the other day and looked the girls over. Then she went back to her office and wrote the following for *The Herald*:

"Back and forth—to and fro—plugging in, plugging out—connecting the home with the butcher, the baker, the candle stick maker, with "Number please,"—or maybe it is a call for the doctor. Be it a call for the fire department or the police, no number is needed; the operator connects you directly. Hers not to reason why—hers is neither a business nor a profession, just a "calling." Perhaps it is some cherished anniversary in the old home, where the parents grown tottery with age still reside. There is a loved one in some far distant clime, who though absent in body is with them in spirit. There is the tinkle of the telephone and across the wires comes a greeting in the well known voice.

"The telephone may have been a novelty or a luxury when the pioneer company organized by the inventor, Dr. Alexander Graham Bell, erected its first crude system; but today with its millions of instruments and its vast networks of lines penetrating all the civilized world, the telephone is a necessity. As a saver of time and an annihilator of distance, it is the most valuable adjunct of modern business. There are more telephones in the United States than in all the rest of the world. It is estimated that there were nearly *twenty-five billion* calls made in America in 1922. The parent company has more than 300,000 stockholders.

"The telephone has been and is a great teacher. We are learning to be concise, to put a large amount of truth in few words and to talk to the point and quit when we reach it. Sometimes on a party line in the country, when you take down the receiver, from the conversation you overhear you might well think you were on a 'clothes' line instead of a telephone line. And there are times in the

city when you think the only line you can find that isn't busy at the other end, is a fish line.

"We have learned that if we greet the telephone's call with a laugh in our voice, an agreeable voice comes back to us. No difference how busy we may be, it takes no more time to be civil than to be unpleasant and it is considered just as bad form in both the social and business worlds, now-a-days, to be rude over the telephone as it is to be discourteous when we meet face to face. If the machinery of our lives always functions as we would wish and never goes astray, then and then only are we in a position to look for every little fault in the operating machinery of others.

"Englewood's 'speech weavers' are located at 37 East Hampden and they are fourteen in number. C. E. Abbott is the manager, both inside and out. Gordon Lane, of Georgia, has recently taken the place of David Hobson as wire chief. Mr. Hobson has gone into business with his father. Mrs. Eva Simpson is chief operator and she has ten girls working regularly and two in training for vacancies or emergencies. There are now six applications on file. The girls must be between the ages of seventeen and twenty-five. Englewood girls are always given the preference and all of the operators excepting one are home girls. At present they are the Misses Ella Wheeler, Hulda Anderson, Florine Robins, Nettie Clapp, Alma Byland, Dorothy Rundle, Helen Coffield, Anna Anderson (evening chief operator), Mrs. Viola Williams (clerk) and Mrs. Estella Rogers (night operator from 9 to 7). Miss Dorothy Rundle has just taken the place of Miss Irene Seiler, who resigned to be married. During the busy hours there are five working on the board.

"Sometimes we may think that the operator gives us a 'busy' report or a 'don't answer' report because she doesn't want to be bothered. This is not the case. The easiest way

she can rid herself of a call is to connect the party as soon as possible with the desired number. This is desirable both from the standpoint of labor for herself and revenue for the company. The interests of the subscriber, company and operator are mutual.

"The local office now has twelve hundred subscribers, there being a growth of from one hundred to one hundred and fifty each year. Visitors are not only welcome, but they are cordially invited, the best hours being from 8 until 5 during the day."



## His Wife's Presence of Mind

Learning upon entering the house that his wife was entertaining a tedious visitor, he took refuge, and later, not hearing any voices, rashly called out:

"Has that horrible old bore gone?"

The visitor was still in the drawing room, but his wife, proving equal to the dreadful situation, called back: "Yes, dear, she went long ago. Mrs. Brown is here now."



## Taking no Chances

The day before she was to be married the old negro servant came to her mistress and entrusted her savings to her keeping.

"Why should I keep it? I thought you were going to get married," said the mistress.

"So I is, missus, but do you s'pose I'd keep all dis money in de house wid dat strange nigger?"



## "In the Doorway"



Picture in the doorway of the Twin Falls, Idaho, office of Mr. Roderick Reid and C. H. Lytle, state auditor, taken on their recent visit to Twin Falls.

Saterberg, who is right-hand man to Mr. Richards.

Both Mr. Richards and Mr. Saterberg started with the company as office or messenger boys, Mr. Richards having a service record of fourteen years, beginning with his career as messenger in the office of the treasurer and extending into the plant department and eventually the accounting, under which branch his present work now comes.

In addition to being an expert machine operator Mr. Saterberg is a promoter of considerable note, for it is said that just as sure as he concentrates his attentions on a member of the fair sex some other chap comes along and steals her.

Others whose conscientious efforts are a factor in keeping the addressograph department in excellent standing are Miss Selma Larson, graphotype operator, with a twelve-year service record; Miss Elizabeth McCarthy, addressograph operator, who, despite traditional history of the fighting propensities of her ancestors, seldom loses her temper and can always be depended upon to drag enough humor into any situation to save the day; Miss Genevieve Blake, graphotype operator; and Mrs. Ellen Whillans, who is skilled in operating the addressograph. Altogether it's a small, though happy, harmonious and successful branch of our Telephone Family.

# AB Club Picnic



The American Bell Club, of Denver, held its mid-summer picnic beneath a gentle June sun and a silvery moon out in the Valley of Dreams, just to the leeward of Lookout Mountain, this year, and about 300 were there to revel in the glories of the occasion.

W. T. Lee, chairman of the entertainment committee, had the commissary department well equipped with everything that goes with a fine beefsteak fry. Just for fear the high altitude might stimulate the appetite of the romping, rollicking, jolly bunch, several hundred links of weiners were held in reserve. And 'twas well this provision was made. Everybody had a sizzling-hot beefsteak right from the steel slab, then the "hot dogs" were spread upon the hot plate and roasted to a turn. Oh, yes, there was hot coffee, cold ice cream, pickles 'n everything.

The day was Saturday. The crowd began arriving at 2 p. m. Gene Hohlen, vice-president of the club, acted as chief loader at the Civic Center, where cars were driven to take those who had no way of going. President Frederick Reid was seen to drive up to the "loading place," and when he said to Hohlen, "Load in eight or ten in this car," it relieved the congestion. So, when Mr. Reid arrived at the grounds with the Pierce Arrow loaded to the running boards, everyone shouted a welcome to our new president.

Finally H. F. Hansen, who had in charge the implements of joy, drove in with a flat tire or a twisted axle or something and began dumping out baseball bats, balls, horseshoes, prize packages, etc. Then the real fun was on. From that time until the gong for hot steak sounded there was a genial flow of soul and an unrestrained outpouring of genuine picnic hilarity—8,000 feet above the sea.

Will Lamping, always popular and handy at a picnic, had the fat men climbing trees, the lean ones jumping through hoops, the ladies playing baseball and driving nails, the kiddies standing on their heads, and all such sport that goes on field day. Prizes of no particular

value were given for most everything that was done, and in that way everyone had a chance to say, "I won."

Fred E. Rominger had the big job of all—that of seeing to it that the equipment got there on time. He started early, and with his fine young men to aid him with a big truck from the plant department he made good.

All in all it was just one of those big, happy picnic gatherings that go to make up the joys and pleasures of the Bell System, and the American Bell Club was glad to be able to sponsor it.

By way of passing it might be mentioned on the quiet that the president of the club has been assured that the next big outing will be held about the middle of September, and—listen to this—and that the Rocky Ford Watermelon Association is going to ship up a part of a carload of those luscious watermelons—*free*—for the occasion! Are you coming?

THE MONITOR would like to personally men-

tion everyone who aided in making the beefsteak fry the success it was, but that would mean a lot of space.



## At Idaho Falls, Idaho

Much to our sorrow, Mr. Cupid has been hanging around again. Miss Mazell Jones was married to N. H. Kenny recently. Miss Jones has been with the company since September, 1922, and was a member of the employees' representative committee. Although we are sorry to lose her, we wish her much success and happiness.

Miss Margaret Howell has been appointed as our new representative for the employees' representative committee.

We are very glad to have Miss Lila Ahlstrom with us again. She has been absent for three months on account of a nervous breakdown.

ETHEL ARMSTRONG.





# Speaking of Telephone Accessories

Sometimes, as I sit to-day among my telephone, I cannot help longing for the plain odd-fashioned desk telephone into which we just talked with the nude voice. The old-fashioned telephone may not have been perfect and it may not have been pure, but it at least did not give us the feeling, when we called anybody up, that we were in a clinic.

My telephone is just the average business man's desk telephone. As you will see by looking at the accompanying picture, I have not

put ALL the accessories on it that have been offered to me. In fact, I think I have done a fairly good job of resisting the telephone accessory salesman, for there are still several inches of the barrel of my 'phone on which there are no clamps. I took a great deal of pride in what one wily canvasser said to me this morning.

"Why, sir," he said wily-ly, "your telephone really hasn't any of the modern improvements on it. I see several good places on which I

could clamp the Pollyanna Voice Sweetener—the only device which makes your voice sound pleasant regardless of your real feelings. In most cases I have to remove some other less useless attachment in order to make room for our Voice Sweetener. Why, your telephone is bare compared to most. I don't see how you get along with such simple equipment."

"If you ask me," I retorted, "I think my telephone looks like a Christmas tree already, and I don't want your Voice Sweetener or anything else on it. Besides, I don't always, if ever, want my voice to sound sweet on the telephone."

"Well, you can of course use this throw-off when you want to talk naturally," said the canvasser.

"I fell like a graduate trap drummer every time I talk on that 'phone, as it is. It's so loaded down now with conveniences that I have to stand up and put my whole weight on it to move it. Get out."

In a few minutes he had sold me the Pollyanna, and that is why, perhaps, I am a bit moody on this subject at this moment. While I have been more economical than most business men in regard to dolling up my telephone, I have just estimated that I have \$683 worth of contraptions on it.

I have, among other things, the very latest mufflers, disguisers, amplifiers, rectifiers, strainers, recorders, sterilizers, smoking sets, hot and cold running water, mirrors, meters, and even a parking light so I can find it in the dark. But today, in this blue mood I am in, I can't help feeling that a Ford is a Ford and that a telephone is a telephone, and that it is better that it should be.

At this moment I am of a mind to send my desk 'phone to some dry dock and have it scrapped.

D. H. in Life.



College professor says long legs indicate superior intelligence. At least, they should indicate loftier thought. Al Young should be "up" on this.

## "Just a Minute Please"

(From The Valve World, Chicago)

How often have you been interrupted in an important discussion or the dictating of a letter by the ring of your telephone, only to find on answering it the voice of the operator asking—"Mr. Jones?" Your affirmative reply is followed by—"Just a minute, please."

At the other end of the line Mr. Smith also is engaged in an important discussion or in the dictating of a letter, previous to which he has asked someone to "get Mr. Jones on the phone."

But when Smith's bell rings he often finishes his letter, or the argument he has started, before answering the phone, thus taking the time of Jones, who is waiting at his end of the line for "just a minute, please."

This procedure happens many times a day to nearly every busy man, and it seems fair to ask "Why?" Does Smith consider his time more valuable than Jones's? And if so, how can he judge? Or doesn't Smith know that one of the first attributes of a gentleman is to deal fairly and courteously with his fellows? Sometimes it is merely thoughtlessness or selfishness on Smith's part, but no doubt he also has similar experiences, and the annoyance thus caused should tend to remind him "not to do unto others as he would not have them do unto him."

Most incoming telephone calls, in business

at least, are made in seeking some sort of favor—a bit of information, perhaps, or even the sale of a product—and the wise man will not antagonize the one from whom he hopes to get something.

If a personal talk over the telephone is necessary, or desirable, it should be made by the person seeking the interview, or through a substitute, but never should the "party of the second part" be expected to await the caller's convenience; on the contrary, if at all.

Surely Smith dictates the letters he signs. Why not then make his own telephone calls, or at least instruct his substitute to give him the phone as soon as Jones's number is called, so that the latter will not be kept waiting unnecessarily?

Smith's excuse of being "too busy" is hardly justified when one realizes that the average telephone call requires only a small fraction of a minute to complete.

It is often found that the "Smiths" who follow the "just a minute" practice are not as important in the business world as the "Joneses" who are willing to admit that a call worth making is worth the small time required.

The "just a minute" nuisance should be stopped, and the only way to stop it is to—stop it.



American Bell Club members, families and friends on the Big Picnic and Beefsteak Fry.

# THE MONITOR

DENVER, COLORADO

Published monthly in the interest of the employees of The Mountain States Telephone and Telegraph Company, at Denver, Colorado.

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Vol. XIX No. 8

AUGUST, 1924.

## Western Electric Business Increases

Business larger than in any period during the fifty-five years' experience of the Western Electric Company was during the first five months of 1924.

This was among the comments on current conditions made by Charles G. DuBois, president of the Western Electric Company, before his departure on the Lapland, June 21. He sailed on business relating to the manufacture of the first "permalloy loaded cable," which makes use of the new alloy "permalloy," perfected by Western Electric engineers in the Bell System laboratories. This development is expected to bring about radical improvement in cable communication.

Mr. DuBois said: "The sales of the Western Electric Company for the first five months of this year have been the largest on record. A total of \$122,280,000 compares with that of \$93,478,400 for the corresponding period of 1923.

"This large increase represents, of course, the consistent efforts we have been making to keep the manufacture of telephones and telephone apparatus in

pace with the continued growth of the Bell System and the demand for telephone service.

"The orders which we received during the five months just closed were also the largest on record, amounting to \$136,283,000. On May 31 the orders on hand amounted to \$108,954,000, a sum greater by \$20,673,000 than that for the same time a year ago.

"We are making this year what seems to us a colossal effort. We have planned to produce during every minute of the working year lead-covered telephone cable containing wire forty miles in length. We hope to keep up the pace of eight telephone desk sets every minute of the normal working year; and one section of multiple switchboard and six sections of small boards every hour.

"These efforts at increased production in order to assure continuous telephone development by suitable measures in the telephone factories, have resulted in the large total figures for our 1924 business so far.

"It is natural to believe that the demand which causes our exertions is a sign of fundamental soundness in general business in America. It gives us an optimistic sense of a continuous sound development, regardless of local and temporary fluctuations."

## He Charged \$10

A few days after the first of the month old Doctor Dependable mailed his statements of account and not long after that he received a call from an irate patron who waved a bill in his hand.

"Looky here!" growled the caller. "What do you mean by this? 'Two visits, \$10,' and you wasn't at my house more than fifteen minutes either time. Five dollars a visit! No wonder they say you're gettin' rich. 'Tain't wuth it, and I ain't a-goin' t' pay it!"

Never excitable, old Doctor Dependable just peered over his spectacles for a second, then said: "All right. I'll change it. And I'll just itemize it, so's you can see what it's for."

The visitor smiled. He was the kind of a fellow who knows that nobody can put anything over on him. Meanwhile the doctor wrote:

"To getting out of bed at 2 a. m.; answering phone; disturbing wife; dressing; going to garage; cranking 'Heine'; three-mile drive through snow; saving baby's life; drive back to garage; waking wife; undressing; getting back into bed—\$10."

As he handed over the new bill the old doctor explained, "I'll not make any charge for the second visit and you needn't pay me for the first unless you think I've earned it."

The irascible patron hastily paid the bill.

## Our Cover Picture

The cover page illustration of this issue of THE MONITOR is of Oraibi, one of the most populous of the Hopi Indian towns of northeastern Arizona. The Indians tell that, with the exception of a small and almost abandoned village of the same tribal group, it is the oldest of the Hopi pueblos. On this basis, it may be considered the oldest inhabited town within the borders of the United States, for the Hopi (Hopitu—"peaceful people") were living in Oraibi centuries before the Spaniards of the Coronado expedition came to them in 1540. Oraibi at one time had about 2,500 population, but has lost through the establishment of newer villages nearby.

The photograph is of the central plaza. The staircases and windows are modern innovations. In some of the homes are cook stoves, sewing machines and even phonographs, for the Indians have had much schooling in the white man's ways. They rarely have been hostile, and are a gentle, merry people. The negative is one taken by the Arizona state historian, Jas. H. McClintock, of Phoenix, on a visit two summers ago.

## "A Little Child Shall Lead Them"

Last night my little boy confessed to me His childish wrong, and kneeling at my knee. He prayed, with tears: "Dear God, make me a man Like daddy, wise and strong; I'm sure You can."

Then, while he slept, I knelt beside his bed, Confessed my sins, and prayed, with low bowed head:

"O God, make me a child, like my child here— Pure, guileless, trusting Thee with faith sincere."

# DOLLARS SHOULD HAVE MORE CENTS

**D**ID YOU ever stop to think what a busy-body the American Dollar really is? It wants work and lots of it. The more work it gets the more it wants and the better it is satisfied. The truth of the matter is, the dollar is so industrious and has such thrifty ideals it has no use for the idle or lazy man. Consequently it slips very easily from this type of individual's fingers into the pockets of the more shrewd and foresighted person, who immediately puts it to work at 6 or 7 per cent, or more, for each of the twenty-four hours every day of the year. This is exactly the kind of treatment it wants, and therefore it is very loyal to this particular individual, who demands work without any rest, and who is always on the lookout for more work for it to do.

You will find that the dollar will work very faithfully for you when it has been given a duty to perform. In a short time it will bring home another dollar just like itself to introduce to you, which in turn should be sent out to coax another great big American eagle home to roost. You will be surprised after a while at the results if you keep reinvesting the profits as they accumulate. But this is the selfish side, as the dollar has a much bigger and greater duty to perform in this world.

There is no life without nourishment. The dollar is the food with which the business world is fed and nourished. The dollar, intelligently invested, earns more money, finances enterprises which produce new wealth and keeps the wheels of industry turning. This in itself is the key to the employment problem, consequently more money is put into circulation. Everyone thrives and we all enjoy an era of prosperity and good times.

Saving the dollar is one thing—investing it is another. Hoarded wealth doesn't benefit anyone. Only those who save and invest wisely may reap bountifully. Many of us are good savers, but a comparatively few are good investors. This is because we do not know how to let the dollars work for us after we have worked for them. We aspire to be income-builders, but we never get beyond the stage of aspiring because we do not know how to start.

There are literally hundreds of ways in which to start our savings working for us. One of these, and the one most generally used by the small investor, is by investing in good, sound securities. Since, at the present time there are many get-rich-quick schemes, tempting on the surface, the stock of which is offered to the public for their savings, which afterwards proves worthless, it is no wonder the average person is skeptical about investing in any stocks. All stocks to some people appear alike, and any stock investment is looked upon as being a speculation. But such ideas are false and are far from true. If everyone knew how to analyze a security and how to deter-

mine whether or not it measures up to the standards of a good, sound investment, there would be little danger of anyone being hoodwinked out of his savings.

Before investing in any security it should be analyzed by asking these questions concerning it:

- (1) Is the investment safe?
- (2) Is the income from the investment satisfactory?
- (3) Is the security marketable?
- (4) What is its loan value when offered as collateral?

As to the safety of the investment, something more than the tangible assets is contemplated. This something is an intangible asset or liability known as the management. A wise, efficient management is an asset which cannot be measured in dollars and cents. The management is the eyes of the enterprise, which foresee the rocks of destruction hidden here and there in the sea of business activity. The management is also the brains of the enterprise, which guide the ship of organization around these obstructions and safely into the harbor of success.

An investment security should be considered not only from the point of view of its safety but also from that of its yield. The past and present as well as the current trend of earnings must be considered in order to obtain a true picture of the rate of yield. A sound security that constantly yields around 6 or 7 per cent is considered a very good investment as far as earnings are concerned.

The marketability and loan value of a security are closely associated, insofar as a safe, good yielding security has a ready sale. Banks will lend to a high percentage of par value on securities that are safe and good yielding.

There are many securities on the market that are good investments, but one of the premier investment common stocks of these United States is the common stock of the American Telephone and Telegraph Company. An analysis of this stock, by applying the four standards of measurements, reveals that it has all the requirements an investment should have.

(1) Is it safe?  
It is. The capital stock of the A. T. & T. Co. is approximately \$891,534,000. The total tangible assets of the company are over \$2,400,000,000. The current liabilities and funded debt are only 22 per cent of the total assets. Due to the management of the A. T. & T. Co., which is far-sighted, sound, conservative and yet progressive, the history of the Bell System has been one of persistent growth and development, uninterrupted by wars, panics or depressions. For forty-one years the system has shown a margin of safety over and above dividend requirements, and the surplus so earned each year has been put back into property. Its future possibilities are unlimited.

The A. T. & T. Co. is putting \$600,000 new money every day into new plant, which is engineered and planned years ahead in anticipation of the development of its system.

(2) Is the income from the investment satisfactory?

The yield is very attractive, being \$9.00 a share, which at the present is a return of about 7.3 per cent at the current levels—\$123 a share. In judging the investment character of the stock it is worthy of note that dividend disbursements have been made for more than forty-one years without an interruption.

(3) and (4) Is it marketable and has it a loan value?

It has become a habit with investors to take for granted the inherent value of American telephone securities, which accounts in part for the capital stock of the company being so widely held. There are over 300,000 holders of the stock; included in this number are about 50,000 employees of the Bell System. Since the stock is so widely held it has a ready sale through the medium of brokers and bankers and consequently demands a high percentage of par value when offered as collateral on a loan.

As a summarization it may be said that A. T. & T. Co. stock is a sound investment because of the high character of the management, because of the nation-wide service to public necessity, because of the intrinsic value of the plant and property, because of the record of paying dividends without fail, because the stock is always in demand, because the Bell System leads the telephone systems of the world in technical achievement and in rapidity of growth, and because the telephone itself has become a necessity.



## What Car Men Say

Here are some "Remembers" which employees of the Dallas Railroad Company recently included in a "Merchandising Transportation" folder they prepared:

Politeness will keep you out of more difficulties and bring you more smiles than anything else.

Courtesy oils the wheels of life—removes the squeaks, jars, and chatters that go with every position.

Courtesy pleases the customer. Think a moment and you will remember the time when you walked an extra block to deal with a salesman who had shown you courtesy the last time you were in the store.

Courtesy makes every job more pleasant—every task more worth while.

Courtesy is to some extent a test of civilization. Savages show little consideration and few people feel at home among them.

Avoid self-pity and you will escape most of your grief.

# Great Falls, Montana



By L. E. Jones, Secretary, Great Falls, Montana, Commercial Club

MANY READERS of THE MONITOR will be interested in knowing that the first Fourth of July celebration ever held west of the Mississippi River was near the present site of the city of Great Falls, Montana. It was on July 4, 1805, or on the twenty-ninth anniversary of our national independence, that the Lewis and Clark expedition celebrated this event. It was on this day they arrived at White Bear Island, taking portage from the mouth of Belt Creek. They encountered a strenuous task in moving their equipment and supplies, and to appease their fatigue and to up their spirits they consumed their extra supply of grog. This day thus furnishes an interesting incident, for this is the first time that prohibition prevailed in the territory now Montana, and possibly is the first section of the United States that ever went dry before the regulation of intoxicating liquors.

Lewis and Clark had thirty-two courageous and brave men in their party. For his guide he secured Sacajewea, a beautiful Indian woman. She proved a faithful guide and was with the party on their trip throughout the Northwest. It was with her assistance that the establishment of the present boundary line of the United States and Canada was arranged.

These famous explorers were men of vision, keen observers and knew how to write interesting facts about their trip. They were aware of the great possibilities that existed in the series of falls of the Missouri and the meeting of the Sun River and the majestic Missouri at this point, and could picture a big city with industrial and manufacturing city possibilities. They camped in the vicinity of Great Falls for one month and carefully surveyed the falls of the Missouri from the head of the rapids to the mouth of Belt Creek and prepared a map which is to this day a standard map.

Recently a Montana historian, telling of this map, said: "Captain Clark was an exact and experienced engineer but a poor speller."

This survey and trip was commemorated by the Boy Scout Council of Great Falls on May 31 of this year, who arranged a very interesting event. Seventy scouts in all, representing ten troops, hiked over the same trail used by Lewis and Clark, starting at White Bear Island at 8 o'clock in the morning and reaching the great falls of the Missouri at 4 in the afternoon. They placed five bronze markers at places that Lewis and Clark camped. The markers were designed by a Great Falls high school senior student. The figure of Sacajewea pointing to the mountains and the words, "Lewis and Clark Passed Here 1805-1806," is cast on them. The markers are affixed to cement standards. A large public gathering and interesting program completed the day for the boys.

It was not until 1882 that Paris Gibson, living at Fort Benton, and who had read with interest the diary of the Lewis and Clark expedition and Governor Stevens' reports, first examined the site where Great Falls now is being built. In his book, "The Founding of Great Falls, Montana," he says: "In 1882, accompanied by one of my employees at the Otter Creek ranch, I started out determined to fully complete my investigation of the entire series of falls and rapids of the Missouri River. Following an old trail from Box Elder Creek that led to the head of the Missouri River rapids, we came quite unexpectedly upon the high point of land near the site of the Orphans' Home and where the water tower of Boston Heights is now situated. From this viewpoint the scenery presented was exceedingly beautiful and interesting. Although I had traveled much over northern Montana and the country between the Missouri River and the Yellowstone during my three years' residence in Fort Benton, I had never seen a spot as attractive as this and one that at once appealed to me

Left to Right—Great Falls of the Missouri River after development. Scene along Missouri River at Great Falls. Head of Central Avenue in Great Falls, looking east.

as an ideal site for a city. Before me I saw a plain, unbroken by ravines, gently descending for a distance of two miles to the broad Missouri with its low, grassy banks, while, beyond, I beheld Sun River as it runs through the beautiful valley and unites its waters with those of the great Missouri. This scenery, composed of valleys and rivers, flanked by smoothly rounded tablelands, formed a picture never to be forgotten. I had looked upon this scene for a few moments only when I said to myself, "here I will found a city."

Although young in years, Great Falls has become one of the most important business centers of the great Pacific Northwest. Due to its strategic location and railroad facilities, it is the distributing center for northern Montana.

With its tremendous hydro-electric power at hand and raw resources it promises to become one of the most important manufacturing centers of the Northwest. At present three mammoth hydro-electric plants are developing 164,000 horsepower, with 350,000 horsepower available as the need arises. These are units of a great system covering the state with 2,500 miles of high-tension transmission lines. This large system, owned by the Montana Power Company, furnishes light, heat and power not only for the city of Great Falls, her street railway system and municipal operations, but also for the large Anaconda Copper Mining Company smelters and refineries, fifty-five cities and towns scattered over an area of three hundred square miles (which is one and a half times that of the New England states), mines of Butte and Anaconda and the Chicago, Milwaukee and St. Paul system. This railway is electrically operated from Harlowton, Montana, to Avery, Idaho, a distance of four hundred miles. This was the first great

step in the electrification of transcontinental railways and the success which has attended the experiment assures a great development of this motive power in the future.

The largest employer of labor in Great Falls is the Anaconda Copper Mining Company. It employs about 1,500 people. In 1923 Great Falls' copper refinery produced 205,807,887 pounds of cathodes, of which 184,402,584 pounds were melted into shapes. This refinery rolled into rods 110,058,062 pounds of copper; of these rods 42,861,964 pounds were drawn into wire, 12,083,317 pounds being finally made into strand.

The electrolytic zinc plant at Great Falls, the largest in the world, produced 140,363,645 pounds of zinc, 4,011,174 pounds of zinc in dross and residue, from which were recovered 16,837,089 pounds of lead, 2,376,217 pounds of copper, 3,750,529 ounces of silver and 6,012 ounces of gold.

Flour milling is the second largest industry in Great Falls. Two large mills, Royal Milling Company and Montana Flour Mills Company, with a daily capacity of 5,000 barrels, are located here. Montana's superior milling wheat assists these large mills in producing a high-grade flour. The Great Falls Meat Company operates the largest packing plant between the Twin Cities and Spokane, Washington. Oil refining, brick and tile and dairy products follow as leading industries.

Great Falls has forty manufacturers that manufacture the following products: Dairy products, such as butter and ice cream; drugs, cigars, beverages, bakery goods, ice, flour and cereals, vinegar, fixtures and cabinet works, power, iron castings and babbitts, auto bodies, school busses and wheels, lamp posts, coal chutes, brick and tile, gas, harnesses, candies, toilet preparations, packing plant products, carpets, shoes, engravings, refinery products (copper, wire and cable), petroleum products, zinc products and copper sulphate.

With the discovery of oil in the Kevin-Sunburst field, about one hundred miles north of Great Falls, in 1922, another great natural resource was uncovered, which has definitely established Montana as an oil-producing state. There are four producing oil fields in Montana—Devil's Basin field, Cat Creek, Soap Creek and Kevin-Sunburst. The Kevin-Sunburst field ranked second largest producer in the Rocky Mountain district in April; it was second to Salt Creek, Wyoming. The number

of producing oil and gas wells in this new field are 150. Oil from the Kevin-Sunburst field is refined in Great Falls by the Sunburst Refining Company and Homestake Refining Company.

At Stockett, Sand Coulee and Belt, all in Cascade County, great coal fields have been opened up and have been the chief sources of coal supply for this territory for years. These deposits are estimated to contain one billion tons of bituminous coal.

Agriculture is probably the most important industry in Cascade County. There are more than 2,000,000 acres in the county. This area is more than twice the land area of Rhode Island. Within the county are 524,000 acres of agricultural land and 937,000 acres of grazing land. Included in these tracts are 40,000 acres of irrigated land, and projects are now

pending for irrigation of an additional 144,000 acres.

County but the state as a whole. Live stock does well in Cascade County. Its native grasses are credited by experts with being rich in vitamins, and the waters have the necessary lime content to build big-boned, sturdy cattle. The grand champion Hereford bull of America, Panama 110, is a Montana product, bred and owned by A. B. Cook of Townsend.

In Cascade County there are 10,135 horses and mules, 29,878 cattle, 74,386 sheep and 1,739 hogs, according to last year's assessment roll.

The Great Falls Commercial Club has been very much interested in the agricultural development and has been assisting and encouraging the increase of dairy herds, securing of hand labor for farmers to take care of increased sugar beet acreage and the promotion



Business section in Great Falls, Montana—Rainbow hotel on right, Ford building across street and First National Bank building in distance

of a corn and live stock show. Five thousand dollars are being raised in Great Falls to put this affair over, which will be held the early part of November.

Eight marked highways lead from Great Falls in every direction. In this vicinity and along these highways are found 1,400 miles of fishing streams, where the gamey native, rainbow and eastern brook trout are caught. In the Missouri River black bass fishing is a favorite sport among fishermen. Other fish that are caught in the larger streams are pike, catfish, grayling, whitefish and ling. Big game hunting is in abundance in the Sun River Canyon County, which is seventy miles due west of Great Falls. Deer, elk, mountain goat, mountain sheep, mountain lion and black bear are found in these regions. Big game hunting is permissible in some sections of the state, in accordance with state laws and regulations.

Corn acreage has made a sensational gain in the past five years, not only in Cascade

of a corn and live stock show. Five thousand dollars are being raised in Great Falls to put this affair over, which will be held the early part of November.

Great Falls, the city, is considered one of the best planned cities in the United States. This was due to the foresight of its founder,



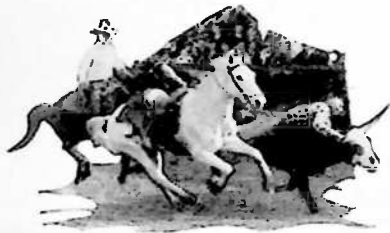
Pure bred herd of Hereford cattle, raised near Great Falls



## Rocky Ford, Colo., Melon Day

A prospectus of the program to be offered at the Thirty-third Annual Fair at Rocky Ford, Colorado, September 2, 3, 4, 5, shows the same big list of attractions that has marked this event for the past years.

In the first place there has not been a year for a decade in which the crops all up and down the Arkansas Valley were looking so nice as they do at the present time, and every-



one seems optimistic of the future. The expansion in agriculture and all other departments will be much larger than usual and in themselves will be a feature. This year there will be an added feature in the agricultural de-

partment in the form of a Canadian exhibit, which, while it is not in competition with the United States exhibits, will attract a lot of interest by way of comparison. This is fruit year, and the horticultural department is sure to be filled to overflowing.

the late Senator Paris Gibson. Its shady, well-kept streets and boulevards are parallel and its avenues cross them at right angles. An abundance of power permits a lighting system for the city which is unexcelled. It is a city of beautiful homes and attractive business blocks. Seventeen public parks, comprising an area of 720 acres, with its children's playgrounds and place for rest, helps make Great Falls an ideal place in which to live. Its large electric sign, "Welcome," is the first one to be seen on arrival at Great Falls and typifies the West as to its progressive spirit and hospitality. Great Falls bids you welcome.

### Satisfactory

Mae: "How did George take it when you told him you didn't love him?"

June: "Simply wonderfully! He carried on like a wild man."—*American Legion Weekly*.

The poultry and livestock departments will as usual be well worth a visit.

Heading the entertainment program will be the same high standard running races that have marked this fair for the past three years, with W. R. Fulmer of Omaha, Nebraska, in charge of the races and Arthur McKnight of Kansas City as starter. The prospect for a big stable of runners is better than ever before, as running horse owners are becoming cognizant of the fact that the Rocky Ford races are just as advertised, that all purses are paid and that everyone gets a square deal.

An innovation in the wild west game has been adopted by the association this year. During the time that the fair was putting on a rodeo in connection with the fair all the now world champions, such as Stroud, Strickland, Roach and the rest, were here for the contests, and the real cowboy had little chance. This year the contest will be for the real hands, and the announcement that has gone out to the boys has met with great enthusiasm, and they are coming to the camp-meeting in droves, and the old-time cowboy camp will be well worth a visit. Some handsome prizes are being offered for the different stunts and also

for the best bucking horses, and it is already an assured fact that there will be the greatest aggregation of outlaw beasts that was ever gathered together in the state.

Automobile races will occupy at least one day of the fair, and some of the best riders in the state have promised to enter the events, coming here directly from the annual climb of Pike's Peak on Labor Day. A novelty in the automobile game will be an automobile relay race, which is something new and which contains more thrills than any race that was ever put on a track. This, with a dozen other novelty races, with free acts of high standard, with funny clowns and plenty of music, will make up a program that will be sure to please everyone.

Twenty acres of watermelons are being grown under contract for the big pile of 25,000



melons with which the guests of Watermelon Day will be entertained at noon.

### Using Old Inner Tubes

J. A. Davenport, Payette, Idaho

In experimenting with old discarded inner tubes, I find they can be turned into very profitable use. Here are a few of the things I found they can be used for: Cut the 3½-in. tubes into suitable lengths and they make fine protection for the extra exchange insulators that are carried in the trouble wagons. For the toll line glass it takes a larger tube. Take a section of the 3-inch tube, leave a flap on one end, tack a block of wood in the other; it makes a fine container to carry mouthpieces

in, or screws and small repair parts. The 4-inch tubes made the same way make fine containers for desk stand or receiver cords; the 4½-inch tubes make good containers for automobile tools, or heavy tools of any kind. The same plan can be carried out in making pin trays for the desk—the tops can be ornamented to suit the taste. Fancy purses for the ladies can be made by fringing the ends and then sewing the two pieces together, cementing on straps for carrying. Try your hand and maybe you can discover other uses for this waste product.

## BLUE BELL TRIO

By Betty Devine

You've heard of "Three Men in a Boat?"

Not the same chaps at all, these, for this happens to be "Three men in a box"—our "Blue Bell Trio"—which played its second engagement recently at the Colorado Theater in Denver, making a unique stage entrance sitting in the top of a huge phonograph as the lid was lifted.

The boys never failed to get a good hand each performance and it was plain that the audience wanted more but the length of the picture (Mary Pickford in Dorothy Vernon of Haddon Hall) in conjunction with which the musical stunt was running, prevented the management giving more time to the Trio.

The Blue Bell Trio is a product of the Demonstration show which has thrived, flourished and sprung into fame thru a real desire to be of service to the Company and to give the best possible talent to its cause.

Each of the boys—Al G. Kyffin, assistant engineer in the Denver plant department; Harold Ferris, plant accountant in the general auditor's department, and Jack Whyte, clerk in the office of the Colorado auditor of disbursements, had contributed individually to various Demonstration show programs with vocal solos when they suddenly conceived the idea of combining their voices and doing something a bit out of the ordinary, something that might take better with the public than just straight solos, so they talked it over and got busy "right now" working up songs that would be pleasing. This necessitated not only a lot of thought and some special skirmishing for adaptable songs but also a lot of time spent in rehearsing until they attained the near professional degree of perfection insisted upon by the boys themselves.

They appeared—as a Trio—in nine Demonstration shows the past season making their debut on February 4, for Consistory No. 2, El Jebel Temple, and among other outstanding programs took part in the Radio show and the luncheon for the Denver clergy.

When the A. B. Club show was scheduled the boys showed characteristic interest in getting up something special and again when President Thayer visited us they put over a surprise when they came out from the wings onto a completely darkened stage each carrying a candle, the dim light of which revealed its owner attired in a long nightshirt singing "Sleep." It was a tremendous success as was their "It Ain't a Goin' to Rain No Mo'" sung in raincoats and carrying miniature Japanese umbrellas.

They all have excellent voices; Al Kyffin, first tenor; Jack Whyte, second tenor and Harold Ferris, baritone, but even so, their success has been nothing short of phenomenal for they have within the space of just a few months—



Photo by Orpheum Studio

Blue Bell Trio—Al G. Kyffin, Jack Whyte, Harold Ferris.

and with their singing entirely a side issue to their work—stepped into the ranks of professionals, playing two engagements at the Colorado, showing to probably between forty and fifty thousand people, and having several other offers to appear professionally.

One of the most praiseworthy features of their success is that it has not turned their heads nor tempted them to go in for a professional career. Their first ambition is to be Telephone men, and singers, secondarily.

Neither are they neglecting this ambition to further their professional popularity for they set a rigid rule of making up outside office hours, time taken from their regular work.

Their pride in their work and the company

for which they work is also shown in the name they have chosen, "The Blue Bell Trio" which is certainly coming in for considerable featuring.

Like most men attaining success along any special line, the boys point to a woman as being largely responsible. Nope, 'tisn't a wife—though for the benefit of any impressionable young women who may be ambitious to meet the "celebrities," we may as well state that all are married.

To Miss Jessie Blakemore of the Denver commercial office, the boys are unanimous in giving full measure of praise and credit for whatever success has come to them. According to the boys—themselves—Miss Blakemore was not only always ready and willing to accompany them any time they felt the need of rehearsing but also offered many helpful suggestions and no small amount of encouragement along with acting as regular accompanist to the Trio.

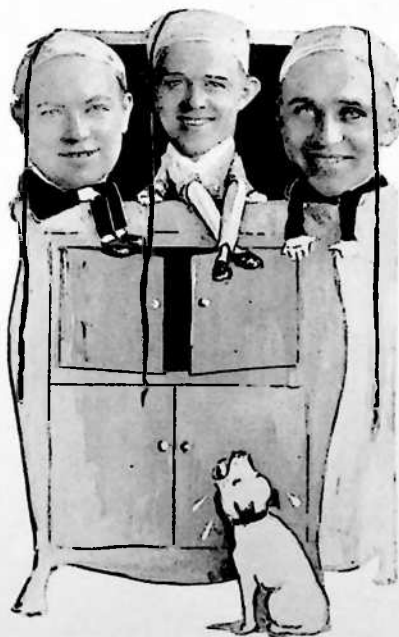
The Trio is not the only outstanding success the Demonstration shows have developed.

There is Miss Merle Mattison, famed for her whistling who has been on one of the leading vaudeville circuits the past season as a direct result of her clever work with the Demonstration troupes the first two seasons.

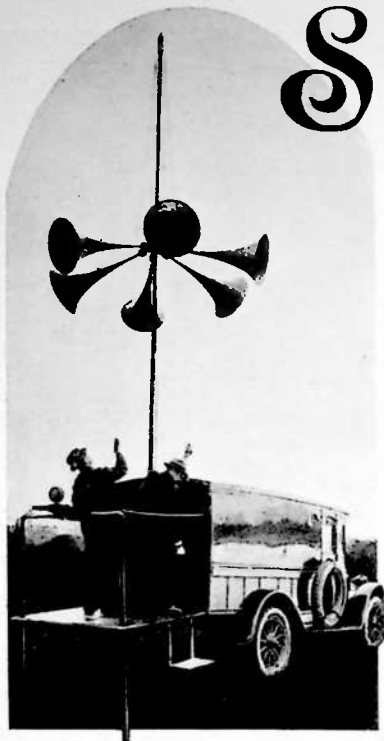
And now comes news that Roy E. Churchill of the Colorado Plant department, has signed up a two-year contract with a phonograph company to make piano records.

Mr. Churchill has already gone to Kansas City to begin his professional work, though he assures us that he, too, still cherishes the desire to continue his telephone work and that he fully intends to keep up his studies along this line in the hope of coming back to the fold with the close of his contract.

Mr. Churchill also gave much time and talent to the Demonstration shows. Wishes for continued success and his return to the Blue Bell family go with him.



# Spreading Political Gospel



**VOICES** of political spellbinders are being raised in the presidential campaign of 1924. The quadrennial return of oratory has come with the usual pointing with pride, viewing with alarm, and saving of the nation.

But nothing is the same as it was four years ago. Voices and personalities are now being projected to audiences so great that in former days they could not be reached by a speaker, even with his voice strained to the utmost, the Public Address System—striking by-product of the telephone art—has come to the aid of the party. And to the aid of the country.

This assistance of science does not detract from the picturesque quality of the campaign; instead it adds to the interest and atmosphere. One newspaper writer described the sound projectors used at the Democratic National Convention in New York as a "cluster of gray morning glories." Even when the speaker was not present—his words being picked up by radio and amplified by the Public Address System for the benefit of crowds far away from the rostrum—personality carried with striking effect. Unseen crowds warmed to one speaker, cried with another, laughed with another, as enthusiasm ebbed and flowed just as it did in his presence.

The Public Address System is well adapted to the uses of politics, especially in its mobile form. It is completely self-contained, and apparently just a fast-motor truck. In reality it is a means whereby a speaker may address a hundred thousand people, depending on weather

and acoustic conditions, so that everyone in the audience will hear clearly and distinctly every word which the speaker utters.

In less than fifteen minutes the motor truck is transformed and becomes at once a rostrum and a system for carrying the human voice far beyond its natural range without sacrifice of quality.

The equipment comprises a vacuum tube amplifier housed in the body of the truck, and large projectors mounted on a telescopic mast fitted to the truck. It is the work of only a few moments to erect the mast to its full height with the horns at the top.

When the tail-board of the truck is lowered, it becomes a well-devised speaker's platform, supported by legs of iron pipe.

The platform also has a railing of pipe and rope for the sake of convenience and safety.

The speaker mounts the platform by means of portable steps and finds a large stand placed conveniently on the front rail to serve both as a reading stand and as a support for the Microphone of the Public Address System. There is ample room on the platform for the speaker to move about and feel perfectly at ease.

It is the Microphone which picks up the words of the speaker and passes them on to the vacuum tube amplifiers. After the voice is amplified, it is projected through the horns

at the masthead, so that even the outskirts of a large crowd will hear perfectly.

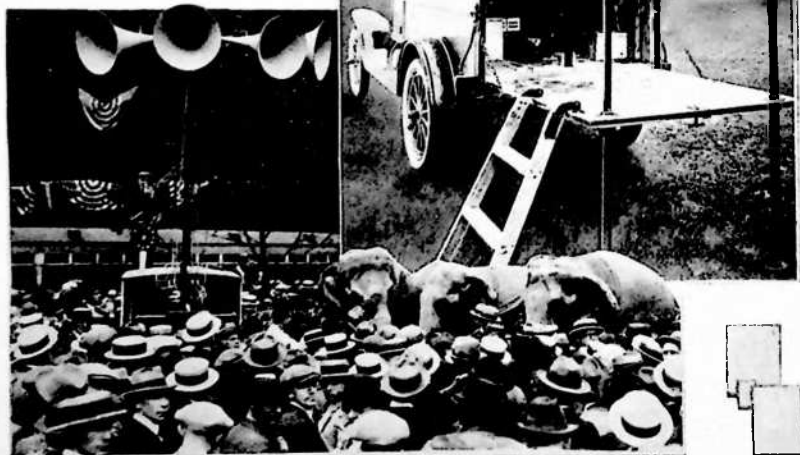
A phonograph is carried with the truck and ordinary records used to entertain the crowds by the same system of amplification and projection. If the radio habitue brings a radio receiving set to the truck, radio programs can be used in the same manner.

This truck with the Public Address System and its complete speakers' platform, is the embodiment of everything a public speaker needs except, perhaps the usual pitcher of water and that can readily be placed on the stand. But with the new system of voice amplification, water is fast becoming a tradition, and speakers do not need any first aid for the throat.

Politics is one of the newer jobs of the Public Address System, but coming to the aid of the party is not its only or even its principal service. Great cathedrals have installed the system in some one of its forms; theaters, auditoriums, and steamships make use of it, through it have come important speeches and addresses, announcements at races, and at sporting events. The mere list of the uses to which the system has been put would take considerable space. But this year is the spellbinders year.

"Ladies and gentlemen, I am indeed glad to look upon all these bright and smiling faces—." He's off.

*First G. O. P. Campaign speech after nomination of Coolidge and Davis, and Elephant Trio roaring out its approval.*







Main Street in Salt Lake City, Utah.

**The Monitor Covers**  
(Montrose, Colo., Press)

The cover of the June issue of THE MONITOR, monthly publication of the Mountain States Telephone and Telegraph company, is beautifully decorated with a colored reproduction of Shiprock, in New Mexico. THE MONITOR has become exceedingly well known throughout the state for its cover designs, and also the contents of the magazine itself.

(Farmington, N. M., Hustler)

THE MONITOR which is published by the Mountain States Telephone and Telegraph company, and which specializes in artistic covers, in last issue has a front page cover of a photographic production of Shiprock in colors which was tinted by Paul Willis, artist of our town. The cut shows Shiprock in all its grandeur with two Navajos on horseback wearing their blankets with various colors in the front. It is one of the most beautiful covers this publication has produced and it specializes in scenes of natural beauty. The photo was taken by the Pen-Dike studio of Durango.



**In For Anything**

A woman made a purchase from one of the flower girls in Piccadilly Circus and said: "I suppose you will be here on Wednesday! I shall want a lot of flowers for my daughter; she is coming out on that day."

"She shall have the best in the market, mum," replied the flower seller sympathetically. "What's she been in for?"—*Pearson's Weekly*.

When a man is all wrapped up in himself he makes a pretty small parcel.

**"In the Midst of Life"**

With the passing of Helen Webb, operator at the South Exchange, Denver, we are reminded of the words of Lord Byron, "Heaven gives its favorites early death."

Only six months a member of our Telephone family, yet in that short space of time she won an enviable place for herself not only through conscientious service and efficiency in her work but through her ever cheerful and kindly nature.

Some way to think "Helen" meant always to think LIFE—in its fullest, with all that makes life worth while, youth, beauty and a disposition sunny as the gold of her hair. News of her sudden and untimely death came as a tremendous shock and corresponding grief to her associates at South and to all who knew her.

If she met a girl once, she never forgot her, nor did she forget to speak to that girl and drop a word of cheer and encouragement the next time they met.

She was unspoiled by her beauty and the distinction that came to her in being often called upon to act as supervisor, or to take part in some entertainment. It was all just a part of the game of Life with Helen and never seemed to impress her with her own importance. She had a way of accepting whatever came in a simple, graceful manner and probably just this same simple faith, this fine spirit enabled her to penetrate the thin veil of mystery that divides this life from the world beyond earlier than any of us dreamed possible.

There is a break in the ranks, and an ache in the hearts at South but Helen's was a personality that lingers as the odor of a rare perfume and memory of her pretty face, her happy smile and loving nature will live long in the hearts of us all.

"Ever absent, ever near—  
Still we see thee, still we hear—  
Yet we cannot reach thee, dear."

**Mountain States Man Commissioned**

The brains that make good telephone men also carry these men to success and honors in other fields, and that they can have interests on the "side" is evidenced by the fact that a Mountain States employee has recently received a commission in the officers' reserve corps of the United States Army.

Howard L. Hackstaff, engineer in the general traffic department, has received an appointment as major of field artillery. Major Hackstaff could at any time turn from traffic problems to manipulating Uncle Sam's big guns, and be equally at home in either calling.

We are proud of Major Hackstaff, who represents preparedness for whatever may come to our country.



This is J. W. Dudley's successful swimming team at the Blue Bell Club of Twin Falls, Idaho, picnic at Artesian Hot Pools.

# Twenty Years Service or More

Twenty years may seem a long, long time to the fellow who just sits around and does nothing to make the world better and happier; but to the man or woman who do things Time slips away pretty fast, and the hours are not weary. Every few days there is someone in the Mountain States Company who has reached the twenty-year period of service and then the Emblem Service committee gets down its little mahogany box and takes out a service button or pin and there is a little ceremony.

It's a mighty fine thing to be able to wear one of these service pins—whether it be for twenty years or for five years. It is just a little token of appreciation, and shows that there is something considered more than mere labor in our organization. It bears a fraternal significance that weaves itself into the very heartstrings of life.

THE MONITOR is unable to get information on all those who have reached the twenty-year or more period, but it would like very much to have a word from everyone when he or she comes up to that line. We do not insist upon it, but we are always glad to print the names or notices sent in.

On June 6, William E. Hess, inspector in the construction department, received his 25-year pin. We tried to get hold of him at El Paso. There we were notified he had gone back to Denver, and so on. Anyway, William is a good scout and it is fair to believe that he has been a faithful employee or he would not have stayed with the telephone company that long.

Alonzo E. Cook is another to reach the twenty-year service goal. For the past few years he has been group manager located at Steamboat Springs, Colorado. His territory extends along the Moffat railroad from Fraser to Craig. This is a big territory, high mountains, large lakes and rivers, and it follows that our representative should be a big man, which describes Mr. Cook.

## JENNIE COOKINGHAM

Twenty years of uninterrupted service sounds like a good long time—and it is; but when usefully occupied and getting results it is not so long after all—at least that's the way Miss Jennie Cookingham, ledger supervisor at El Paso, feels about it.

On June 9, 1904, a timid, shy young thing with prim plaits hanging down her back, hesitantly asked C. E. Stratton, manager at Trinidad, Colorado, for a job—yes, it was the same C. E. Stratton who is now the big chief for New Mexico-El Paso. She was pretty well scared about it, but she wanted the job badly and was going to get one somewhere, which is quite characteristic of her, and Mr. Stratton,

who is big hearted, hired her with some misgivings, and she was put on as an extra operator. It was not long before it was discovered that no mistake was made. The shy, quiet little girl put her mind to learning the work and was soon put on as a regular operator. Three years later she was made assistant chief operator. Just because she was an operator didn't stop her from learning other details of the business and the next thing we know of her she was appointed cashier of the Trinidad office and then, about a year later, the auditor of receipts of the general office, Denver, reached out and made her one of the ledger clerks at headquarters.

It was about this time that the Mountain States Company was actively developing the telephone business in the Rocky Mountain region and having acquired the territories of Arizona and New Mexico, division offices were established in El Paso, and Miss Cookingham with some other experienced office people were transferred to El Paso to put the job across. That was in April, 1916. In October, 1918, she was made ledger supervisor.

One of the most unusual things in Miss Cookingham's service record is that she has never been on Benefit—that is, she has not lost any time because of sickness. F. W. Bown, state auditor, says she is one of the most dependable associates in the business that he



Miss Jennie Cookingham

has had the pleasure of working with. He further said that whenever he turned anything over to Miss Cookingham for execution, he ceased to worry about it for he knew that it would be returned to him complete and accurate in every detail. For the Boss to say this about one of his subordinates is somewhat unusual. It reminds one that the "Message to Garcia" immortalized by Elbert Hubbard can be carried by others than Lieutenant Rowan.

## GEORGE W. FRAZIER.

George W. Frazier, wire chief at Greeley, Colorado, gives the following account of his service with our Company:

"Twenty years of telephone service, and yet it seems just a few yesterdays ago that I joined the ranks of this large and happy family.

"I wonder if Mr. C. L. Titus, superintendent of maintenance at that time, remembers how I pestered him for the first opening that came along. That was during the spring of 1904, and on May 14 of the same spring I was notified that I could report for duty the following morning.

"Happy? Well, I should guess; right then and there the L. J. Welch Grocery company, on South Broadway, Denver, lost a 'nice grocery boy,' as Gertrude and Dave Livingston will remember.

"As I look back over the twenty years I fail to recall a single thought of regret that I cast my lot as I did.

"I well remember my first job. It consisted of visiting those pay stations of the old 'wall type' and 'cabinet' type, and removing therefrom the small piece of carpet placed on the bottom of the money drawer. It was placed there, I presume, for the purpose of providing a soft spot for the lead dollars to land on, eliminating the possibility of bending them out of shape!

"My occupation from then on, until I became connected with the installation department of the Western Electric company, varied from that of a 'Frame Dog' to 'Ticket Shoot Ferret and Switchboard Man.' My experience as a switchboard man gained for me a position, (or rather a job), with the Western Electric company, shortly after the Telephone Company had laid off a number of employees because of the uncertain business conditions at that time; this was, if I remember correctly, in 1907. The York exchange switchboard was just nearing completion and was ready for the preliminary 'test out.' A number of other boys, who figured in the lay off, as well as myself, were put to the task of clearing the trouble in the new switchboard.

"After the cut-over of the York switchboard we started the installation of the Champa switchboard. I remained with the Western Electric company until the Champa job was completed. On December 25, 1907, I boarded a train headed for San Francisco, California, and on January 1, 1908, I started with the Pacific Telephone company in that city, leaving their service on April 17, 1911.

"The remaining nine years have been spent in the service of the Mountain States Telephone and Telegraph Company, 'The Pride of Them All,' at Denver, El Paso, Colorado

Springs and Greeley; the latter being my present location. I honestly and sincerely consider my twenty-year service emblem to be my greatest asset, and have high hopes of adding another twenty."

**George Spalding**

Not to be outdone by those around him who are reaching their "majority" in the telephone service, George Spalding, tax commissioner for The Mountain States Telephone and Telegraph Company, stepped into line Monday morning, July 21, 1924, and received his Bell service pin, upon which was engraved these words, "25 years."

And then, just to show their respect and good will toward Mr. Spalding, some of his

# A Real Mothers' Entertainment

G. W. L.

Sometime ago a rumor reached us at Sheridan, Wyoming, and by perking up our ears, it developed that the rumor was caused by a unique idea of an entertainment dedicated to the Mothers of our Employees. Having been in the position of Bell Mare in these social affairs with our employees and the public we stepped out on the matter. As we have so little sickness at Sheridan, our Employees Benefit Advisory committee had a touch of hook worm for sometime, so this committee which consists of Myrtle Morgan, Alyse Rappuhn and Vivian Berggren, took charge of the

visited, after which sherbet and cakes were served. The visiting ladies were given pretty red carnations, those on the program received sweet pea corsages, and the sterner sex received a smoke. It was hard to part but at 11 p. m. all were on their way home, voting the telephone girls the best ever at entertaining.

A significant incident of the meeting was the presence of Jack Read's mother who was a guest of honor. J. Y. Read, a foreman, was killed at Billings, Montana, just three years ago. Mrs. Read loves the telephone folks and we all love her.

Folks, we are still the Bell Mare. We Do and Dare, So Beware!

**Bozeman Girl Gets Ten-Year Service Pin**

On Saturday evening, June 21, R. J. Conrad, the Bozeman, Montana, exchange manager, was host to all of the employees of the Bozeman exchange, at which time Miss Ella G. Moxley was presented with a ten-year service pin. Presentation was made by S. P.



George Spalding, Tax Commissioner, and bouquet of American beauty roses.

associates in the company called on him to wish him well and presented to him a bouquet of American Beauty roses.

Mr. Spalding started with our company twenty-five years ago climbing poles as a trouble-shooter under E. M. Burgess. He climbed right along to the position of installer, inspector, and then superintended the building of many of the lines out of Denver. He had charge of a gang of men who changed the old grounded Blake system over to the magneto. He held several important inside positions in supervisory work, and in 1918 was made tax commissioner, a very high and responsible position. He is one of the fine men of our company and the high esteem in which he is held was attested on July 21 by the many friends and associates who called on him to shake his hand and to say "George, we're for you stronger than the wires that girdle the earth."



**Slow, But Persistent**

Rastus: "Whah yo' gwine?"  
 Sambo: "Home."  
 "Home! I thought you an' yo' missis had a ruckus dis mo'nin'."  
 Sambo: "Yeah-huh. But Ah done jes' thought o' sumpin' mo' to say."

arrangements and entertainment of the mothers. Sub-committees composed of Orpha Carroll, Sarah Evans, Mona Evans, Bernice Evans, Virginia Heck, Bernice Holden, Matilda Kuhl, Laura Mizera, Maud Pierce, Alice Rogers, Allic Rowe, Blanche Schmitt and Eva Speakerworth were appointed for details.

These girls went after the matter so hard and faithful and were so nobly assisted by Miss Myrtle Barker, Sheridan's cashier, that Mrs. Greenlee, chief operator, and Lila Hammond, evening chief operator, who had agreed to stay out of the matter, found themselves working for the success of the party also. They were not to be blamed, anyone who came in contact with the committees and the spirit in which they worked as individuals, could not stand idle.

A high class program of vocal, instrumental music and classical dancing was given. After which a punch bowl was tapped. The gathering was divided into groups, the plant men started the visitors at the bottom in the cable vault battery room and terminal and power room, then the operators took their friends, showed them the switchboard, explained its detail. Here the mothers and fathers and dear ones saw their daughters perform the duties of a first class operator. The rest room was



Ella G. Moxley

Officer, who outlined the long and faithful service which Miss Moxley has given the company. Oscar F. Benson, traveling auditor, made a short talk and Mr. Conrad enlivened the evening with one of his recitations with piano accompaniment.



**Joe, the Axe, Please!**

Husband (reading from newspaper)—  
 "Three thousand four hundred and twenty-six elephants were needed last year to make billiard balls."  
 Wife—"Isn't it wonderful that such great beasts can be taught to do such delicate work?"

# The Telephone Business

**T**HE TELEPHONE came as a direct result of a desire to serve humanity and the study of human speech through three generations; both the father and grandfather of Alexander Graham Bell, the inventor, having been elocutionists, and the father having perfected a system of symbols for teaching correct speaking which he called "Visible Speech."

Alexander Graham Bell was also deeply interested in this study and when twenty-four years old was teaching in a school for the deaf in Boston and was soon well established in this profession. He early became interested in the telegraph and was continually experimenting on an instrument called the Harmonic Telegraph, through which it was thought by producing various musical tones, to make possible the sending of several telegrams at one time, and toward the perfection of an instrument by which he hoped to teach the deaf to speak. Much of his inspiration in this work came from Georgic Sanders, a little boy who had been deaf from birth, and Mabel Hubbard, a young lady pupil who had lost her hearing through scarlet fever and who afterwards became his wife.

In 1875, while experimenting on the harmonic telegraph, Dr. Bell discovered the principle of telephony, and through a slight accident to his model in June of that year discovered its practical application. In March, 1875, Patent 174,465 was issued covering the invention of the telephone, and a few days later the instrument was brought to that point where the well-known command, "Mr. Watson, come here; I want you," was given.

The development of the telephone has been . . . Although it took three generations or study to produce a man so gifted as to invent the telephone, during this man's life the business became world-wide; and in our country it is difficult to find a settlement of a dozen families that is not connected through one of the twenty-six associated companies which constitute the Bell System, either by company-owned or privately-owned telephones.

There are, of course, several reasons for this. The value and practicability of the telephone assured its rapid growth, and once established it was bound to become universal. However, the development of the telephone business is unique.

The telephone was conceived in a desire on the part of its inventor to serve his fellow men. The first Bell Telephone Association consisted of Doctor Bell, Thomas Watson, his young mechanic friend, and the fathers of his two pupils who had been his inspiration, Thomas Sanders and Gardiner Greene Hubbard—a company of friends; and this spirit of service and friendship which brought together those pioneers has developed with the growth of the business to a company of 243,000 friends, all putting the best there is in them into this business of service.

The telephone itself is almost human, for it speaks—a gift no creature other than man possesses—and the idea of the disc in the receiver was obtained through study of the ear drum in the ear from a dead man, given Doctor Bell by a physician friend.

*Bertha Grisham, Commercial Department,  
Pueblo*

From the beginning the telephone business was established on a broad-minded policy. Doctor Bell had discovered the fact that the human voice could be reproduced through electric wires and had invented a receiver which was used both for talking and listening, with one grounded wire used to connect the instruments. He patented his invention and the association had to fight many lawsuits entered by pretenders who tried to prove their claims to the invention; but he had no desire to keep all glory to himself. Improvements were welcomed and paid for, and this policy has brought wonderful men into the organization.

Berliner invented the transmitter. Rev. Hunnings improved upon it, while a Bell expert brought it to its present state of perfection. This was a wonderful improvement, but lines were so noisy as to render service almost valueless. Then appeared J. J. Carty, now Colonel Carty, of international fame, with the idea of two-wire circuits, thus avoiding contact with the earth, with its consequent induction disturbance. To Colonel Carty also belongs credit for the phantom circuit by which three circuits are produced by two pairs of wires, and it has been written that he has contributed more to radio than any other living person.

As early as 1877 it was found that two telephones directly connected did not constitute real service, and a switchboard was improvised by Watson and various types used, until E. T. Gilliland developed a practical switchboard of the old peg type telegraph board, and it was this man who, by gathering around him a number of high school graduates in the production of telephone equipment, became the founder of telephone engineering. Later Charles Scriber entered the field and has contributed most to the multiple switchboard of today, which makes it possible for every operator to ring any subscriber from her position, and without which universal service would be impossible.

Thus it is all through telephone history. The development of the business organization known as the Bell System, making possible nation-wide service, is due largely to Theodore N. Vail, who from the beginning had this for his goal; and the realization of his dream was made possible by the inventive genius of hundreds and the loyal service of thousands of men and women.

The telephone of today is, however, the invention of Alexander Graham Bell, a replica of the first instrument being used as a receiver when in 1915 Doctor Bell in New York called Thomas Watson in San Francisco. Hardened copper wire and use of repeaters through improved transmission made long lines possible; cable, aerial and underground, have simplified construction and maintenance. Submarine cables have made communication possible with Cuba, and wireless now permits of conversations across the sea.

The crowning achievement to date is the amplifier, through the use of which audiences estimated at 155,000 gathered in New York, San Francisco and Arlington Cemetery were enabled to join in services for the Unknown Soldier on Armistice Day, 1921, and hear every word of President Harding's address. This shows the possibility of making one vast audience of the population of all important points

in the United States; and as President Thayer of the American Telephone and Telegraph Company spoke to London in January of this year and was clearly understood at that point, we now see, through the agency of the telephone, the possibility of making neighbors of the world.

The telephone instrument on the desk or wall and the voice of the operator are not such as to impress the user of telephone service with the enormity of the business. In order to obtain some idea of this, I would ask you to imagine a city of 243,000 working population with a business district occupying 1,600 office buildings and a manufacturing plant alone providing 70 acres of floor space. There are, of course, in addition to these, many other smaller buildings and often cottages containing switchboards, for there are nearly 6,000 telephone exchanges in operation; in many instances the smaller ones being operated by widows, who are by this means enabled to provide for their children and at the same time remain at home with them.

Hundreds of lunch rooms and cafeterias maintained by the Company for the convenience of employees provide eating places in this city, while rest rooms and many dispensaries in charge of trained nurses provide hospital facilities, and our corps of physicians is second to none.

Naturally there is no discord in this city, for every transaction between employer and employee is based on justice; but to protect the interests of the city there are many lawyers of unquestioned standing in their profession.

Our force of cashiers, auditors and accountants, coupled with our savings department, where a part of our earnings are applied on the purchase of American Telephone and Telegraph stock, provide ample banking facilities and space in vaults for stock certificates is given free of charge.

A number of periodicals are published by our Publicity Department, illustrated by our own artists and cartoonists, and contributed to by many employees; and of course all the best magazines are found in our rest rooms and all the leading daily newspapers of the United States found in our offices, so we do not lack good reading matter. Much use is made of these opportunities as each operator is given two fifteen-minute rest periods each day, which are usually spent in the rest rooms, reading, playing—for we have many pianos and phonographs—singing or dancing. The girls need these rest periods, too, for you know last year half the population of this country called them every day—at least, they handled 18,250,000,000 calls, which is equal to this. In addition to the above our directory department publishes 2,500 separate books, most of them twice a year. The 5,000 proofs are carefully read by this department, and the entire eighteen million copies are pretty generally read by the public during their six months' life, though this is almost five times as many volumes as contained in the Congressional library, including maps, prints, photos, etc.

Our telephone city is kept in shipshape by the painters, carpenters, steamfitters, electricians and others in our ranks. We are also protected by firemen and patrolmen from our manufacturing plant ranks. Hundreds of brilliant men in our research and engineering departments are constantly working toward improvement in equipment and methods and preparing for growth. This is an enormous

undertaking, due to our growth, for since 1900, while the population of our country increased 37 per cent, demands for our service increased 1,000 per cent.

Our army of tree-trimmers would qualify as foresters, and we must have foresters, for our city stands near a forest almost half the size of the Yosemite National Forest, which represents the area which would be forested by our fifteen million poles.

We are never lonely in this city, because thirty million miles of wire and 14,500,000 telephones connect us with our neighbors—the entire population of the United States, for you know one person in every eight has a telephone, and our public telephones supply service for the others. Then our 203,000 stockholders who are not employees sometimes visit us and look over the business. The other 47,000 stockholders are employees and there are 94,000 of us now purchasing stock on the installment plan provided by the company for employees. Everyone is welcome, whether a stockholder or not, and it is considered an honor to be given the privilege of showing visitors over office and plant, and we delight in having them visit our museum, which is filled with historical telephone equipment and is on the twelfth floor of one of our office buildings.

And such recreation as we have! We have tennis, bowling, ball games, dancing; and we have many musicians, vocalists, dancers and other artists in our ranks, so that it is possible to present almost any sort of program we desire. We also have many delightful picnics, for we have a whole army of motor cars which may be appropriated on special occasions.

One business, however, is not represented in our ranks—we have no undertakers. This may seem strange on first thought, but the aforementioned recreation is conducive to good health; we are given annual vacations with pay, which also helps to keep us in good physical condition. When we are ill the benefit plan provides that our pay shall continue and assures us of care. We have the best physicians available to restore us to health, and when we are too old to work we are pensioned; so there is no incentive to die.

Of the necessity for telephone service there can be no question. From our advent into life until the final leavetaking there is no emergency or important event of any nature that we do not turn to the telephone.

The telephone has added years to man's life—not in the years lived, although in hundreds of cases it has done even this, but in the saving of time during the years of life; for time is like the proverbial penny, and an hour saved is an hour gained.

As an illustration of the necessity for the telephone, I might mention that during the reconstruction period following the Pueblo flood in 1921, many expressed the opinion that the importance of telephone service was second only to the water supply. Lamps and candles provided light; coal, wood and oil could be used for fuel; automobiles and other means of transportation were available in place of street cars; but there was no substitute for the telephone. Hours were spent in the transaction of business that could have been completed in a few minutes by telephone.

We find through contact with subscribers that many women alone in homes at night feel that they can stay there only when they have the protection of telephone service, which places them in instant communication with the police department, often by simply taking down the receiver, for one of our night operators who gets a signal and receives no reply to her "Number, please," promptly notifies the police department of this fact, and lives have been saved through this practice.

In the mountains men are enabled to make trips over perilous passes in the winter with little chance of perishing, since if they do not telephone of their arrival in due time rescue parties will go to their aid. A recent illustration of life-saving by telephone occurred when a man was caught in a storm in Western Colorado. The man was practically lost when he came to—no, not a farm house or any human habitation, but a telephone installed in a box on a telephone pole. He called the nearest exchange and help reached him in a short time. Thus today the telephone is a Good Samaritan in fact.

The use of the telephone is growing even more rapidly than the number of telephones. Most marketing is now done by telephone. Many business and social engagements are now made in the same way. We reserve seats for the opera by telephoning the box office. If called suddenly away, we telephone the depot for train information; a taxi company, if time permits probably a friend also; and very often the telephone company, to arrange, if possible, for the transfer of our calls to another telephone, for there is quite a general feeling that even when away our telephone calls must be taken care of.

The telephone is a sure cure for homesickness, as witnessed by the thousands of long distance calls at Christmas time, on birthdays and anniversaries. In time of trouble it is a friend indeed, for by it we summon those most near and dear; and truly the voice coming to us over the telephone is a comfort second only to actual presence.

Business as business is known today could not possibly exist without the telephone. Sky-scrapers would have been impractical if all errands had to be run by messengers on elevators. Even within the moderately large business a force of messengers adequate to deliver all messages would be clumsy of operation, to say nothing of time lost in waiting for replies.

The use of the telephone in connection with sales work is becoming quite general, as progressive business heads realize that telephone toll charges are much less expensive than railroad fares and hotel bills, and in a great per-

centage of cases quite as effective as personal calls.

Our great daily newspapers depend greatly on the telephone to acquire their news, and through the United Press important news is telephoned to a number of newspapers over one wire, thus providing a means for the smaller publisher to avail himself of the same news service that is enjoyed by the largest publishers.

It is interesting to note that there are approximately the same number of telephones and automobiles in the United States—one to every eight persons. From this we deduce that this unpretentious little instrument has a capacity for work equal to a motor-truck which represents an investment to the business man of hundreds or even thousands of dollars.

It is difficult to estimate the amount of property saved in fires by the use of the telephone; and of much greater importance, the number of lives saved. Occasionally through the award of Vail Medals to telephone employees for special acts of bravery, these occurrences are brought to our notice; but newspaper notices of fires extinguished with little damage, due to quick action of telephone operator, disasters with no loss of life, due to warnings given by telephone operators, and the like, are so frequent as to cause little comment.

In the recent war the importance of the telephone can hardly be over-estimated. It was one of the necessary industries taken over by our government to enable us to succeed in war as in peace. Radio telephone equipment for airplanes and submarine chasers, radio telegraph equipment, including portable field sets, signalling apparatus, etc, were some of the contributions of the telephone to our success.

We cannot question the necessity for a service which protects our country in war and our homes in peace; which aids in bringing the physician when we are ill, our loved ones when in trouble, or homesick and lonely; which warns us of impending danger and assists us in business. The question is not of the necessity for this service, but how we managed to exist before the advent of the telephone into our daily life.

## Doings at Roundup, Montana

### Roundup, Montana

About 5:30 o'clock in the afternoon of June 17 three cars left the telephone office at Roundup, Montana. The three cars carrying all those connected with the office, the manager's wife, one of his best friends, who later proved to be the life of the party, and last but not least the "cats" which of course no picnic is complete without. We followed one of the main roads and then took a little infrequently traveled branch, and such a road as it was, we soon came to the conclusion that it wasn't any road at all but just a couple of old cow trails that Mr. Fuqua had mistaken for a road. But when we reached our destination, Oh, Boy, it was worth all the jolts and knocks and bumps we'd gotten coming over the so-called "cow trails."

Fifteen minutes out of Roundup and in a little valley with pine-covered hills on every side. With plenty of wood lying around a fire was easily started and the coffee put on to boil and such delicious coffee as it proved to

be, or was it because we were so hungry? The secret of making such good coffee, according to Mr. Fuqua, is to tie the coffee up in a cloth which Mrs. Kibble, our chief operator, had used to dust the switch board with for two weeks.

Then a walk to get up an appetite, not that any of us needed to, climbing one hill only to find a more fascinating one just beyond. "Eats" ready at last. Did we eat? Oh no, not at all, we were only starved. "Eat, drink and be merry, for tomorrow ye diet." "Eats" over we moved the fire over in the shelter of a big rock, spread blankets on the ground and roasted marshmallows. Suddenly, a flash of light and a loud rumble. It was going to rain and we had to get to the main road before it did or we'd never get out of our little valley. A wild scramble for the cars and we were on our way home. Even if somewhat abruptly ended all agree it was the "end of a perfect day."

# Making the Telephone Voice

By Betty Devine

**M**YRTLE REED refers to a feminine character in one of her books as having a voice "like a catbird in an orchard."

A loud, rasping voice in a woman is nothing short of a calamity. One of the best friends I have in the world has a voice that simply raises one out of one's chair. Then, too, I know a widow of attractive personality, a certain charm and loads of "the root of all evil"—money—who has a voice that needs sandpapering more than anything else I can think of. Fact is, I have often suspected that that voice across the breakfast table 365 days in the year made it a lot easier for her invalid husband to take the final leap into the great unknown.

It always seems so unnecessary too, for while a well-modulated voice cannot be put on as easily as the modern complexion, it certainly can be cultivated.

Apropos of this, I chanced to drop into the school on the eighth floor of the Main building the other morning and for a moment my thoughts were arrested by a humming sound, for all the world like the humming of a swarm of bees. Now there is something very restful about the humming of bees—er—that is, of course, providing one is a safe distance—and just between ourselves I haven't always been that fortunate. This particular morning, however, I forgot my intimate association with bees to the extent of indulging my curiosity through following the sound until I discovered that it came from one of the class rooms, where a group of pupils—beginners in the work—were studying and practicing voice culture.

Ah, ha! thought I; so this is the secret of the "sweet-voiced telephone operators," for one seldom hears an unpleasant voice in an operator.

Explaining to Miss Mollie Hilzer, who was conducting the class in the absence of Miss Frances Tenquist, that I was on the scent of a story for *THE MONITOR*, I was cordially invited to sit down, the which I did, and continued to sit for more than an hour while the girls went through a line of exercises that ought to enable them to do everything from rolling their "R's" to saying "Sister Susie's sewing shirts for soldiers."

Ever try to roll your "R's"? Well, I never realized just how Irish I was until I tried to roll mine. No, it has nothing to do with "rolling your own"—it's a far more difficult feat.

It was the first time I knew that a special course in voice culture is part of the training of an operator, though I had often marveled at the clear enunciation of the girls.

The first thing student operators are taught is the necessity for clear, quiet enunciation.

The feature that always seems to interest visitors to the operating room most is the

quiet manner in which all the girls work, each taking her own calls and repeating numbers in such a soft voice that she in no way interferes with what the girl sitting right alongside her is saying or hearing.

Learning the digits with their proper telephonic pronunciation is the first step the student operator takes after entering the class.

The following list will give some idea of what this means:

"O" to be spoken as "Oh," with long O.

"1" to be spoken as "Wun," strong N.

"2" to be spoken as "Too," with strong T and OO.

"3" to be spoken as "Th-r-ee," with slightly rolling R and long EE.

"4" to be spoken as "Fower," with strong F and long O, and pronounced as two syllables.

"5" to be spoken as "Fi-iv," strong F, long I and strong V.

"6" to be spoken as "Siks," strong S, short I and strong K.

"7" to be spoken as "Sev-ven," as two syllables, with strong S, short E and strong V.

"8" to be spoken as "Ate," with long A and strong T.

"9" to be spoken as "Niyen," one syllable, with strong N on end.

"J" to be spoken as "Jay," strong J.

"R" to be spoken as "Ahr," strong R.

"M" to be spoken as "Em," with short E and strong M.

"W" to be spoken as "Dubhkyoo," with full value given to every syllable.

"F" to be spoken as "Ef," with short E and strong F.

In repeating numbers the girls are taught to pause slightly after the hundredth part of a number, on all numbers except even hundreds or thousands and to use the rising inflection of voice. They are taught the proper position of mouth for the various vowel sounds, as "ah," with the mouth well open.

They repeat the breath consonants to see how well the breath carries sound, as in P, F, T, K, etc., and voice consonants in as soft and sweet a tone of voice as possible. Nasal consonants sounded up in the head, as "M," "N" and "ng," to increase resonance.

Then they go through a series of lip, tongue and jaw exercises designed to make the mouth as flexible as possible, thereby giving far better enunciation. There are lip exercises to develop the muscles of the mouth; tongue exercises, using the tongue against the teeth, and jaw exercises, such as dropping the jaw to say "Ya." A singing exercise, saying in a musical tone of voice "Sing-ing-ing-ing," and holding the "ng" as long as possible, which was what the girls were doing when they first attracted my attention as I entered the school room.

For one hour every morning these exercises are gone through with the following objectives in mind:

A—Improved relations with the public, and also with other members of the operating

force, through use of the gentle, courteous tone of voice, which is the only means by which operators can express to subscribers the "glad to serve" spirit of their work.

B—Increased accuracy and efficiency of operating through improved enunciation, or clearness of speaking, and the resulting elimination of all forms of misunderstanding over the telephone.

C—Greater ease of talking by operators

through using their voices sparingly and quietly and in such a way as to increase the resonance or carrying power.

That the girls appreciate the value of this training is evidenced by the interest they show and the effort they put forth to give the exercises properly.

Shakespeare said, "A soft voice is an excellent thing in a woman," and certainly with present methods being pursued we should find no "catbirds" in our "orchard."



Byron E. Thady, hero of the Pueblo flood, is stepping higher than a stork these days. Read this from the Breckenridge, Colo., *Journal*:

"Mr. and Mrs. Byron E. Thady are rejoicing over the arrival of a little daughter who was born June 29, at Pueblo. Mr. Thady will be pleasantly remembered as the genial manager at the telephone exchange a year ago. The little lady has been named Patricia Jean, and as she brought along a large supply of 'pretty things to wear,' her visit will probably be an extended one."



The American Telephone and Telegraph Company has a larger number of stockholders than any other American corporation. The total number of stockholders at the beginning of the present year was 281,149.



We had two lost time accidents in May. All divisions with the exception of Arizona passed through the month without a lost time accident. This is the sixteenth consecutive month for Idaho, the ninth for New Mexico-El Paso, the sixth for Wyoming and the second for Utah.

Wyoming still holds first place. New Mexico-El Paso retains second place. Idaho remains in third place. Utah advanced from fifth to fourth place. Montana advanced from sixth to fifth place. Colorado advanced from seventh to sixth place.

Installation Department advanced from eighth to seventh place.

Arizona, with two accidents for the month, dropped from fourth to last place.

A brief description of the accidents is as follows:

Employee, while standing at the rear of company truck (that was properly parked) getting some tools, was run into by an automobile and severely injured. The driver of the automobile was an inexperienced driver and lost control of his car.

Employee was coming down pole that was very hard and rather crooked. As he reached the bend in the pole a particularly strong gust of wind struck him and his body was blown to one side of the pole, causing his spur to cut out and let him fall to the ground.

Plant Accidents, June, 1924

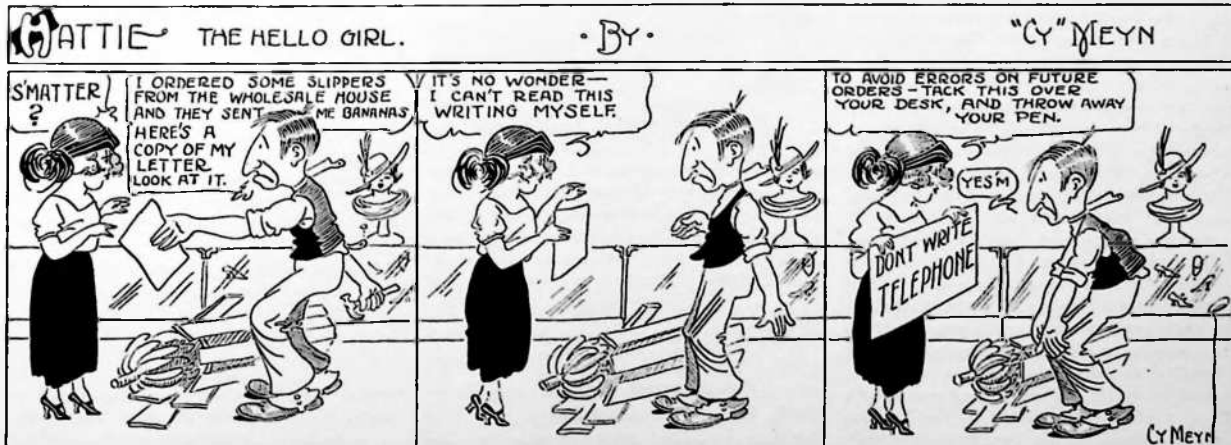
DIVISIONS	Average Number Male Plant Employees	Number of Lost Time Accidents	Lost Time Accidents Per 1,000 Male Plant Employees
Colorado	611	0	.00
Utah	237	0	.00
Montana	210	0	.00
Wyoming	139	0	.00
Installation Department	136	0	.00
New Mexico-El Paso	106	0	.00
Idaho	99	0	.00
Arizona	93	2	21.50
Total	1,631	2	1.22

CLASSIFIED

Run into by automobile..... 1    Spurs cut out..... 1

Comparative standing of divisions first six months 1924, based on number of lost time accidents per 1,000 male plant employees:

Division	Average Number Male Plant Employees 6 Months	Number of Lost Time Accidents	Lost Time Accidents Per 1,000 Male Plant Employees
Wyoming	124	0	.00
New Mexico-El Paso	111	0	.00
Idaho	96	0	.00
Utah	216	2	1.54
Montana	203	2	1.64
Colorado	582	6	1.72
Installation Department	122	2	2.73
Arizona	105	3	4.76
Total	1,559	15	1.60



# How to Sell Toll Service

By Naomi Baker

Salt Lake Long Distance Chief Operator.

**T**HE SUCCESS of a store or of any business engaged in selling a commodity to the public, depends to a great extent upon the volume of its sales. Advertising, of course, plays an important part in bringing the product to the attention of the public, but further patronage depends upon the quality of the product, the good will of the customer, and efficient salesmanship.

We are selling toll service and our success depends upon giving prompt, courteous and efficient service so that the patron will not only be satisfied with the service received, but will offer us new business in the future.

Recording is our "approach" in selling toll service, just as the work of the line operator in completing the call may be considered making the sale. But, aside from giving the patron a favorable impression, efficient recording helps in the completion of a call. An incorrectly recorded call causes waste of circuit and operator's time, annoyance to the subscriber and, frequently, results in a cancelled ticket.

Here is an example of how the use of "Voice Technique" and the quick wit of a line operator saved a call that would have been lost, because of incorrect recording and poor enunciation on the part of the line operator who first worked on the call. A ticket was recorded 431 when it should have been 421. Twice the line operator reported that 431 did not answer. Evidently she failed to enunciate clearly for the calling party did not correct the error. Later, another operator made an attempt on the call, received a "DA" and reported to the calling telephone. She gave the report distinctly and emphasized the number. The subscriber then told her that he had placed the call for 421 but that he could not wait and that he would place another call in the afternoon. This operator remembered that business offices at the place he was calling usually closed on Wednesday afternoon for the ball game. She mentioned this to him and asked him if he would wait just a moment longer while she tried to get 421. She reached the telephone and the call was completed.

Usually when our speed of service is not good, our completion is correspondingly low. To the average subscriber, slow service means poor service. When there is a long interval between the time a call is filed and the time it is reported on, we have a dissatisfied customer, and, furthermore, we run the risk of having the calling party leave the telephone. This is particularly true of calls placed from coin box stations and public offices.

Calls completed on the first use of the toll line are more satisfactory to the patron. If we can complete a call on the first attempt by suggesting an alternate or if we reach the desired party because we remembered to ask the first telephone reached if he could be located elsewhere, we are benefiting everybody

concerned and incidentally, we are making our own work easier later on.

We are getting splendid cooperation from some of the smaller toll centers and tributary offices by letting the operator know whom we are calling rather than just calling the number. Sometimes, she happens to know just where to reach the party we are calling. Recently, a tributary chief operator saved an important call for us in this way.

Occasionally, we receive calls that are of more than ordinary importance to the parties concerned. Our manner of handling such calls influences the patron's attitude toward our company. One of our supervisors handled a call that was a death message from a distant office to a connecting company toll station reached through Salt Lake. The line was not out of order but the toll station did not answer.

After repeated attempts to reach the station, the supervisor recalled that the manager of the connecting company lived in Salt Lake. She reached him and explained the circumstances. He said he was sending a man out on the next train and that he would take the message and have it delivered. The calling party was glad to do this, and the call was completed. The satisfaction of completing calls that mean giving personal service more than repays for the difficulty in handling them.

In our effort to complete our own calls, we should not overlook the fact that other offices are dependent upon us, to a certain extent, for their completion results, just as we are dependent upon other offices for ours. For every call order left at our office there is a corresponding "Out" ticket waiting to be completed at the distant toll center and probably if we all give closer attention to through and terminating traffic, it will result in a better completion percentage for us all and added revenue for our company.

## General Traffic Picnic

By One of 'Em

What was it? Why, a big beefsteak fry, given by the General Traffic on Wednesday, June 18, at Fillius park. All who went agree that it was a huge success. We all got away on time and the trip was fine until we were almost there, when Miss Cunningham's "packard" started to act up, but it was only a puncture which was fixed in a short time with the able assistance of Bob Beveridge.



About this time we realized that some of the refreshments had been forgotten, but what is a picnic if you don't forget something! Not to be daunted by such trifles, efforts were made to secure said eats and also to get the picnic started. Finally a fire was built and ready hands got water for coffee which was soon boiling and the steak sizzling. A baseball game was staged by Messrs. Hill, Beveridge, Lee, Taber, Garretson, Hackstaff and Misses Parks, Robinson and Winterer.

That's all right, Hinshaw, about stealing

bases, but wear glasses after this, and remember that was a baseball game and not a football game. A small thing like losing the ball or being hit on the head by a ball bat didn't mean much to some of the participants.

After "dinner was over" and the paper plates cremated toy whistles and paper caps were brought out and then the fun began. Then, later, we all scurried off to Berggen park where there was a fine platform for dancing. And, say, we all drew a lollypop. Three cheers for the foreman—he knows the best flavors and the kind that lasts the longest.

It was a very delightful outing and everybody enjoyed it to the fullest measure.

### An Earnest Compliment

Editor Monitor:—Please permit me to compliment you and your force on the July issue of THE MONITOR. I think it one of the best numbers I ever read. I am a Plant employe of the Chesapeake and Potomac Telephone company, in Tucson, Arizona, for my health. I receive our magazine, *The Transmitter*, which I trade with the local boys for THE MONITOR. In that way we enjoy both magazines.

Wishing you much success, I am

Yours truly,

C. C. RAND.  
Tucson, Arizona.

New York City has more telephones than Berlin, London, Paris, Liverpool, Rome, Antwerp, Brussels and Shanghai combined.



## PAGE OF INTERESTING ODDS AND ENDS

## Raton-Trinidad Picnic

Employees of the Raton, N. M., and Trinidad, Colo., exchanges officially opened the summer season with a picnic at a very attractive spot on Raton Pass, more than a mile and a half above sea level. Plenty of good things to eat were brought along, a good rousing fire was built and the aroma of roasting hot coffee filled the air, for even summer nights are cold in these high altitudes. There was plenty of good fellowship around the fire, and after eating, the party engaged in story-telling and singing songs until they were driven home by one of those storms which suddenly break in the mountains.

Those present were Opal McMEn, Edna Thomas, Nola Davis, Frances Conwell, Marion Ladell, Jewell Vincent, Willobee Hix, Opal Vandevere, Elsa Harmon, Margaret Wilson, Mattie Thompson, Edith Hall, Marie Walters, Mellie Caudle, Dorothy Thompson, Nelle Barnard; Messrs. Lewis, Reed, Avis, Flannery, Revel, Hutchings, Klein, McAulley, Granberg; Mr. and Mrs. Lewis, Mr. and Mrs. Richard, Mr. and Mrs. Reitz, Mr. and Mrs. Keleher, Mr. and Mrs. Thaddy, Mr. and Mrs. Alvey and Mr. and Mrs. Dale from Trinidad; Mr. and Mrs. Yates and family, Mr. and Mrs. Haskell and family, Mr. Jack Bourne, Mr. Burton Sinnock, Mrs. Robertson, Beulah Bears, Alice Ashley, Ethel Jones, May Kakara, Blanche Scott, Mary Ann Cleland, Mary Ellen Simmons, Florence Fanning, Minnie Luddeke and Pauline Higgins from Raton; and Mr. J. A. Kelly from El Paso.



## Cheyenne, Wyoming

On June 29, we of the Cheyenne office learned with much regret that Miss Hilda J. Vogeding, a member of the accounting department, had passed away early that morning, after a brief illness, leaving many friends to mourn her loss.

On July 1 there came about several changes in our Cheyenne office. Charles St. John left our congenial family branch here in Cheyenne to become a member of the Denver family, accepting a position as Denver commercial supervisor. We are all sorry to lose Mr. St. John but there is some satisfaction in knowing that he still belongs to the Telephone Family.

Ralph E. Bengston, former local cashier at Cheyenne for the past three years, stepped up into the position as state cashier. We are all with Ralph and wish him success in his new position.

W. G. Baldry has advanced to the position as local cashier and Iver A. Anderson has accepted a position with our company. Welcome to our Telephone Family, Mr. Anderson.



The city of Cleveland has half as many telephones as the whole continent of South America.

## Telegraph Battalion Picnic

On Monday evening, July 14, fifteen of the former members of the 405th Battalion, their wives and friends, met at George Orahood's summer home on Colorow road, Lookout Mountain, for a picnic.

The cottage is located beautifully for such an occasion, near the top of Lookout and overlooking the city of Denver several miles distant.

Vic Maymon, Andy Horan and Frank Kennedy served well in the capacity of kitchen police. A fine fire was started by Major Young and his co-workers, Atwood and Stone, and within half an hour of our arrival we were enjoying a fine supper of weiners and buns, coffee, potato salad, radishes and onions, ice cream and cake.

Vital Coupal and Morton Hayman of Omaha, Nebraska, and Terre Haute, Indiana, respectively, surprised the camp at the last moment, and all were mighty glad to see them. They were the chief "gold-brickers" of the evening—neither could be found at dish-washing time.

After the meal the crowd enjoyed two hours of dancing and returned to Denver.

The 405th Battalion Association hold their meetings the second Monday of each month, and they are very enjoyable occasions. Some former member who has not previously attended the meeting generally shows up, and this makes the meetings especially profitable in renewing old friendships.



The best time to end a quarrel is precisely eight seconds before it begins.



## Darby Hix, El Paso, Texas

Dear Ed:—Well, Ed., it has been some time since you has had anything from my lucid mill, but that is because I has been on my vacation. That is, Ed., I has been away from the office, but Anniebelle is taking my vacation. She went home to see maw. I hope she stays quite awhile, Ed., as it will give me a chance to slip around to the various bathing holes and maybe pick out a few fair charm-ers for Flo Ziegfield. If you thinks we ain't got some prize beauties here, Ed., you should ought to drop down and overlook a few of them. You can't describe 'em on paper, Ed., you has to describe 'em with your hands like a Frenchman or a Jew. Hot Doggie! You know, Ed.

Well Ed., I was due back to the jolly old job today, Friday, the Thirteenth, but was afraid to show as maybe the boss would feel as unlucky as me, and maybe he would can me. But everything was lovely.

Say, Ed., you remember Isiah Scott, our head janitor, who invented the patent dead-rat catcher about a year ago. Well, I thinks

## Boy, Page Jonah!

Manager Forest Neely, at Monte Vista, Colorado, is always fishing around for a bit of news for THE MONITOR readers, and the following newspaper clipping is his latest contribution. We do not know what paper it is from, but as no Osage River flows near Monte Vista, we suspect the story comes from Oklahoma or South Bend, Indiana:

"Last Wednesday morning Bob Dunn and Allie Goff caught such a large catfish on their line in the Osage River at Warsaw that when they hauled it in the boat sank.

"After about two hours' struggle with the fish they finally pulled him out. The fish was placed on exhibition in the court house yard, where great crowds gazed for hours at this demon of the Osage. It was sold to Bert Wright and shipped to Cole Camp.

"We were told that when the fish was cut open there was found a telephone and part of a phonograph record in its stomach.

"The fish weighed 80 pounds."



## El Paso First Aid Again to the Front

The El Paso First Aid Team was invited to give a demonstration before the Rotary Luncheon Club recently. The boys, of course, acquitted themselves in fine style, as they always do. Those participating were R. E. Barnett, J. P. Garland, S. B. Allen, Earl Keagle and J. A. Brooks. J. A. Kelly, state plant superintendent, told the Rotarians how these boys and their fellow workers were standing at the head of all the Mountain territory from Canada to Mexico in accident prevention and that, although their specialty was not accidents, the policy was to be prepared for any emergency.



he is superstitious also. You know, Ed., we has had three little black kittens around the dump. Well the other day one of 'em started actin' kind of peculiar, and this morning she threw a man-sized fit. Mack Chamberlain, who tries to boss Scott, tied her up in a box and handed it to Scott, saying:

"Here, Scott, take this black cat down to the canal and drown it; she's throwing fits."

Well, Ed, you should of ought to have seen Scott. He broke out into a sweat and his eyes popped out and his hair went straight.

"Eh, what's dat?" he queries. "Mr. Chamberlain, you doesn't mean you-all wants me to drown any black cat on Friday, the thirteenth. Now sure 'nuf; does yuh?"

"Why, sure," say Mack. "She's got fits and has to be drowned today."

Well, Scott took the box, but later in the day the policeman on this beat found it in the alley down by the Elk's Club.

Well, Ed, I hope Anniebelle enjoys my vacation.

Lonesomely yours,

DARBY HIX.

# PICTURES BY WIRE.



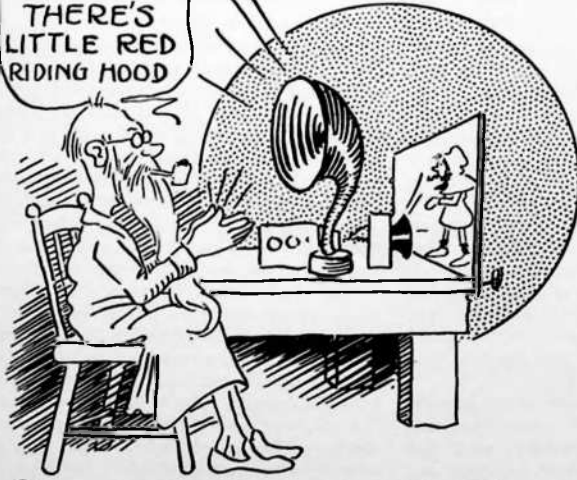
A PICTURE RECENTLY RECEIVED BY THE LONG LINES DEPT.



"LISTENING IN" WILL BE CHANGED TO "LOOKIN' IN" ON A PARTY LINE WHEN SISTER SUE GETS THE PHOTO OF HER NEW SHEIK.....



OH GOODIE THERE'S LITTLE RED RIDING HOOD



PERHAPS LATER ON WE CAN HAVE OUR BEDTIME STORIES ILLUSTRATED.



CROSSED WIRES MAY BRING THIS RESULT.



# THE MOUNTAIN STATES TELEPHONE AND TELEGRAPH COMPANY

GENERAL OFFICE 1421 CHAMPA STREET, DENVER, COLORADO

BEN S. READ  
President

J. E. MACDONALD  
Secretary and  
Treasurer

RODERICK REID  
General Auditor

E. M. BURGESS  
Vice-President

H. E. McAFEE  
Vice-President

MILTON SMITH  
Vice-President and  
General Counsel

J. F. GREENAWALT  
Publicity Manager

G. E. McCARN  
Chief Engineer

R. M. MORRIS  
General Commercial  
Manager

N. O. PIERCE  
General Plant  
Manager

F. P. OGDEN  
General Traffic  
Manager

GEORGE SPALDING  
Tax Commissioner

## Secretary and Financial Department

J. E. MACDONALD  
Secretary and Treasurer

A. R. GROSHEIDER  
Assistant Treasurer

A. E. MIX  
Assistant Secretary and Assistant  
Treasurer

G. MAVOR  
Assistant Secretary

## Accounting Department

RODERICK REID  
General Auditor

H. W. BELLARD  
Chief Accountant

F. H. TAYLOR  
Auditor of Receipts

P. E. REMINGTON  
Auditor of Disbursements

H. E. STUBBS  
Statistician

A. F. HOFFMAN  
Assistant to General Auditor

## State Accounting

R. F. BRINK  
Arizona State Auditor

M. R. CALDWELL  
Colorado Auditor of Receipts

G. E. BERGGREN  
Colorado Auditor of Disbursements

C. H. LYTLE  
Idaho State Auditor

C. J. EATON  
Montana State Auditor

F. W. BOWN  
New Mexico-El Paso State Auditor

A. A. HEDBERG  
Utah State Auditor

R. E. PILLOUD  
Wyoming State Auditor

## Publicity Department

J. F. GREENAWALT  
Publicity Manager

J. E. MOORHEAD  
Assistant Publicity Manager

A. U. MAYFIELD  
Editor "The Monitor"

## Commercial Department

R. M. MORRIS  
General Commercial Manager

R. L. BURGESS  
Commercial Engineer

C. C. JOHNSON  
General Commercial Representative

FRED B. JONES  
General Commercial Supervisor

H. D. McVAY  
Arizona Manager

P. A. HOLLAND  
Colorado Manager

H. R. RISLEY  
Idaho Manager

J. N. WHITTINGHILL  
Montana Manager

C. E. STRATTON  
New Mexico-El Paso Manager

ORSON JOHN HYDE  
Utah Manager

C. L. TITUS  
Wyoming Manager

## Plant Department

N. O. PIERCE  
General Plant Manager

H. W. KLINE  
Supervisor of Methods and Results

E. G. WILSON  
Supervisor of Long Lines

M. C. HENSLEY  
Installation Superintendent

E. J. ANDERSON  
Arizona Plant Superintendent

A. W. YOUNG  
Colorado Plant Superintendent

C. A. SNYDER  
Idaho Plant Superintendent

O. R. NEWMAN  
Montana Plant Superintendent

J. A. KELLY  
New Mexico-El Paso Plant  
Superintendent

C. C. PRATT  
Utah Plant Superintendent

C. C. HARMON  
Wyoming Plant Superintendent

## Traffic Department

F. P. OGDEN  
General Traffic Manager

E. L. KEWLEY  
General Traffic Supervisor

R. J. BEVERIDGE  
General Toll Supervisor

W. C. FALLON  
Arizona Traffic Superintendent

WALDO COCKRELL  
Colorado Traffic Superintendent

R. G. SPORE  
Idaho Traffic Superintendent

J. F. LEONARD  
Montana Traffic Superintendent

M. E. BATES  
New Mexico-El Paso Traffic  
Superintendent

L. O. BINGHAM  
Utah Traffic Superintendent

L. J. MEYER  
Wyoming Traffic Superintendent

## Engineering Department

G. E. McCARN  
Chief Engineer

C. A. CRAPO  
Engineer of Equipment and  
Buildings

MURRAY MacNEILL  
Outside Plant Engineer

A. S. PETERS  
Valuation Engineer

R. B. BONNEY  
Educational Director

## EMPLOYEE'S BENEFIT FUND COMMITTEE

E. M. BURGESS, Chairman.

H. E. McAFEE

F. P. OGDEN

N. O. PIERCE

RODERICK REID, Vice-Chairman

H. T. VAILLE, Secretary

DR. C. B. LYMAN, Medical Director

DR. N. A. THOMPSON, Associate Medical Director



## Darwin Said:

*"Men differ less in capacity than in their determination to use the powers they have."*

**H**AD he lived in this day he could have employed these same words to describe modern business men and their use of the telephone, which is now a tremendous "power" in the business world.

Long Distance makes possible voice-to-voice contact which annihilates space, permits spoken salesmanship to close deals where cold type might fail and brings a

man's customers and prospects as close to him as the instrument on his desk.

Some business men are "determined" to use this telephone "power" to its maximum and through its use are forging ahead to bigger business and larger profits. Others "differing less in capacity" but lacking in "determination" prove how correct the famous old scientist was when he penned these words.

## Bell System

One Policy - One System  
Universal Service



And All Directed Towards  
Better Service

The Mountain States Telephone and Telegraph Co.