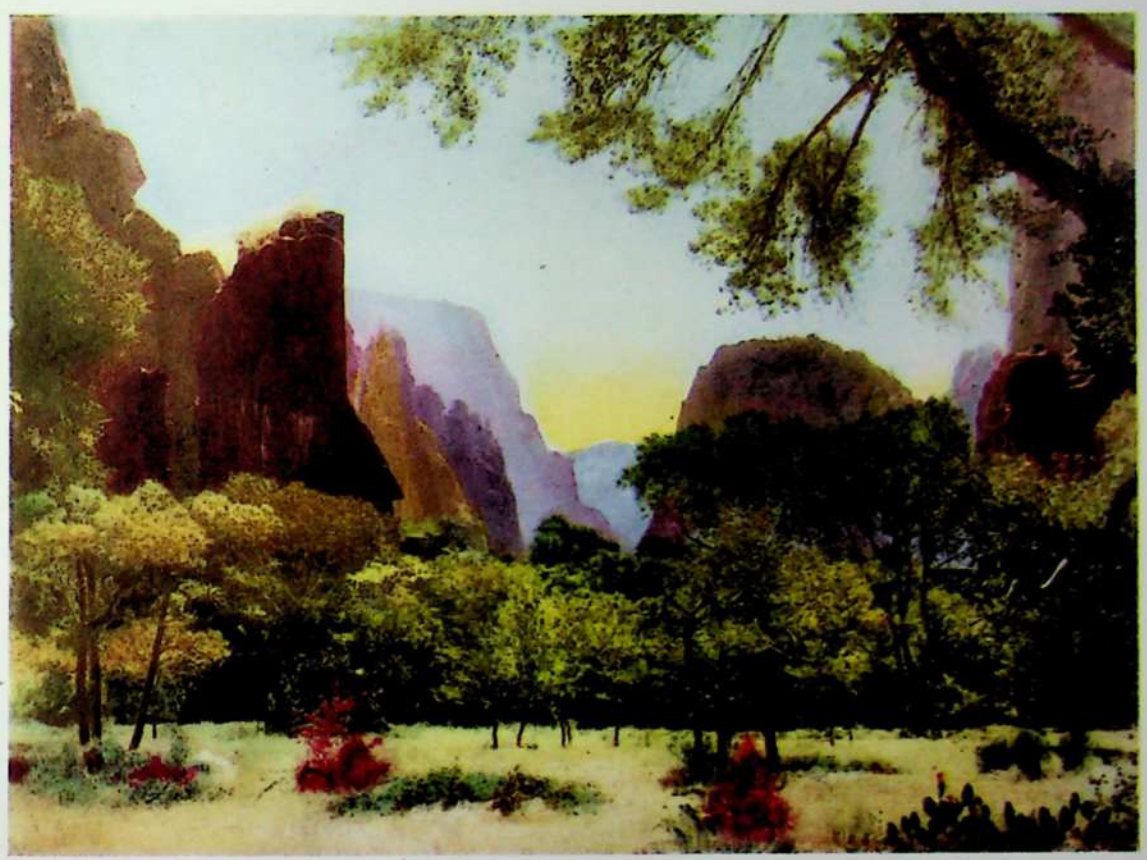


THE Monitor



October
1924

BEVAN BLACK

American Fork Canyon, Utah



CARVED deep by thousands of years of constant wear of a wild stream, and fashioned by the never-ceasing erosion of Time, lies American Fork Canyon, a great gash in the face of the earth that leads into the marvelous Zion Park, Utah.

Out of this Canyon rise giant cliffs thousands of feet above the rushing stream, and the architecture and figuration offer unending variety of scenic effect—grand, inspiring and beyond description.

Walter S. Gifford, executive vice-president of The American Telephone and Telegraph company, New York City, was elected a member of the Board of Directors of The Mountain States Telephone and Telegraph company, September 9, 1924, to fill the vacancy occasioned by the death of Mr. A. V. Hunter.

Mr. Gifford has several times visited Denver and the Mountain States territory, and is personally known to a considerable number of the representative men in our company. His election to the directorate of the company meets with immediate approval and good favor.

Six years ago Mr. Gifford, at the age of 34, became one of the vice-presidents of The American Telephone and Telegraph company, which placed him in charge of what is probably the largest business statistical organization in America. As a man of ideas he was never lacking, and it is told of him that at one time he said to Mr. Theodore N. Vail, "I have an idea but I do not know whether it is original or not," and proceeded to explain it.

"No matter," replied Mr. Vail, "just put that idea on paper and send it to me; I'll claim it myself."

Ideas developed by his department are said to be the talk of Wall Street. Witness the great sales of millions of dollars of A. T. & T. stock with the innovation of not being underwritten.

New York papers told this story not so long ago: "In 1915 two strangers breakfasted together in a New York hotel. One was Howard E. Coffin, world famous engineer; the other W. S. Gifford. The former was to meet John J. Carty, the great engineer of the Bell System, who happened to be away, so Gifford acted as substitute. Over this and following breakfast tables these two men developed



Walter S. Gifford

Recently Elected Member of the Board of Directors
Mountain States Telephone and Telegraph Company

the plan of the greatest national inventory in history. As Supervising Director of the Committee of Industrial Preparedness of the National Consulting Board, Gifford directed the efforts of 30,000 engineers in making a sweeping inventory of American industry which included 27,000 industrial establishments and which laid the foundation for our great war effort."

On account of his success in this preliminary study of what the nation could do, when war came he was naturally selected by President Wilson, to be the director of the Council of National Defense. Being the executive head of the Council during its period of war activity, Mr. Gifford was enabled to perform a notable service in behalf of his country and the allied nations, and at the same time received a valuable experience and became well acquainted with statesmen and industrial leaders.

After the war was over, Mr. Gifford was called back to the American Tele-

phone and Telegraph Company and appointed Comptroller in place of C. G. DuBois, who at that time became President of the Western Electric Company. A year later he was made a vice-president of the company in charge of financing and accounting. He was made a director of American Telephone and Telegraph Company in February, 1922, and for the past year he has been executive vice-president.

Walter S. Gifford was born at Salem, Massachusetts, in 1885. He graduated from Harvard University in 1905 with the degree of Bachelor of Arts.

After graduating he joined the staff of the Western Electric Company at Chicago as a clerk in the payroll department. Later he became assistant secretary and assistant treasurer of the company at New York,

having charge of the accounting in the New York factory and eastern distributing houses.

Mr. Gifford entered the Bell System nearly 20 years ago when he went to work in the offices of the Western Electric company in Chicago, where he gained a valuable experience in accounting and financial matters. In 1908 Mr. Vail brought him into the American Telephone and Telegraph company as Chief Statistician, where he developed the statistical department until it earned a position of authority among American statisticians.

Many Varieties of Job

That the telephone business is a highly specialized industry is shown by the fact that 504 different kinds of employees, ranging from addressograph clerk to yardman, are on the payroll of the Bell system. The list includes such little known titles as block foreman, body builder, chief nickel collector, concreteman, galvanometer man, guardman, manhole stripper, paver and others, along with every well known title from president to operator, and including nine different kinds of foremen.

Glendive, Montana

Something About the "Gate City of Montana," and its Telephone Operations

By J. J. Ermatinger

GLENDIVE is called the "Gate City of Montana" because it is the first community of any size which the westward traveler encounters upon his advent into the Treasure State. Practically from its founding in 1881, it has been a leading railway point and division point of the Northern Pacific Railway, whose steel rails reached the straggling aggregation of huts and tents on the Fourth of July 1881. Old timers in moments of confidence will tell you that they had "some celebration" and express the belief that nowhere

was Independence Day observed with greater enthusiasm.

The city derives its name from Glendive creek, a small stream entering the Yellowstone river a few miles north of the present site of the town. Though still the county seat of Dawson county, it was once the local capital of a domain which included nearly one-quarter of the entire State of Montana, and comprehended as much territory as the states of Massachusetts, Connecticut, Rhode Island, and parts of New Hampshire and Vermont. Daw-



Top—E. E. Stone, manager; Dee A. Patton, wire chief.



Top, left to right—Edna Rogers, Marie Melancy, Elpha M. Baker, C. O.; Kathryn A. Stone, Emilie Rivens, Matilda B. Jensen. Lower left—Marville E. Peterson.

son might well be called the mother of counties, since from erstwhile boundaries have been carved no less than six other similar civic divisions, and parts of counties.

Glendive, now a community of over five thousand souls, is situated on the banks of the Yellowstone river at a point forty-one miles west of the North Dakota state line and about midway between the north and south boundaries of the State. At one time it was one of the largest primary wool markets of the country. But those days are now past and in place of the free open ranges for sheep and cattle are fenced-in ranches for farms. Thus the passing of time has made the city into a center of a rapidly growing agricultural territory raising wheat, flax, oats, and corn and now turning to dairying and general farm diversification.

It will astound most people to learn that Glendive is in the heart of one of the biggest coal fields in the world, but such is the case and we have Uncle Sam's word for it. The U. S. Geological Survey in one of its publications presents maps and statistics to prove this point. Westward of the Missouri River to a point about 200 miles west of the North Dakota State line and south from Canada to the Black Hills is a coal field known as the Ft. Union Region. It contains an estimated coal tonnage equal to one trillion, two hundred odd billions tons of coal. This is lignite coal to be sure, which is the lowest recognized

quality of coal, but in many instances this fuel is equal to bituminous; the farther west one goes from the Missouri river the better and richer grows its quality. This fuel is of a much higher grade than that used in Germany and France and which in the past half century made the former one of the leading industrial nations of the world.

Eastern Montana is also rich in oil and gas. The latter has been piped into Glendive for the past ten years, and while a number of "dry holes" have been sunk in its vicinity, the people of the city are confident that oil will some day be brought to the surface, though they realize that owing to the need for deep and expensive drilling it may be some time before this region is thoroughly tested.

The city is not backward in its endeavor for the improvement of the agricultural territory tributary to it. This year it raised over \$1,500 for prizes for a corn growing contest among the farmers of Dawson county. Each farmer in the contest must plant not less than 20 acres of dent, also exhibit at a local corn show in the fall. This corn promotion was undertaken despite the fact that Dawson county is one of the pioneer corn counties of the State and this year has a corn acreage of better than 60,000 acres. The local businessmen want better corn and more and better home-grown corn seed.

Hog raising also has gone forward by leaps and bounds. Poultry, also, is not very backward. Eastern Montana is especially well adapted for chickens and above all turkeys, which are in great demand and top the market.

Culturally, Glendive stands well in the State which boasts of one of the best school systems

Red Cross chapter, The Glendive Woman's Club, Kiwanis Club, Dawson Post No. 28, American Legion, which claimed the late President Woodrow Wilson as an active member, and the Glendive Chamber of Commerce with a paid secretary and staff, as its community power house.

Because it is the division headquarters of the Yellowstone division of the Northern Pacific Railway, which carries an annual payroll of a million and a half in Glendive alone, this city is rather an impressive railway center. With the completion of tentative plans under way, it bids fair to become one of the leading N. P. Ry. points of its entire system. This com-

tion it can to concerns of this type, because it regards a good, progressive utility as a valuable asset to any community.

Glendive has never had a boom; it wants none. Its guiding spirits want a steady, sound and forward development.

It is a "homey" city which welcomes every stranger for what he is worth as an individual, and character goes farther than wealth. Glendive is not the greatest city but the people who live there like it and become interested co-partners in its upbuilding.

As we advance in life we learn the limits of our abilities.



Public Swimming Pool at Glendive—162 feet across.

pany now maintains shops, engine-houses, store rooms, etc. and all other things which go to make up a modern, high grade railway division point.

Last but not least, Glendive is very proud of its public utilities. It has as modern an electric power plant as there is in the State, and which plans to extend high tension lines to nearby towns both in Montana and North Dakota.

Favorable Comment

Under the caption, "So This Is Missoula," the current issue of THE MONITOR, the mouthpiece of the Mountain States Telephone and Telegraph company, gives this city some favorable publicity. Several photographs of Missoula and vicinity are used in connection with the article which deals in detail with the city and surrounding territory.

Much of the article is given to a description of the city's resources, particular attention being paid to the railways, the lumber industry, and the agricultural possibilities. The State University comes in for its share of publicity.

THE MONITOR is published in Denver, Colo., and has a large circulation among employees of the telephone company. Missoula, therefore, gets much favorable publicity from the story in the current issue.—Missoula, Montana, Missoulian.



Safe Enough

There is an old law on the statute books of Kansas City, it is said, which reads:

"When two cars approach each other at a crossing, they shall both come to a full stop, and neither shall start up until the other has gone."



Das Ban Tuff

Ofer en Yermany ef faller gets nasty vit telephone oprator because hae net get right number right away hae may haf yuse of phone taken away for two day. Ef dere hane rule lak dese en dese country, der hane von faller en dese town vat skall lose yuse of telephone saxty day efry mont.—Craig, Colo., Empire.



Bell Street, Glendive, showing Telephone Building fourth on right-hand side.

in the country. In its school musical organizations, Glendive stands unique. Over 300 school children are members of one of these bodies, senior, junior and beginners school orchestras and the same for the school boys bands.

There are seven churches, and nearly all fraternal organizations are represented by a local lodge. The leading social bodies are the Dawson County Club and the Glendive Golf Club. Its civic organizations are a very active

Its telephone service cannot be beaten and it is happy over the fact that the Mountain States Telephone company has such confidence in this community as to seek the larger and better quarters into which the local exchange has recently moved and installed equipment capable of serving a much larger community. Hopefully it looks forward to the time when the present facilities will prove inadequate. The city generally does all it can to manifest its appreciation and offers all the co-opera-



Over Trails of Bygone Days

In Ye Olden Days

Cheyenne, Wyoming.—In the last MONITOR issue I see you have put up a new office building in Denver. Let your headlights rest on these old prints of the Champa Street exchange. July 27, 1902, just commencing on the steel work. Then see her four stories high completed in 1904. You don't see the Gas and Electric building on 15th and Champa, nor the Foster building on 16th and Champa, and then let your lamps rest on the pride of the Colorado Telephone company.

The Champa Street exchange completed eight stories August 8, 1909. Man, we were so proud of the edifice when it was completed that only the President, the General Managers and their stenographers were allowed to come to work through the front door. An employee's only excuse for a front door entrance was to pay his bill.

Say, I hope she grows so you will have to put on another four just like you did the Champa Street exchange. It makes me feel sad to think of the old Champa Street exchange building being used now by employees to park their lizzies in. As Charlie Crapo said after the state went dry, "Times sure do change things."

Looking back a quarter of a century in Denver and vicinity in the telephone business when you and I were young—Louie O'Brien, Miss Kitty Cobb, Miss Anna Tracy, Betty Devine, Clay Wiswell and many others—we will remember these old stamping grounds where we spent ten to twelve hours a day to build up the Colorado Telephone company; and, say, didn't we have fun!

These old prints will develop a hearty laugh from the bobbed-hair flappers and drug store cowboys of today; but say, old timers, twenty-five years back we were just as happy when we sang "Under the Bamboo Tree," "The Bicycle Built for Two," and "Sweet Adeline." You girls had long hair and unplucked eyebrows, and boys, those tooth pick shoes, mustaches and hair carefully parked on one side or in the middle.

Say, let your lamps rest on these old prints of the operating room, 1447 Lawrence street, Magneto board. Yes, we had electric lights those days, sometimes. Look at the operating chairs built, not for beauty but for their lasting qualities. You don't notice any battleship linoleum on the floors. The floors were stained with linseed oil. Old English was

(Continued to Page 7, Col 1)

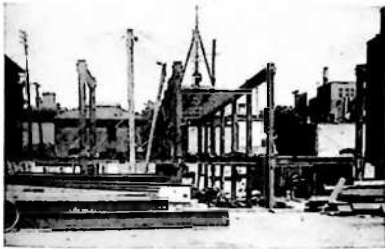
Looking Backward

Looking backward through the years of fads and fashions on a retrospective view of the wearing apparel of milady, Miss Beulah Black. THE MONITOR artist, has dipped her pen into the inky mist of bygone days and here presents vivid pictures of the evolution and revolution of toggery. She calls it "The Clothes Line of History," and then she writes the following for our edification:

"One of the busiest lines on record is history's clothes line; and looking back through the ages, and around the world, one may gain some idea of the various transitions in modes of fashion; and then pause for a moment and compare the past with the combined beauty, simplicity and comfort of the clothes worn today by both men and women.

"Since that memorable day when Ma Eve hauled out her fig leaf from Eden's clothes closet, the problem of dress has annoyed, fascinated, made and destroyed human beings—especially women.

"To begin with, there were those atrocious hoops draped with yards and yards of some fluffy material. Think of going to a switchboard in that attire. And, girls, wouldn't it be awful to have to cover them with gorgette or



Main Telephone Building at 1121 Champa Street, as it looked when the first story was being built, in July, 1902.

used after it was found that the oil soaked the floor and was mopped up by those long dresses of our fair operators.

And can you remember when the old Blake transmitters were discarded and the swinging transmitter replaced them, and you could talk directly into them instead of 17 inches away?

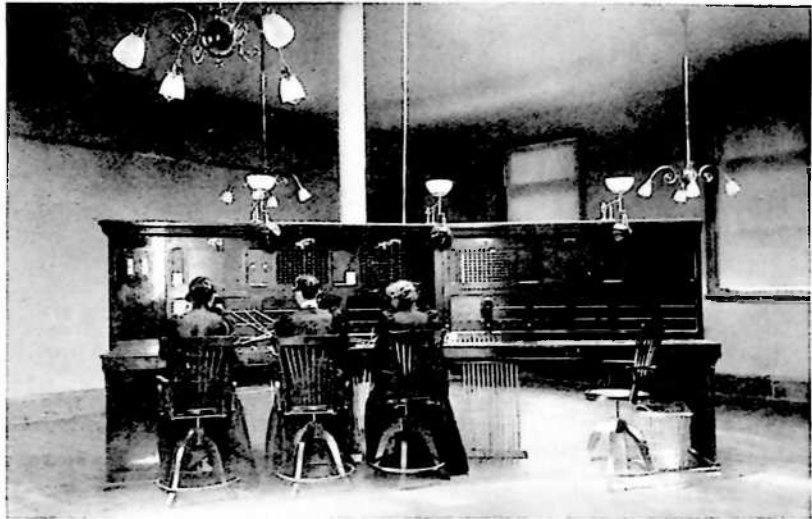


Main building in 1901, when it was but four stories high.

These swinging transmitters in their day were just as wonderful as the breast transmitters are today.



Main building in August, 1909.



Magneto Series Multiple at York Exchange in 1898.

Now look at this one—the York street operating room—Magneto series, multiple 1898. Some change at York since those days. Who are the fair maidens at the board? Enough for this time, cannot look back too long—a quarter of a century is 25 years and life is short.

C. UNCERTAIN.

(From Col. 3, Page 6)

chiffon satin! I'll say they would be highly charged affairs if some of us had to pay for them.

"And those powdered, hot wigs, smothering those ambitious locks struggling to do their stuff, only to be lobbed later on. By the way, who was it two years ago that said the bobbed hair craze would soon die out!

"The demure little English maid in the early days of merrie England would have had a wild time keeping her heavy artificial braids and the

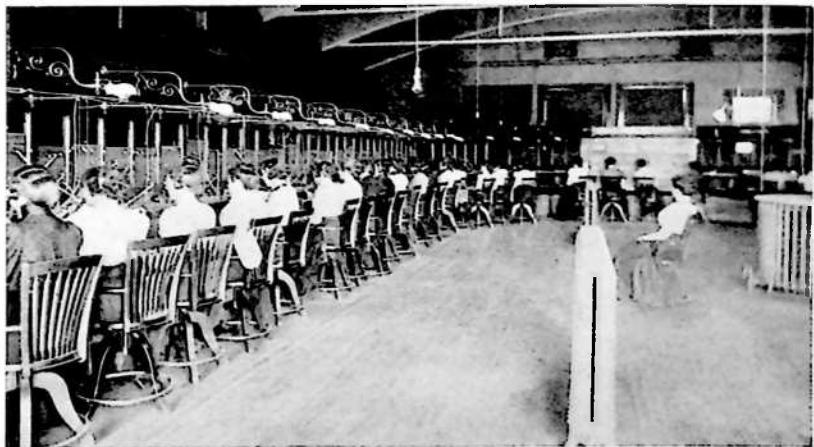
long flowing sleeves from getting wound around the cords at the switchboard while someone was flashing an emergency call, now wouldn't she?

"The gayly colored blouse and white oilcloth boots of our Russian girls may look picturesque, but they also look uncomfortable. And that wee bit o' Scotch, in plaid kilties, looks cute to be sure, but that lets us fat girls out.

"Imagine a few hundred wooden shoes tapping through the halls about noon, when some of us are trying to work, and envy the Holland miss, if you can.

"In China, how those tiny shoes must hurt—another scheme to snatch a poor girl's freedom! In Turkey, too, where no freedom is found, so far as faces are concerned, it is the curtain for them, even now.

"Then, there were the American telephone girls in 1898: small waists still being in vogue, they came near being cloaked to death. They



Magneto Series Multiple Switchboard, Denver Main, 1447 Lawrence Street, in 1900.

Picnic in "Dead Man" and "Lost Horse" Gulch

By Alberta M. Radford

On Friday, August 15, the Helena Office force, consisting of about forty-five persons went on a mountain picnic.

Six touring cars and two large trucks were used as a means of conveyance. Friday morning each person came to the office dressed in outing clothes. At eleven o'clock work was stopped and everyone found places in the cars they were assigned to, each having previously drawn a number to ascertain just where they were going to ride.

Friday was a very beautiful day so the ride of approximately thirty-five miles was not only greatly enjoyed by all but was a means of producing a keen appetite for everyone. Upon arriving at our destination, which was Day's Cabin, Mr. Eaton donned a white apron, rolled up his sleeves and proceeded to show the crowd what a good cook he is and everyone on the picnic will vouch for him now.

During the picnic someone noticed the absence of William Reineman who in his Ford car had started from Helena in due time. As time went on some became alarmed at his failure to appear on the scene, but just as it was decided to combine forces and go in search of him, who should appear around the bend but Bill himself, in command at the wheel and upon being informed as to the cause of the delay, which was only a blow-out, everyone

also wore great heavy pocketbooks hooked to their belts, and big round watches hanging on for dear life to a fleur-de-lis pin or a fat gold lover's knot.

"There are others too numerous to mention, all lovely perhaps in their day, but look them over, girls, and see if you'd care to change places with any of them. As the working girls of today outnumber the leisure class, the tele-



Supervisor looking for a toll ticket.



quieted down and happiness reigned supreme.

After the consumption of sufficient bodily sustenance and everyone had completely recovered from the fear that Bill's non-appearance had caused, sides were chosen and a fast game of ball played which lasted possibly an hour and proved very exciting as well as interesting, judging from the line of spectators on the fence and the cheering that was done.

Later Miss McCormick led an expedition in search of the "mysterious Dead Man," while Miss Jo Day took a party in the Company Dodge and went in search of the "Lost Horse." However, this did not prove sufficiently exciting for some, so a water fight was started which resulted in a good soaking for most of those implicated. Several attempts were made to put Mr. Eaton and Mr. Neff in the creek

but to no avail and those who tried it in most cases got the worst of it.

During the course of the afternoon Mr. Morrison went fishing and got twenty-four; Mr. Reineman also went fishing and got back. Some of the men played horseshoes and some of the less ambitious ones sat on the fence and told them how to do it.

At 6:30 thoughts began to turn homeward, everyone being thoroughly tired but happy. Much credit is due Mrs. Day who so kindly extended her hospitality as well as her assistance in the preparation of the picnic. Everybody had a fine time and many appreciations of the trip were expressed.

phone girls especially, who might be called international girls, they are the ones who should supervise the designs of the next dress to be hung on the line, and not the few men—can you beat it?—who have dictated heretofore.

"Incidentally let us note the simplicity of our 'Number, Please,' as compared to the answers of other operators in other lands. Also note the following answers by persons who

"In England it is: 'Are you there?'

"In France: 'Allo.'

"In Japan: 'Moshi Moshi.'

"In Spain: 'Oiga,' meaning 'I hear.'

"In Italy: 'Pronto.'

"In Sweden: 'Hallo.'

"In America, Germany, Switzerland and several other countries, the person answering the ring simply says: 'Mr. —,' giving his name."



Taking No Chances

I'm going to have this tooth out tomorrow.

Are you going to have gas?

I should say. You don't see me sitting in the dark with any dentist.



On the fence, Mae McCormick; center, top to bottom, Barbara Tibbets, Emma Latch, Mary Wible; lower, Mildred Day.



Left—When fire started; Thousands of people rushing from grandstand; After stand is emptied

Loud Speaker at a Fire

The first emergency test ever made of a Bell Loud Speaker in time of impending danger to life and property is recorded at Salt Lake City, Utah, when fire broke out in a grandstand packed with human beings, at the fall rodeo festivities this year. Thousands of people were packed in the grandstand intently watching the wild west demonstrations in the arena when someone yelled "Fire!"

Immediately there was a stampede for the ground—women were excited, children frantic and men clamoring with the others to get away from the lapping flames. All notice of the wild pranks of the buckaroo in the arena was abandoned, and the program ceased.

Nearby the Telephone company had installed a Bell Loud Speaker for use of the announcers. No sooner had the cry of fire gone forth than the man at the little instrument took in the situation at a glance and, through the big horns of the instrument, he began to talk to the crowd and warn people to be calm and all would have plenty of time to get out.

"Be calm, and move toward the north!" came the warning from the loud speaker. "Don't stop to watch the flames. You are blocking someone else from getting away from the heat. Keep moving north—everybody!"

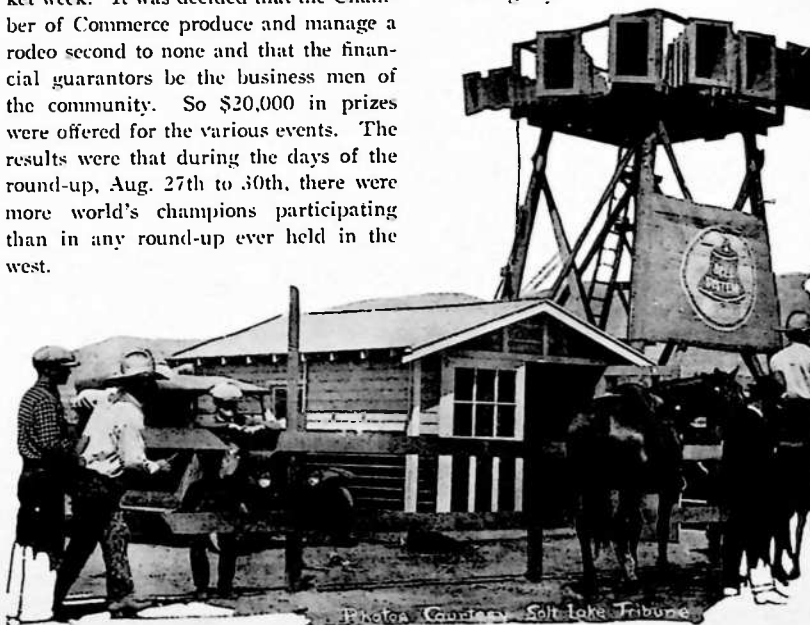
Constantly the man at the horn talked to the crowd, and every word was heard. They obeyed the orders, and there wasn't an accident or a person injured. The loud speaker had done its work, and done it well. No human voice, without the

aid of the amplifier, could have commanded the surging army of excited people. It was marvelous how they obeyed, and the event will go down in history as one of the most remarkable flights from fire on record. A similar coincidence of an amplifier being within serviceable reach at a time when there is a great conflagration may never happen again.

Early in the summer the business men of Salt Lake City, Utah, met with a view of putting on some feature event in August in connection with their annual market week. It was decided that the Chamber of Commerce produce and manage a rodeo second to none and that the financial guarantors be the business men of the community. So \$20,000 in prizes were offered for the various events. The results were that during the days of the round-up, Aug. 27th to 30th, there were more world's champions participating than in any round-up ever held in the west.

One of the biggest single contributions to the success of the occasion was the installation of the Bell Loud Speaker which made possible the distinct hearing of each announcement of the events to the thousands present each day, the average daily attendance being 10,000. One of the interesting features of its use in a novel way was when Chief Red Cloud and Chief Strong Talk greeted their tribe of Sioux Indians assembled in the grandstand from the center of the field.

The event was a complete success and some writers might say "it ended in a blaze of glory."



Photos Courtesy Salt Lake Tribune



Top—Some of the Construction Gang in front of the old Mission. Lower left—Lineman up a California red cedar sawed pole 16 years old; Colorado River at Yuma, where "Foot and Mouth" victims were held up waiting fumigation. Lower, left to right—Jim Cameron, manager; Jack Robinson, local; Joe Brackett, William Verdick, installation foreman; Mr. Irwin, outside troubleman; Mr. McIntyre, toll testboard man; Don Light, power man. Lower right—Joe Brackett in flower garden beside the wall of the San Xavier Mission, Tucson, Arizona.



Building the Transcontinental

How the Big Long Lines Were Strung Across the Deserts, Tying Prosperous Towns Together

The new Southern Transcontinental Telephone and Telegraph route was created to handle the increase in transcontinental traffic and to make available circuits that could be used as an emergency routing of the Central Transcontinental lines.

The new facilities provide a through circuit from Chicago to Los Angeles via Denver and El Paso, a circuit from Denver to El Paso and one from El Paso to Los Angeles. The two latter circuits are connected together at El Paso at night and joined to a Chicago circuit at Denver to create a second Chicago-Los Angeles circuit. The phantom is used in the Mountain States territory as a way circuit.

The Southern Transcontinental was first

placed in service on a temporary basis to handle the heavy volume of telephone business during the Christmas holidays. To meet this date the work was rushed and while the testing was under way, that equipment urgently needed that could not be expressed, was transferred between stations with the assistance of porters on Pullman trains who delivered the equipment to waiting men at all hours of night.

The engineering of station equipment was handled by M. B. Jones, D. S. Barcus, E. W. Drew, P. K. Seyler, E. B. Walter, and W. Large of Equipment Engineering Department.

Work of installing equipment was performed under foremen J. E. Brookins, P. B. Russell, W. E. Verdick, F. L. Reitz, J. M. Allen and E.

D. Slyder of Installation Department

Mr. H. C. (Clay) Sexton of American Company, together with M. B. Jones, E. G. Wilson, Supervisor of Long Lines; J. H. Albert, Colorado Toll Wire Chief; J. H. Carr, Toll Wire Chief for New Mexico and El Paso; and C. L. Hurt, Toll Wire Chief for Arizona, carried on all testing.

The new Chicago-Los Angeles circuit has an approximate length of 2,890 miles and requires twelve through-line telephone repeaters. Figure 1 shows the stations along the route.

The total approximate cost of equipment installed at stations in Mountain States territory is \$185,000.

A typical repeater station is that at Yuma,

Arizona, shown in Figure 2.

Units 1 are Carrier Telegraph Repeaters, each unit designed to amplify 10 telegraph channels both east and west.

Unit 2 is Carrier Telegraph Repeater Testing Unit.

Units 3 are No. 1 jack panels through which all lines are wired providing arrangement for patching and testing.

Unit 4, Wire Chief's Desk for testing both local and toll lines.

Unit 5 is toll test relay rack, fuse and lamp panel. The 156-B interrupter used for ringing on toll lines is seen at the very bottom of rack.

Units 6 are modified through line telephone repeaters.

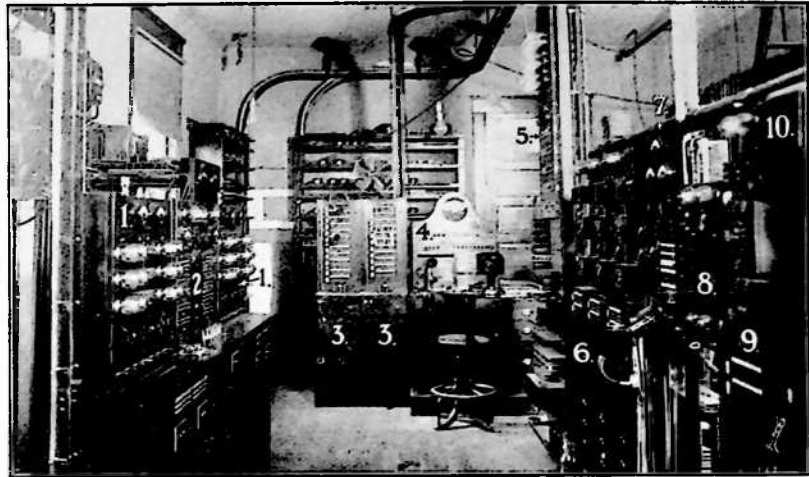
Unit 7 is telephone repeater testing unit.

Unit 8 repeater gain set and associated equipment for measuring gain of repeaters.

Unit 9 is regular through line telephone repeater.

Unit 10 standard cord circuit type telephone repeater.

A new type of signaling, which employs 1,000



Toll Terminal Room, Yuma, Arizona.

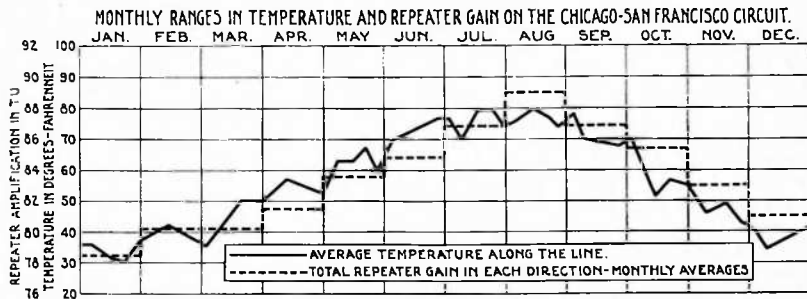
the entirety making an ideal arrangement for use on standard relay racks.

A vacuum tube is used in the receiving circuit to detect the incoming 1,000 cycle ringing current and a polar relay provided to operate on the current obtained from the detector tube.

The system employing 135 cycle current alternately relayed and amplified at repeater points is also installed on these circuits and will be retained for emergency use to permit temporary changes in circuit layout.

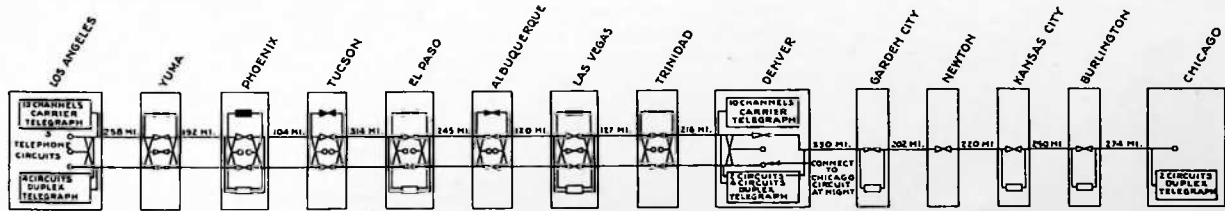
As the relays at each relayed repeater station require a certain operating time, the length of time the ringing current is applied to the line may decrease with each repeater station. It is probable, therefore, that on a short ring insufficient current will reach the distant end to operate the line signal.

Where a great number of through line repeaters are required (as on this circuit) the

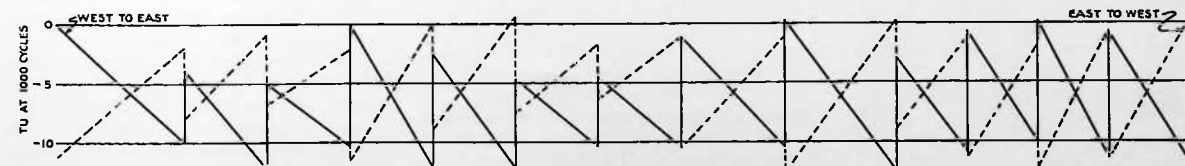


cycle current interrupted 20 times per second, is in use on the new circuits. With this new type ringer no ringing apparatus is required at intermediate points, the repeaters themselves

All component parts of one ringer are mounted in a single panel. The associated equipment necessary for patching, testing and adjusting the ringers is also mounted on panels.



SCHEMATIC CIRCUIT DIAGRAM



TRANSMISSION LEVEL DIAGRAM CHICAGO-LOS ANGELES CIRCUIT.

amplifying the ringing current the same as the voice. This ringer will operate over any circuit whose equivalent at 1,000 cycles is not greater than 24 TU (24 miles).

- VOICE FREQUENCY TELEPHONE REPEATER
- DUPLEX TELEGRAPH REPEATERS
- CARRIER TELEGRAPH REPEATERS
- CARRIER TRANSFER SET
- VOICE FREQUENCY TELEPHONE TERMINAL

FIG. 1

They Always Stick



"When a man bites a dog —
That's news."



THE story was that two girls, each about twenty years of age, remained at their posts of duty in the Nixonville telephone exchange until the building collapsed under the pounding of a flood. By telephoning to every farmhouse and cross roads community in the valley they saved about twelve hundred lives; also a considerable amount of property. Both girls had previously experienced floods in that valley so they knew, when they determined to remain as long as the wires were open, that they were risking their lives. By the time the last wire was dead they couldn't leave. The water was too deep. Before the building went down, however, they took four doors off their hinges, fastened them together with wire, and were whirled away on this raft to comparative safety among the overhanging branches of a tree. There they were rescued several hours later.

On the following day a young reporter, representing the morning newspaper of a city

By Chester T. Crowell, in *The New Republic*

about two hundred miles distant, got the story in detail and—as he would have said—hung it on the wire. It would have filled about one column. The story, as it appeared, follows:

"There was no loss of life at Cartersville, Landers City, Polktown, Hendersonville, Valley View, or intervening points, warning having been received in time. At Nixonville, Watson's Drug Store, above which is the telephone exchange, went down when a cotton shed floated against it. No lives lost."

The story of the two telephone girls had to be cut that day because there was more pressing news. Sixty-eight persons drowned in the flood elsewhere had been identified. Communication with several towns was still cut off, and a river ordinarily about one

hundred yards wide was roaring toward salt water anywhere from ten to forty miles wide. The first news would necessarily relate to the various fates of whole communities—also lists of the dead. Heroes and heroines could wait. This was the view of the news editor, and his opinion prevailed. The young reporter made inquiry about his story on returning to the office, and listened with interest to the explanation; he was still learning the business. Then he cached a carbon copy of his story in the top drawer of his desk and went forth after more flood news. It was not difficult to find; he was busy for a week.

When the floods of water and news had subsided so that the farms and front pages were again rather dry he spread before the city editor four sheets of carbon paper and said:

"Perkins couldn't use this when I wired it in but no one has printed it. I think it's still a good story. If you wish I'll rewrite it."

The young reporter had seen those two telephone girls while their clothes were still wet, and hanging on the wash lines in their several back yards. When he interviewed them they were in bed digesting heavy doses of quinine. He couldn't free his mind of a sense of responsibility; their adventure impressed him as news. The city editor had formerly edited a newspaper right in the flood district. After reading the four sheets of carbon copy the city editor said:

"No, I don't see much to this. The telephone girls always stick. If we printed this we'd get a dozen more like it. You might take it up with the Sunday editor and write a feature story about it some day."

So the four sheets of carbon paper were again cached in the top drawer and the young reporter went out to cover a murder trial.

At the end of ten days he had more or less forgotten the telephone girls but the Sunday editor summoned him and said:

"I'm using a page feature about the men who went out in boats and rescued people from trees during the flood. If you have anything along that line I could use it."

The young reporter furnished two para-

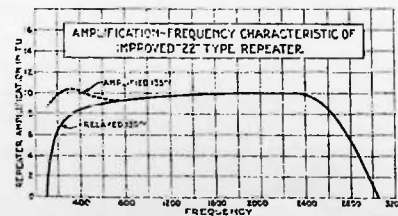
time lag of the ring is reduced by employing a scheme of amplified and relayed ringing at alternate repeater points.



Left to right—L. P. Allen, assistant equipment engineer; M. C. Hensley, installation superintendent; M. B. Jones, equipment engineering department, and E. G. Wilson, supervisor of long lines. A vain endeavor to make the Installation Head concede to an early completion date.

Copper line wire, 165 mils in diameter affording great mechanical strength as well as low transmission loss, was provided.

The entire pole line was gone over, new stretches added and considerable pole replacement work was done. Where excessive exposure to light and power circuits was encountered, rerouting was considered.



The pole line reconstruction was handled jointly by the American Company and the Mountain States company.



"Father," asked the young son, who was trying to make out an English lesson, "what is an idiom?"

"An idiom, my boy, is a woman idiot."

STOCK SALE WINNERS IN AUGUST

Miss Mayme Sullivan, general cashier of the Mountain States Telephone and Telegraph company, is the champion A. T. and T. stock saleswoman for August.

Starting as a clerk in the office of the paymaster of the Colorado Telephone company. Miss Sullivan has stepped along and upward to her present responsible position. With the interest of our company and the A. T. and T. always at heart, she misses no occasion to assist in whatever way she is able in the advancement of either company. A pleasing personality helps her to make friends for "Mother Bell," and she takes delight in doing so. Combined with geniality is a strong character and the business ability that have gained for her the trust and confidence necessary in the position which she holds.

W. A. Connally, manager at Billings, Montana, holds the record for A. T. & T. stock sales for August. Mr. Connally has been in the service since June 27, 1923. His friends say his ability to sell stock is due to the fact that he kissed the Blarney Stone in his early



W. A. Connally, Manager at Billings.



Miss Mayme Sullivan, General Cashier.
—Photo by Orpheum Studio.

graphs, then seized the opportunity to offer his treasured carbon copy. The Sunday editor glanced at the pages, returned them, and said:

"If you can get their pictures."

At first the pictures couldn't be obtained; the young ladies had none to spare; moreover they were fearful lest Nixonville laugh. One couldn't be sure what a newspaper might say. Later they sent snapshots of two groups of young men and women. Arrows indicated which were the heroines. Meanwhile one of the men who went out in boats had been nominated for a hero medal. But for that fact the young reporter might not have bothered to write his story. He hadn't thought of medals; now, however, he coveted a brace of them for the telephone girls.

Five days after the story of the telephone



girls had been placed upon the Sunday editor's desk the young reporter was summoned by the managing editor and the following conversation took place:

"Did you write this?"

"Yes, sir."

"Do you know Charlie Abbott?"

"Yes, sir. I think he's press agent for the telephone company."

"Does he know you wrote this?"

"No, sir."

"That's all."

"Aren't you going to use it?"

"Not now. Maybe some time later."

"If you don't mind my asking, what's the telephone company got to do with it?"

"There's some legislation pending and I thought they might be trying to put over a little sob stuff."

"Oh. I hadn't thought of that."

"It's all right, young man. We may use it some time later but not now."

"Yes, sir."

Two months later the Sunday editor said to the young reporter in answer to inquiry:

"I threw it away. That's stale stuff now. Anyway, Perkins tells me the girls always stick. Well, if they do it isn't news. You know the old rule: If a dog bites a man it isn't news; if a man bites a dog it's big news."

The young reporter said: "Yes, sir," but it wasn't entirely clear to him.

Later when he had become a staff correspondent at the state capital—and mildly important to lobbyists—he dined one evening with one of the numerous vice-presidents of

youth. Billy is a first-class salesman and an all 'round good fellow.

The following table shows the results of the stock sales campaign per 1,000 owned stations in our company for the period from January 1 to September 1. These percentages are based on the number of applications.

Wyoming	8.04
Arizona	7.82
Utah	6.45
New Mexico-Texas.....	6.22
Colorado	5.85
Montana	5.55
Idaho	4.82
Company	6.12

the telephone company and told him about the two telephone girls at Nixonville. The vice-president was not quite bored but he evidently had heard more thrilling stories.

"They always do that," was his comment.

"Do you ever print anything in the house organ about such happenings?"

"Sometimes."

"I'd like to write that story for you."

The vice-president's eyes narrowed ever so slightly. Was the young man looking for something? Eyes often narrow in just that way at the seats of government. The young staff correspondent felt embarrassed and changed the subject, nor did he ever mention it again.

The story has an epilogue—if you care for it. Both of the telephone girls married heroes. Mabel is now the wife of a young farmer who received a medal for rescuing three persons from a tree. Mary, the other telephone girl, is the wife of a young man who was deco-



Hood's Canal; Sunrise at Seabeck; Olympic Mountains.

Checking Up on a Happy Trip

MISS Bertha Naylor, night toll operator at Boise, Idaho, accompanied by her mother and eight young ladies of Boise formed an auto party to Seabeck, Washington, where they attended the Y. W. C. A. conference.

Others in the party were Misses Marion Craig, Ruth Abell, Helen Flack, Hazel Webb, Frances Goodwin, Celia Shull, Emma Hill and Edna Squier. Miss Naylor tells the following interesting story:

Leaving Boise with one foot on the gas we drove down through the beautiful Boise valley following the many ribbons of telephone wires and the Orange Trail until we stopped at Baker, Oregon, for the night.

Leaving Baker at 7:30 in the morning of June 22, we drove leisurely over the Blue Mountains, following the Orange Trail through La Grande and Pendleton, arriving at The Dalles about 9 p. m. We decided to remain there until morning in order to enjoy the scenery along the famous Columbia river highway to Portland. This highway is not excelled in grandeur by any other paved highway of its length in the world. Lined with immense pine and fir trees on either side, ferns and many wild plants growing in luxurious profusion and looking out on the everchanging panorama of the Columbia, it is worth any one's time to take the trip.

Portland was reached in the late afternoon, as stops were made at several of the nation's famous scenic spots along the way, namely, Multnomah Falls, (called daddy of them all); Bridal Veil Falls, Latourelle Falls, Wan Kee Nah Falls, Crown Point, and many other notable places.

Arriving in Portland we stopped at the Multnomah Hotel. At 7:30 a. m., June 23, we

rated for killing eight Germans. They are very proud of their husbands. Not every soldier is decorated; nor did every farmer in the flood district risk his life during that tragic week.

As for the telephone girls, they always stick

left the hotel and when we came to the outskirts of the city we came to a toll bridge crossing the Columbia river. We were then in Vancouver, Washington. Following the paved highway we reached Olympia in time for luncheon, and at 3:30 p. m. arrived in Seattle, going to the Y. W. C. A., where we had previously reserved rooms.

Cleaning up a bit and with a pat on each side of the nose with a powder puff and a "Do I look all right?" we were whisked away to Miss Craig's home for one of those wonderful dinners which you often hear about but seldom have the pleasure of participating in.

After dinner we all felt too lazy to exert ourselves, but there were so many things to



be seen. Sunken Gardens Park, with thousands of beautiful flowers, pools with gold fish and many other beautiful things. We had to hurry and climb up in a tower to see the sun set in the ocean. This was a wonderful sight to most of us, this being our first experience with sunsets on the ocean.

Next morning found us at the dock inspecting the S. S. President McKinley, loaded with her human freight, bound for Hong Kong. This was one of our biggest thrills, as it was the first ocean liner we had ever seen.

We then went over to the University Campus, about 650 acres, and through the different

buildings. By that time some of the girls were crying, "When do we eat?" Lunch over, we all loaded into our cars and drove down to the wharf where we took the ferry. After 30 miles of peaceful riding we landed at Bremerton, the Navy dry dock. We drove from there 20 miles to Seabeck, our first terminus. Arriving at 5:30 p. m. we unloaded our baggage and were ready for supper when the bell rang at 6 p. m.

Then the visiting did commence. One hundred and forty delegates from California, Washington, Montana, Idaho and Oregon filled the dining room. We needed no introductions—everyone just talked and talked until some bunch would get together and start to sing, then the talking would cease until the song was over.

I want to tell you something of what Seabeck looks like, although my vocabulary is too limited to even think of giving you more than a glimpse of this most wonderful place.

Looking out across Puget Sound, with its almost endless miles of waves chasing each other to the shore only to vanish forever, makes one stand in awe and reverence of the wonderful handiwork of God. Facing about one meets those forest giants that have stood through the centuries, breathes the perfume from the wild flowers that grow in profusion, and feels the deathlike silence that is ever present.

I often thought, "What a wonderful place for an inspiration." Seabeck was an old mill site, years ago, but the mill burned and was never rebuilt. The buildings that are left are used by the different societies that hold their conventions here throughout the summer.

There is a little graveyard upon the hill, forgotten and unkept, save for Nature.

The Cathedral of the Pines is another beautiful place where we held a candle service one night. Each one of us carried a candle, marching two by two, lighting our candles from a large one held by the National President of the Y. W. C. A. at the entrance to

Telephone Pioneers of America

Don't forget the convention in Chicago on October 10th and 11th. Any Pioneer who contemplates going and wishes any assistance as to reservations, etc., will have it gladly offered by H. W. Bellard, Secretary, Denver, Colorado, in case any Pioneer has not already cared for through General Secretary Starrett.

The probable program of the convention is as follows:

THURSDAY, OCTOBER 9

Evening.—Registration of Pioneers and other visitors. General "get together" at hotel with music and dancing.

8 P. M.—*General Assembly*. The third meeting of the General Assembly will be held at the headquarters, Edgewater Beach Hotel, on Thursday, Oct. 9, 1924, at 8 p. m. All members of the General Assembly are requested to be present at the roll call.

FRIDAY, OCTOBER 10

10 A. M.—*Annual Meeting*. The eleventh annual meeting of the association will be held at the headquarters, Edgewater Beach Hotel, on Friday, Oct. 10, at 10 a. m. (Speakers to be announced later.)

Afternoon.—In accordance with the wishes of the Pioneers, Friday afternoon has been left open to the Pioneers to follow their own plans and desires.

Evening.—Moving pictures featuring the telephone business, and dancing at the Edgewater Beach Hotel.

SATURDAY, OCTOBER 11

Morning.—The Pioneers will be taken on a visit to the Western Electric company's plant at Hawthorne. Buses will leave Edgewater

the little open spot among the trees. Nearly all the 145 girls were dressed in white, which made a very beautiful and impressive service.

On the afternoon of June 28 our party drove over to Bremerton and were shown through the U. S. S. Nevada, which was docked for



Ferry Running Between Seattle and Bremerton.

forty-five days. This is the oldest battleship in our Navy, and it carries 1500 men, including the marines.

July 5, seven a. m. found us bag and baggage back on the ferry with the compass pointing toward Boise. Landing at Brinnon,



Edgewater Beach Hotel, Chicago, where the Pioneers will meet.

Beach Hotel at 8 A. M. and return from Hawthorne, leaving at 11:45 A. M. The party will be returned to the hotel by way of the business district. Buses will stop to drop members of the party who wish to remain downtown.

Afternoon.—Left open to the Pioneers to follow their own inclinations.

Evening.—An informal entertainment by telephone people under the auspices of Theodore N. Vail Chapter No. 1 will be given at the Edgewater Beach Hotel.

It will be noted that the session of the General Assembly is on the night of the 9th; however, those Pioneers who are there will be entertained at a general get-together and dancing party.

Applications received for membership to Rocky Mountain Chapter No. 8 since last notice are as follows:

we took the Olympia highway to Portland where we spent the night. Leaving Portland about 7 a. m. we made Baker, our next stop, a distance of 350 miles. Nine a. m. July 7 found us leaving Baker on the last lap of our journey. When out about 25 miles we came up just as two autos had collided, turning one of the cars over with a man, his wife and three children underneath. They were all extricated except the wife who was painfully hurt by the car lying across her neck. No one in the party knew what to do as to applying first aid so the only thing we could do was to rush her back to Baker to a hospital. Had the girl employees of our company been given "First Aid" training they probably could have done a great service.

This accident caused us quite a delay. We arrived home at 7 p. m., happy, full of thrills, and the memory of a wonderful vacation. I was back on duty at 10 p. m.

"Hello—Bloomington calling." "Yes, this is Boise." "Andrew Gump calling the Manager."

"One moment, please."

George A. Mavor, Assistant Secretary, Denver, Colorado.—Mr. Mavor entered the service with the Rocky Mountain Bell Telephone company in 1903, coming to Denver at the time of the merger in 1911. He has been in charge of mailing, archives, and matters of that nature ever since coming here, and is at present still in charge of those matters in addition to his other duties as Assistant Secretary.

Wilson Allum, Denver, Colorado.—Engaged in electrolysis survey work. In his more than 22 years of service with the Colorado and the Mountain States companies, Mr. Allum has been engaged in similar work, beginning under Pioneer Jud Stone, in matters pertaining to the underground plant, on May 5, 1902.

Frank L. Holt, Manager, Lander, Wyoming.—Mr. Holt has been owner and manager of quite a few independent and connecting companies, beginning in May, 1899 with the Northern Antelope Telephone company and going through the mill until he recently sold us the plant at Salt Creek, Wyoming, after which he was transferred to Lander as Manager.

LeRoy A. Jones, Assistant Equipment Engineer, Denver, Colorado.—Mr. Jones began with the Wisconsin Telephone company, as a shop worker, June 29, 1903, continuing in the telephone business and coming to The Mountain States Company on January 12, 1918. He is one of the Equipment Engineers in Pioneer Crapo's office.

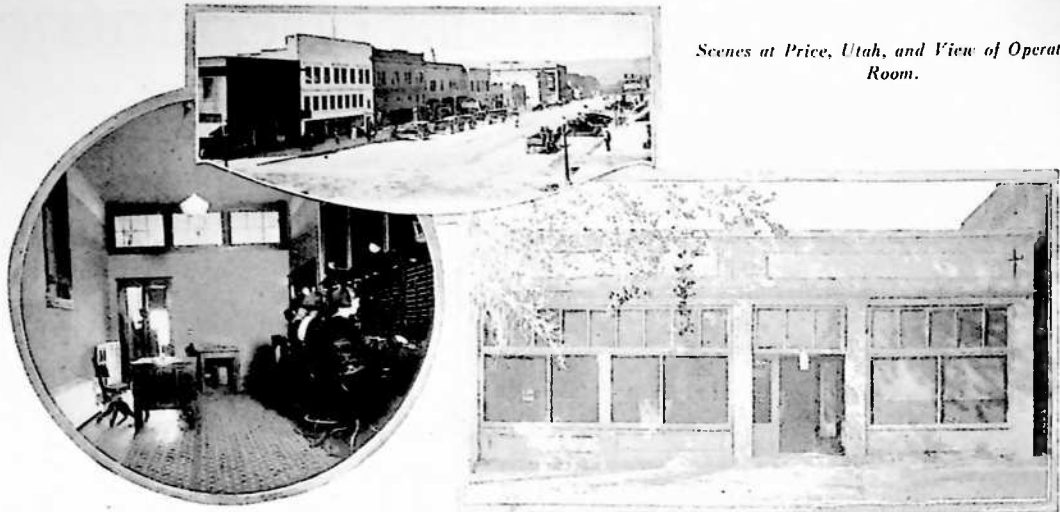


Sidestepping Your Obligations

A little girl had been naughty, and her mother took her by her hand and started with her toward the back door.

"Come, Jennie! You have been very naughty and I'm going to lock you up in the chicken coop."

"All right," she haughtily replied; "you can lock me up in the chicken coop if you want to, but I tell you I ain't going to lay any eggs."



Scenes at Price, Utah, and View of Operating Room.

Welcome--Eastern Utah

AS OF September 1st, 1924, the Mountain States Telephone and Telegraph company took over through purchase the entire plant and business of the Eastern Utah Telephone company.

This purchase added three exchanges to the Mountain States group, namely, Price, with

642 stations; Helper, 304 stations, and Scofield, with 111.

The Eastern Utah company has been one of the most successful telephone companies in the state of Utah. Under the fine supervision of J. Rex Miller, president and manager, the company kept pace with the rapid growth of the territory which they served, and maintained a very high grade of service at all times.

The principal exchange is Price, Utah, which is the county seat of Carbon county. Price has a population of 4,000 people, and is one of the most progressive little cities in Utah. It is the business center of the great Utah coal fields. Within 20 miles of Price are 25 producing coal mines, with a total payroll of \$1,000,000 per month, and an output in 1923 of 4,627,570 tons of coal. Near Price, at Sunnyside, Utah, the Utah Fuel company has the largest beehive coking plant in the United States, consisting of 819 ovens. Coke is supplied from here to most of the smelters in the west.

In addition to the coal industry, Price is surrounded by a large agricultural and stock raising district, which finds a ready market in the nearby coal camps for their products. To the north of Price, at a distance of 40 to 100 miles, is the great Uintah Basin, one of the richest farming districts in the west, still without a railroad. To take care of the rural mail service throughout the vast territory, the United States government has established at Price, the largest automobile rural mail service in America.

At Helper we have a division point of the Denver and Rio Grande Western railroad, with a very large switch yard necessary to take care of the coal business which is consolidated here and taken in long trains drawn by the most modern of engines. Helper is a very busy little place, as it is the trade distributing point



Mr. J. Rex Miller.



Miss Euphae Horsley, Chief Operator.

This is "Some Baby" Says Hansen

By H. F. Hansen, General Foreman

The question of the day was "How much does it weigh?"

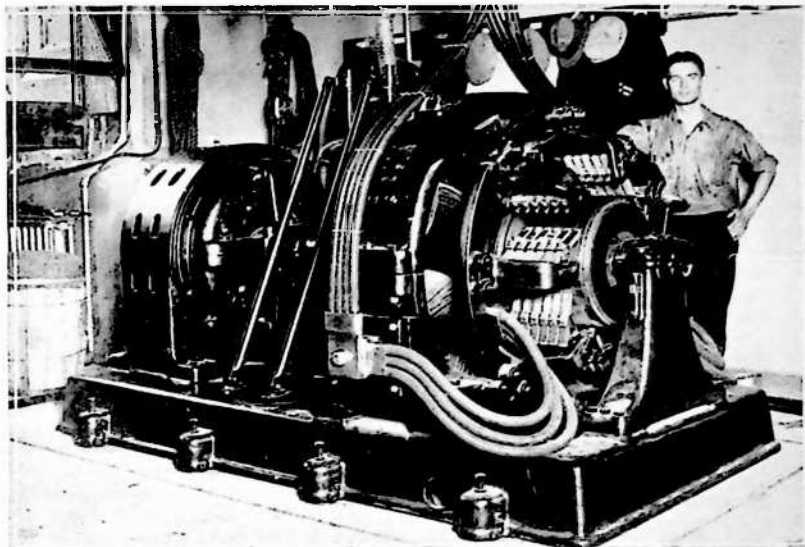
"It" in this case is the new motor generator set which is being installed in connection with the new power plant for Main and Champa offices.

The new generator is of Western Electric company manufacture, weighing seven and one-half tons, having a capacity of fifteen hundred amperes. To drive this generator, a seventy-eight horsepower motor has been provided operating off of the city power of two hundred and

of a large number of coal camps nearby.

Scofield is one of the oldest coal mine towns in Utah, and is very beautifully situated in the mountains, with an extensive farming country surrounding it.

Mr. J. Rex Miller has stayed with us as manager of the group, as has Mr. Arthur Brown, wire chief. They are both real telephone men and proud of their business. The traffic personnel are a mighty fine body of girls, all of whom are well schooled in their work. They are, at Price, Miss Euphae Horsley, chief operator; Fern Bryner, assistant chief operator; Mildred Harris, Rebecca Jensen, Dorothy Curtis, Rachel Onan, Eva Pace, May Emert, Esther Doss and Blanche Bryner. At Helper, Angeline Martinelli, Mary Rolando, Lucy Martinelli and Opal Miller, and at Scofield, Phillis Wallace, Edith Brewer and Velay Bailey.



Motor Generator Charging Unit, weighing seven and a half tons, being installed in the Main Building.

twenty volts, three phase alternating current. This machine is being installed in addition to the present equipment consisting of two, four-hundred ampere motor generator sets and two gas engine driven generators of eight hundred amperes capacity each, making a total capacity of thirty-nine hundred amperes available at one time if all five machines are run in parallel, which is possible.

A new type "H-75" battery is being installed which consists of eleven cells with seventy-five plates per cell. This battery when completed will weigh approximately sixty-six thousand pounds. To support this weight it was necessary to tear up the old floor and construct a special reinforced concrete pier on which the battery sets.

On the completion of this work Main and Champa offices will have the largest power plant of any office within this territory, all charging equipment and storage batteries being centralized on one floor.

The engineers are now trying to decide whether they will provide our friend Jim Hannigan with a pair of stilts or build a platform around the battery so he will be able to read the gravity, take its temperature and feel its pulse.



It Often Becomes Hot Air, Though

While on a recent visit to this country Marshall Foeh made a witty reply to a man who, when one of the guests at a dinner party in Denver, given by a party of Americans, took exception to French politeness.

"There is nothing in it but wind," he said with questionable taste.

"Neither is there anything but wind in a pneumatic tire," retorted the gallant marshal, "yet it eases the jolts along life's highway wonderfully."—The Argonaut.



New Type H-75 Battery, consisting of eleven Cells, eleven Plates each.

A. B. Club Cuts Melons

By Betty Devine

OLD SOL played a "dirty trick"—in the vernacular—on a lot of our A. B. Club members and their families Saturday, the thirteenth, the day the big frolic and watermelon fest was slated to take place in Elitch's Gardens.

He hid out all day long without risking even an eye through the clouds until just about time for the big show to be on, and fearing a storm, many had made other plans by that time and in consequence missed a good party. At that 250 or more of us were on deck and stayed to the finish.

"Rips" Mayfield, the genial president of the A. B. Club, was on hand to welcome the very first arrivals, and incidentally some one asked me that day why they call him "Rips" and fearing they might suspect it had something to do with his wearing apparel I hastened to explain that for several years he edited a feature column in one of the leading daily papers headed "Rips from the Buzz Saw," or some such appropriate title under which he "ripped" off a lot of clever and pertinent stuff, local hits, etc., thereby gaining the sobriquet of "Rips."

Gene Holden, W. T. Lee, Dutch Rominger, H. F. Hansen and other A. B.-ers were on the program and reception committee.

Anyway, "Rips" started things moving promptly at 4:30 o'clock with a pea-nut race, in which the feat was to roll a peanut with the end of a stick a certain distance for which the one who got his or her peanut across the line first was awarded a prize.

This "event" was won by Mrs. W. T. Lee. A neck-tie race was the next stunt: the

gentlemen lined up on one side with their neckties untied and at the word "Go" they ran the length of the course to where a lady was stationed to tie each man's tie and the first man back across the line with his tie properly tied—this being decided by H. E. Stubbs and a very nice lady (modesty forbids my mentioning her name) who had been asked to act as judges—was awarded a prize. "Dutch" Rominger was all dolled up and back across the line before the rest of them had their ties tied: "Dutch" admitted that his speed was due to the skill with which Mrs. L. Ayersman tied his tie.

In a ladies' ball throwing contest Miss Florence H. Barnhardt carried off the honors and later a rolling pin as the prize for this event. Some of us strongly suspected collusion on the part of the married men, in the awarding of this particular prize to an unmarried woman.

Oh, yes, I forgot to mention that Miss Ruth Hartman distinguished herself by throwing a foul ball in this contest—I don't know for sure whether or not they ever found it; the last I saw it was still going backwards.

The Club president was accidentally hit with a ball during this contest—confidentially he told me he wasn't entirely satisfied that it was an accident; and I'm not, either—nope I wasn't THROWING. With the exception of Miss Barnhardt, it was very noticeable that the married women were more expert in throwing than the single girls and it just seemed to be sort o' second nature to some of the married men to dodge, no matter who was "at bat." Someone standing near me commented upon the fact that Mrs. George

Berggren threw exceptionally well for having so recently joined the ranks of the matrons.

A backward race in which Harry Lee was victor and a shoulder to shoulder race won by Miss — Gallagher and Mr. — Eno also furnished a lot of fun for the crowd.

The prizes had been selected with a view to provoking merriment and none failed to get a laugh; for instance Mr. Churchill, noted for his modesty, was handed a horn and told to "blow his own." Just why Mr. Ogden, general traffic manager, was presented with a funnel I haven't yet been able to figure out as the Ogdens live in an apartment.

Mrs. "Dad" Wiswall got a prize for being the best-looking woman at the party and she certainly "lived up to her blue china"

Between the time of awarding prizes and indulging in the watermelon and cantaloupe feast (the latter direct from Rocky Ford through the kindness of our manager, Murray E. Cole) the merrymakers took in the various concessions, rode on the roller coaster, the merry-go-round, the miniature train, etc., the Ogdens, Stubbs and Berggrens showing a preference for the merry-go-round.

Miss Alberta Mayfield and Miss Catherine Anderson, the latter of the General plant department, were the bright splotches of the entire occasion and if you've seen their wonderful hair you'll agree without argument. Of course, if I'm any judge, Miss Anderson seemed to fall pretty hard for one of the company messengers, Rupert Donchue, especially in the shoulder to shoulder race, but none could blame her for that.

Following the supper hour dancing whiled away the remainder of a very pleasant evening, and incidentally this was where the





Kaufman in Western Electric News.

EXCITEMENT FOR A DAY

TO ONE who sees the thousands of women workers pouring into the various government departments in Washington these days, it may seem almost unbelievable that about the time the telephone was invented there were very few women employees in those lines of work. Not long ago a pioneer "treasury girl" in reminiscing on the days when Rutherford B. Hayes was president and John Sherman was her boss in the treasury department, mentioned that her first experience using a telephone and her first view of an Indian came at about the

ever popular Gene Holden and Stanley Percival shone, for they had two of the prettiest girls at the party in tow, Dorothy Suess and Ruth Brinkworth.

But speaking of pretty girls, have you met Mrs. H. F. Hansen? She was there in a nifty tan tweed suit and small black hat—with her three fine kiddies and didn't look a day out of her "teens."

same time, the one preceding the other by a few minutes. But let her tell the story:

"I had the good fortune to know Mrs. Rutherford B. Hayes personally. She was a handsome woman of charming and gracious manners and, notwithstanding that she banished wine from the White House table, she was popular in Washington. That surely was a test in those days, but Mrs. Hayes had the courage of her convictions—and needed it.

"I was a Philadelphian, and Mrs. Hayes had heard me mention that I had never seen an Indian. One day a delegation of the aborigines, all dressed in their best beads and feathers, came to call on the Great White Father. Mrs. Hayes, with her usual thoughtfulness, went to a telephone and called to the Treasury department for me to get excused long enough to come over and see the Indians.

"You may know that during the Hayes administration, the telephone was something altogether new under the sun. People were not yet taking it quite seriously, though everybody

was delighted to have a try at it, and report to their wondering friends that they had talked a distance of so many blocks, and could hear and be heard, and all that sort of thing.

"But the Indians were being taken seriously at that time, as you know from your American history. Feeling, however, that I would probably be safe from being scalped in the White House, I hastened to answer the call, half expecting, of course, to hear wild war whoops emanating from the President's mansion. I was rather surprised to note that everything was quiet along the Potomac. Tremblingly I put out my hand when I was introduced to a big chief. The President, of course, had his interpreter, but I was obliged to go it on my own and a nod and a grunt or two sufficed for conversation.

"But I had talked over the telephone to the charming mistress of the White House, who always made everyone feel entirely at their ease, and I had seen a bunch or a band or portion of a tribe of real live Western Indians, the kind I had read about. That was quite enough honor and excitement for one day for a "treasury girl."



THE MONITOR

DENVER, COLORADO

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

Frederick H. Reid.....President
E. M. Burgess.....Vice-President
H. E. McAfee.....Vice-President
Milton Smith, Vice-Pres. and Gen'l Counsel
J. E. Macdonald.....Secretary-Treasurer
Roderick Reid...V.-Pres. and Gen. Auditor
G. E. McCarn.....Chief Engineer
R. M. Morris...Gen'l Commercial Manager
N. O. Pierce.....General Plant Manager
F. P. Ogden.....General Traffic Manager
J. F. Greenawalt.....Publicity Manager
J. E. Moorhead....Asst. Publicity Manager

A. U. Mayfield.....Editor
Eleanor C. Kilbourn.....Assistant Editor
Beulah Black.....Staff Artist
Betty Devine.....Feature Writer

ASSOCIATE EDITORS

George C. Quillian.....Salt Lake City
E. A. J. Seddon.....El Paso
R. J. Collins.....Helena
Van M. Clark.....Boise
R. F. Brink.....Phoenix
Elva A. McMannis.....Wyoming

Subscription, \$1.50 a year—Free to All Employees

Vol. XIX

No. 10

OCTOBER, 1924.

Our Solemn Obligation

On November 4 of this good year will occur the regular quadrennial meeting of the stockholders of the corporation known as the United States of America. Every reader of THE MONITOR who has attained his majority and complied with the "by-laws" with reference to establishing legal residence, is not only entitled but it is his bounden duty to vote at the stockholders' meeting. It is his duty to share in the responsibility of selecting the officers of the corporation for the ensuing four years.

Citizenship in this country of ours is a priceless possession, but it entails obligations as well as privileges. One such obligation is to exercise the right of franchise to the end that those who are chosen to administer the affairs of government shall represent the will of a majority of the sovereign people.

Four years ago less than half of the qualified electors of the country voted in the general election. Hence those who were chosen to fill office represented the choice of a majority of only a minority of those qualified to vote.

Where the sovereignty of government is vested in the people themselves as is

the case in this country, a government of the people, for the people and by the people, the individual is charged with a solemn and profound duty to record his choice for those who represent him and all the people in the administration of government.

The stockholders' meeting of November 4 is known as the General Election. It will be held in the polling place of your election precinct. It is your duty to attend the meeting and vote according to the dictates of your best judgment, having in mind those high ideals which guided the framers of our constitution upon which are grounded the liberties and privileges with which our citizenship endows us.



An Interesting Publication

(Glasgow Courier, Mont.)

A number of well-known trade periodicals reach the Courier desk in the course of a month, but THE MONITOR published by The Mountain States Telephone and Telegraph company, at Denver, Colorado, in our opinion, stands pre-eminently at the head of the list. The August issue of THE MONITOR is at hand, and for attractive typography, excellent press-work and interesting contents and illustrations, it is a treat for the printer's eye and an admirable example of trade journalism.

While issued primarily in the interests of the telephone company's employees, the contents of THE MONITOR have an unusual interest to others as well. In the current issue among other interesting articles is a short historical sketch of early Montana days, a story concerning the growth of Great Falls by L. E. Jones, secretary of the Great Falls Chamber of Commerce, and an article on safe investments, together with numerous other departments in which the work and recreational activities of the employees are played up attractively.

We imagine that THE MONITOR has had a large part in creating that spirit of loyalty and devotion to duty which everywhere marks the attitude of Mountain States employees. Its excellence as a publication reflects the splendid service that local patrons are receiving from the company's exchange here.

"When It Rains, I'm In"

A little old lady, sweet of face, voice and disposition, yet withal a strong character, became ill in Denver. For many years she had plied a needle, deftly, swiftly, neatly, and ran a sewing machine. And she was wise enough to lay by a portion of her earnings. When her health failed, a friend commiserated with her, as friends will, "but she replied, as cheerfully as possible:

"For years I've saved for the rainy days. They're here now. I believe I shall have enough to see me through, and so I'm not worrying so much as I might under other circumstances."

When fortune smiles we are apt to forget that the fickle dame can frown, just about as easily. And how much better we can bear that frown if we are able to look her squarely in the countenance and say, "Ah, ha, I forestalled you. In the days of plentitude I saved a portion, and now I'm fortified against your assaults. While it rains I am in, out of the wet."

While the sun may shine day after day until we very nearly forget there is such a thing as rain, it is always well to have an umbrella in the closet.

It was a dry summer in the Mountain States, but no one threw away any umbrellas. For as surely as the sunshine will follow the rain, the rain will follow the sunshine.



"Are You There?"

Mr. George W. Bixler, advertising manager of the Public Service company of Colorado, who was a delegate from the Denver Advertising club to the International convention recently held in London, England, tells of a very interesting experience he had in using the telephone in London. He had sent a suit of clothes out to be pressed, preparatory to being presented to King George and Queen Mary, in company with a few other Americans who were favored with that distinct honor. The hour drew near and the suit had not arrived. Mr. Bixler called the tailor, and the following is the line of conversation:

Bixler—"Hello, hello, are you the tailor?"

Tailor—"Yes, are you there?"

Bixler—"I'll say I'm here—or 'there.'"

Tailor—"Carry on."

Bixler—"Carry on yourself; and carry my suit down here pronto. I'm about to miss a high-up feed."

The tailor chuckled and thought he had a good joke on the "bloomin' Yank."

SALE OF TELEPHONE SERVICE

By J. T. Tierney, Commercial Service Engineer

THE telephone business like all other business is dependent for its growth and prosperity upon the sale of a product for which there is a demand and for which the public is willing to pay a fair price. It is unlike most other business organizations, however, in that they are engaged in the sale of articles having color, size and form, while we are engaged in the sale of an intangible product which is a necessity in the life of the community, but which cannot be felt or seen as can the goods of the merchant or manufacturer.

Because our product is not put up in packages or stocked in shelves, there is danger of our looking upon our stock in trade—service—as something to be given the customer upon application, and failure to realize that we fall short of our duty to our customer and to ourselves as well if we do not sell him the right kind of service and all the service he can use to advantage. Moreover, the thought that we are not in a competitive business and that when the public desires service we will necessarily get the business is no doubt responsible for our too frequently overlooking the wide difference between mere order taking and real salesmanship.

It is true that we do not have to face the trade competition which exists in other lines

of business, but it should be remembered that in the sale of long distance service we are constantly in competition with mail and telegraph service and in the sale of all classes of service we have to compete with all the other demands which are made on the dollar of the customer or the prospective customer. In every going concern the selling organization is constantly reaching out for greater volume of sales, constantly striving for a larger share of business in the field it covers. New business is just as essential to us as it is to the wholesaler or manufacturer and it is only by intelligent and persistent salesmanship that we can develop the right type and right amount of new business to insure the continued growth and prosperity of the company.

Responsibility for the sale of service rests mainly upon the Commercial Department. Here is where the selling contact is usually established and here are found the greatest opportunities for constructive salesmanship. However, to secure the best results, the co-operation of the other departments is of the greatest importance because every employee has among his friends, relatives and acquaintances many prospective subscribers who may become customers if the word is passed to the Commercial Department and their business is solicited. The success of our Company in

selling Telephone stock is a fine example of the power of co-operation. Employees in every branch of the service have participated in sales because they were convinced of the merit of the stock as an investment and felt that they were doing their friends a real service when they induced them to buy according to their means.

No less valuable is the service we render to one who is in need of a telephone but who does not now enjoy its benefits when we persuade him to secure these benefits without further delay, or when we show him how to increase the usefulness and convenience of his service by purchase of additional service.

In some of our exchanges shortage of plant has restricted the sale of service and has made it inadvisable to solicit new business because of the large outlay required to provide the needed central office or outside plant facilities. In other exchanges congestion of facilities has affected only certain parts of the exchange or certain classes of service. Obviously, it is greatly to our advantage to sell the service where we now have plant, and good judgment must be exercised in determining where service can be sold and what types of service should be pushed.

Our extension telephone service, extra listings and supplemental equipment are always a fertile field for selling effort because they involve no increase in plant, and it is in the sale of this type of service that we can display real salesmanship. When main station service is needed, we will sooner or later take the order but, as a rule, the facilities which merely round out or improve the service must be sold.

It is of prime importance that all of us, Commercial employees in particular, cultivate the selling viewpoint. We know of the keen, aggressive selling effort constantly exercised in other lines. We know the energy and resourcefulness of men who sell tires, machinery, tools and many other commodities. We know how intense is the fight for business. Let us inject some of this spirit into our own selling. We have a good and valuable product: our prices are fair. Let us resolve that we will seize every opportunity to sell, that we will not merely take orders but, like the best type of salesmen in other lines, we will be keenly alert for prospects and we will not be satisfied to sell less than the full amount of service, including extra listings, extensions, etc. which the requirements of the prospect or customer demand.

If we look upon new business as something to be obtained by thinking, planning and hustling, not as something to accept passively when and how it comes, we will find far more pleasure in our work because when we interest ourselves in our customers' needs and sell them a service which fully meets their needs, we do a good job for the customer, the company and ourselves.

DONT BE A "DONT KNOW"

It is pleasant to know that telephone people have set an example for the employees of a chain of great hotels. In this world of give and take we can all learn something from the other fellow—and frequently do.

The proprietor of this chain of hotels suggests, in a bulletin to his employees, that they forget to say "I don't know," and follow the telephone plan of "always finding out." He says:

"Nobody knows everything — nobody is expected to—BUT in this organization everybody is expected to see that a guest who asks for information gets it."

The person who says, "I'll find out," generally does find out, and he is a much more helpful fellow in an organization of any kind, telephone or hotel, railroad or restaurant, than the one who gives you a languid "I don't know," and lets it go at that.

Courtesy and helpfulness cost little and buy much; if we could realize how much

we'd never be too busy or too tired to go out of our way to "find out" something for a person who really desires to know.



T. G. Miller Promoted

Effective September 22, T. G. Miller was appointed general manager of the Long Lines department, according to a telegram to THE MONITOR from New York. The commercial, traffic plant and engineering departments now report to the general manager.

After leaving college in 1900, Mr. Miller worked several years for the construction department of the National Railway of Mexico before entering the telephone business. He came with the Bell System in 1904, starting in the long lines department, New York, under F. A. Stevenson, and since then has been a member of the organization. During 1906 and 1907 he was district supervisor of Line Maintenance at Atlanta, Ga., and shortly before the plant department was organized he returned, late in 1907, to the general office in New York. In 1913 he went to Chicago as division plant superintendent and remained there until 1919 when the company was put under government control and he returned to New York as acting general plant manager.



GYPSY blood in everyone's veins accounts for that inherent desire for travel, that longing for the open road and the adventures awaiting just over the hill. Strange places, new people are around the next turn. This was one of the motive forces that impelled the hardy pioneers to push westward in the '40's and even as late as the '80's. All, however, cannot be pioneers or even roamers of the open road, and, so, one must be content to read of the places not yet visited: witness which is the demand at public libraries for books of travel.

Any account of Laurel, Montana, would be incomplete without mention of the country it serves with trade and telephone service.

The actual history started long before man made his appearance on the earth. Recent developments and research in connection with the oil industry, now assuming proportions in the district, show this. Though the city now rests in the magnificent Yellowstone valley, where wonderful harvests are gathered each year, with adjacent rocks, hills and mountains wearing a very solid and immovable appearance, yet the whole region has seen many changes in the ages that are past, ranging all the way from the time the great sea flowed back and forth and beat itself into white fury on shores long since gone, to the present time of farming, railroad building, mining and oil development. In the intervening ages mighty rivers flowed to the sea and deposited their silts, great fishes played over what is now peaceful farming communities, and ages after the Appalachian mountains of the east coast had made their appearance, the wonderful Rockies of the west threw themselves upward during a convulsion of nature. The bed of the sea became dry ground; the denizens of the deep disappeared, leaving only fossil remains and oyster beds, to be turned up by the farmer's plow of the present. New rivers cut their channels, volcanoes erupted and died, hot springs and geysers played and ceased, and over all the smoothing hand of time covered up the traces.

Came next the aborigines. The place where Laurel now stands had become a meeting point for game trails, following along the water courses from the north and south and from the

By Campbell Calvert of The Laurel Outlook

west to the east. The primitive inhabitants followed the trails made by the animals, because such roads were the easiest and when the white men came they, too, followed the trails of the game and the Indians, always converging and meeting at the point where Laurel now stands.

When the railroads were built through the northwest, they also closely paralleled the old trails, taking advantage of lines of least resistance. Thus did Laurel become the crossroads of the northwest, the gateway of commerce in the exchange of Canada's grain for tropic fruit and Pacific's raw materials for Atlantic's manufactured articles. Meeting here are the greatest railway systems of the northwest: the Northern Pacific, the Burlington and the Great Northern. On account of the geographical location, Laurel in time became the terminal for all three systems in the matter of handling freight on each line and for interchange. Accordingly extensive railroad yards were built, together with the largest roundhouse between the Pacific coast and St. Paul, and extensive shops for building and repair of cars for all three systems.

The modern history of Laurel as a town and subsequent city dates from the year 1888, six years after the arrival of the railroad on its progress westward. In the winter of '88 and spring of the following year, a depot was built by the Northern Pacific a short distance west of the present city. A section house had been built previously about two miles east and a postoffice established there.

Even in Laurel's infancy the residents believed that this would be a great railroad center. Perhaps this was first fostered by the action of Sam Houser, who was connected with the Northern Pacific, by inducing Sam Young to buy for him that section of land where Laurel was first established and on which he afterwards platted a big townsite. Young was working on the railroad's branch into Red Lodge from Laurel at the time.

Then a great calamity befell Laurel, for its only hotel burned. Nothing daunted, the in-



Top—R. E. Coy, manager at Laurel; W. A. Wilson, combination man; Kathryn Rugg, chief operator.

habitants, few in number, set about making improvements and the little town grew as rapidly as it could. In the year 1890 or '91 the first school house was built, consisting of a log cabin. In the summer of 1892, L. M. Rose built the first store in Laurel. Previous to this the people went to Billings and Park City for their supplies. The depot, store, section house and a saloon then constituted the town, but this was supplemented the following year by a hotel. This was at the time Coxe's army was marching on Washington. Another store was added in 1895 and a blacksmith shop made its appearance. About this time the first public hall was built, which was another important event. Through intervening years the hall was the scene of many political meetings, lodge sessions, dances and suppers.

Rev. Joseph Pope organized the Congregational church for which a building was erected about 1890.

The population increased somewhat after 1895, and in 1897 another store opened, which served the people of the town, the farmers and the Indians. The Indians for a while were the best customers, as they had the most money.

In August, 1899, the Northern Pacific moved its depot from the original location to a point farther east. This was the sign for the remainder of the town to move, which was accomplished without much difficulty. The town then stopped its roaming and has been very much "put" since.

Progress was decidedly slow for a few years, although the people continued in their belief

that Laurel was destined to become a big town and a railroad center. Another common topic of conversation was that smelters would be located here to refine the ore from mines at Cooke City. Time has brought the additional railroads the old residents so confidently expected, and the prospects of seeing Cooke's ore smelted here are brighter now than they were in that early day, all of which goes to show that Laurel's pioneers were not far wrong in their predictions.

Laurel was not devoid of interest, notwithstanding its smallness. Many prominent people visited the village and often spent the night at the Malcolm hotel. Among these were Sen-



Public School at Laurel, Montana.

ator W. A. Clark, a prominent figure in state and national affairs, and the late Jack London. The latter arrived one night in a downpour of rain in order to escape the attentions which the ladies of Billings insisted on showering upon him.

In 1906 it became common knowledge that the Northern Pacific intended building great shops, yards and roundhouse here, and as a result business enterprises multiplied at an amazing rate. During the years 1907 and '08 the appearance of the entire town was changed, many new families made this their home and there was a general air of expectancy. This commenced to be fulfilled when the railway company started building, after having acquired the L. A. Nutting ranch east of town as a site for its operations. The roundhouse was commenced in the fall of 1907 and was finished the next year.



Main Street, Laurel, Montana. On right is new American Bank Building, in which the Telephone Office is located.

Upon completion of the railroad's work, Laurel was made the freight terminal of the Northern Pacific, Burlington and Great Northern, the latter having completed its line from Laurel to Great Falls.

In 1907 a disastrous fire laid waste to a portion of the town, commencing in a blacksmith shop between Main street and First street on



Top—Amy E. Freund and Elsie J. Blechschmidt.

Third avenues. The burned district was immediately rebuilt with brick structure. A portion of the west side of Third avenue was built up and business started there, but a second fire, in 1910, destroyed the buildings, including the one housing the telephone office.

Such is the early history. Since then there has been a continual, steady growth, until now the population is near the 3,000 mark.

With the growth came improvements, the first of which was a water and sewer system, followed in later years by concrete sidewalks, a street lighting system for the entire city, a paved main thoroughfare, substantial brick buildings, churches, schools, public library and all the attributes of a thriving and growing city and community.

R. E. Coy, local manager for The Mountain States Telephone & Telegraph company, was a member of the first town council and is now representing his ward as a member of the present city council.

The company has ever kept pace with the growing demands of Laurel and in keeping with its general policy has a plant and equipment fully equal to all requirements which may be made upon it. The satisfaction of the subscribers and the general public at the 24-hour service rendered is testimony supporting the correctness of the statement.

In the country surrounding Laurel and contributing to its wealth are extensive and varied farming operations. The chief crops produced are wheat, oats, barley, corn, sugar beets, flax, fruit and garden produce. Even on un-irri-



Top—Thelma L. Bitts and Maude H. Roberts, Laurel.



Lewistown, Montana, Picnic

Lewiston, Montana, employees and friends, recently had a fine picnic at Girl Scout Camp, Ruby Gulch, a distance of about nine miles from Lewistown.

Cars were loaded to the maximum with operators, linemen, groundmen, janitors, friends and cats, and cars without mishap were parked in one of the beauty spots that abound in and around Lewistown, and soon unloaded under the direction of the Picnic Committee, consisting of Grace Grant, Helen Dobeus and Gertrude Jordan. A repast fit for the kings, was soon on the way to readiness for disposal.

Hal C. Danzer, wire chief, had engaged every member of his family and others available and proceeded to freeze ice cream, four big freezers full of maple ice cream and pineapple sherbet. These had been packed and transported to the picnic grounds in 100 per cent condition.

Everybody lined up for eats in cafeteria style. Then came the maple nut ice cream and pineapple sherbet; with these you were confronted with the cakes.

One of Mrs. Danzer's renowned nut cakes,

Mrs. Thielke's chocolate, Mrs. Maury's angel food, Mrs. Grant's white, Mrs. Jordan's chocolate, Helen Dobeus' white and Finkbinner's Mocha cake. Can you imagine the finishing touch these cakes gave the occasion? But we all enjoyed the cakes, nuff said. Everyone



Late Arrivals at the Picnic.

went the rounds until enough prevailed, and other things began to attract attention. "Oh, how beautiful the mountains are," and "Oh,

Employees Entertain

The employees of the M. S. T. and T. company very pleasantly entertained at a 6:30 o'clock banquet supper at the Gibson cafe, Thursday evening in honor of Miss Marguerite Edmondson. The table was prettily decorated in cut flowers and a delectable chicken supper was served. Covers were laid for A. G. Hill, Mr. and Mrs. L. M. Baker, Harry Hulse, Mrs. H. H. Holmes and the Misses Vaughn, Leona Hoffman, Helen Welch, Helen O'Brien, Georgia Ramey, Lois Griggs, Helen Boots, Vera McCalmont, Rose and Mildred EnEarl and Marguerite Edmondson. —Salida, Colo., Mail.

The Ladies Like 'Em, Too

"Is he polite?"

"Say! That guy takes off his hat in a phone booth before calling central!"—Drexler.

how big the mosquitoes are." "Gee! isn't it great to get out like this," etc.

Someone somewhere resurrected a bat and indoor baseball and the play began. First, one-o-cat; then Captains Alma Mauland and Rose Finkbinner chose sides in a game that showed up the sluggers in the crowd for there were many one-base hits on lost balls. Anyhow, one team had 19 scores and the other 17. The batteries were:

Thielke and Thomas: Richards, Grant, Nellie, Welch, Myrtle, Alma, Rose.

Danzer and Maury: Helen, Bob, Sawyer, L. Grant, Edith, Richards, Sprague.

No serious accidents were encountered. However, a few souls managed to find Thielke's nose and Maury tried stopping one of Bob's radio flashes and both suffered for their efforts.

The game was called at 4:30 and a car was sent back to the office for the last load of girls to come out, these arriving at the grounds about 5 bells.

The parting event proved to be the tug of war. Thomas had inadvertently left the block and tackle in the truck; this was discovered, location chosen, sides picked, and the war was on. We will not attempt to give the lineup, as the sides were varied to the extreme; however, when such heavyweights as Thomas and Bob and Danzer leaned to, there was one inevitable result—their side won. The contest closed without casualties.

After the tug of war was over lunch was served and watermelon was added to the bill of fare. With pictures all taken, well fed and plenty of exercise and old Sol insisting upon descending behind the mountains causing the frolickers to hesitate, pack up and wend their way back to Lewiston and home.

What Advertising Is

Someone has said, "An epigram is a real thought condensed until you can't understand it at all" but if this is ordinarily true, there are exceptions, as we shall prove by quoting the following from a speech made by Joe Moorhead, now holding a responsible position in the publicity department of The Mountain States Telephone Company. "Advertising," said the former editor of the Colorado Springs Gazette, "carries the voice of supply to the ear of demand." If you find anything better than that, please forward it to us.—Colorado Springs Farm News.

Scratched from the Race

The horses thundered into the home stretch. A chestnut colt, running his first race, led the field by fifteen lengths. When a few yards from the finish, the colt stumbled and fell across the post, a winner. The jockey, unhurt by the fall, scrambled to his feet and shook his head reproachfully at the animal.

"Hoss," he said, "I know you're anxious to make good, but you didn't have to slide home to win."—Ex.

PUEBLO SISTERS



Pueblo Sisters

Pueblo, Colorado, holds a pretty high record for groups of sisters, all in the employ of the Telephone company. In the pictorial display here given there are eight sets of sisters—two from each family, except in one case where there are three sisters.

There may be other offices in the Mountain States territory where a larger number of sets of sisters are employed, but just now THE MONITOR does not know of them, and there may be those who will challenge our sisters at Pueblo.

We often speak of the Bell employees as a "big family," with "Mother Bell" as the mythical guardian angel, and what better proof of it is there than shown in this group of fine-looking, high-class girls at Pueblo! All over this country are sisters working side by side in the telephone offices; brothers are working side by side, and even father and sons are enlisted beneath the same banner of service.

Think of it—nearly three hundred thousand men and women in the Bell System today—enough to make a city larger than Denver—all happy in their work and all striving to give the public the best telephone service possible.



Pacific Coast Man Visits Cheyenne

On September 15 Cheyenne had the unexpected pleasure of having Mr. Geo. A. Shearer, representing the Pacific Telephone and Telegraph company, pay us a brief visit. While here Mr. Shearer went over our exchange, visiting each department. Incidentally he looked the town over and saw a place where real saddles are made.



(1) Cary Sisters, (2) McCumber Sisters, (3) Anderson Sisters, (4) Metcalf Sisters, (5) McDonald Sisters, (6) Sharp Sisters, (7) McConnell Twins, (8) R. Boyd, the Twins' Aunt, (9) Weyard Sisters.

Too Close

A negro went into a bank down South to get a check cashed. He stood in line a long time and finally his turn came. Just as he got to the window the teller put up a sign: "The Bank is Busted."

The Negro—"What do you mean, the bank is busted?"

Teller—"Well, it is, that's all; it's busted. Didn't you ever hear of a bank being busted?"

The Negro—"Yes; but I never had one bust right in my face before."—The Christian-Evangelist.



Local Calls at Pueblo

Pueblo, Colo.—Mrs. Maxwell is on her vacation. Before she left she invested in a car and is traveling around in it. She is supposed to be back in two weeks, but from what we have seen and heard of her driving we doubt if she will be here on time.

Miss Alice Metcalf is spending her vacation in Colorado Springs.

Miss Shoemaker who has been with the Pueblo office for more than a year, has gone to Nebraska to enter college. We hope when she finishes she will come back to Pueblo.

Miss Mennick, one of our local supervisors, was almost arrested for speeding the other day. She finally got almost to the top of the hill with her Ford when it began backing down. She was exceeding the speed limit when she got to the foot of the hill, but the traffic cop was so dizzy when she passed him that he did not get her number.

Miss Rachel Boyd spent Labor day at Lamar. She visited the telephone office there and also at Wiley.

Miss Ruth Clinger recently spent a few days in Ordway, her former home. We hear that while there Miss Clinger took part in several entertainments, and we know that everyone enjoyed hearing her wonderful soprano voice.



Modern Names

Mrs. Johnson—"Ah thought you-all said you was gwine to name your new baby 'Victrola,' but Ah hears you-all done make a change."

Mrs. Moses—"Yes, Ah expected it would be a girl an' Ah had decided to name her 'Victrola,' but she turned out to be a boy, so Ah done name him 'Radio.'"—Ex.

Englewood, Colo. Has Good Service

By Betty Devine

GETTING acquainted with some of the suburban members of our Telephone Family has been one of my most pleasing diversions of late. I hate to brag, but, every time I meet a new branch of our big family I'm more proud that I'm a member of it. Just a lot of real folks, with the accent on real. And talk about fraternalism; I don't believe there is to be found anywhere a group of people who exemplify this spirit more strongly than telephone people, bound together, the world over, in the great cause of Service.

The other afternoon, driving out South Broadway, I conceived the idea of following the car track just to see how far and where it went. Swinging around the corner I suddenly came face to face with the editor of THE MONITOR and when he got into my eyes the only other thing I could see was a blue bell sign for background which told me I was among friends and in front of our Englewood exchange.

You see I was supposed to be working, and coming suddenly upon the editor, right in the midst of a perfectly nice drive, sort of disconcerted me but I hurriedly reached for a gangplank by stopping my car—my error. I should have said my "Rolls Royce" (er, that is of course if you haven't seen it) and mustering my sweetest smile—nope, afraid that won't get across either for everyone who knows me, knows it's a broad grin or nothing with me



Left to right—C. E. Abbott, manager; Louise Shockey, Lois McKissic, Dorothy Radle, Florine Robin, Anna Anderson, evening C. O.

—so I grinned and acting surprised said, "O, you too are visiting the Englewood exchange?" (rising inflection). "Just dropped in on my way to Littleton," he replied, but there was a suspicious look in his eyes as he added "These are nice folks, Betty, let's tell THE MONITOR about them."

He can have my vote on it, they certainly are nice folks and a very few minutes in that office proved conclusively that we are not the only ones who think so, for everyone who came in to pay a bill (and they seem to have got their subscribers into that habit) acted as if they had been just living for the moment they could get in there and say "Howdy" to Mrs. Simpson and Mrs. Williams.

Oh, that's right, some of you may not know who's who at Englewood so I'd better tell you that Clarence Abbott is manager out there, and do you know, he isn't a bit like the "Clarences" one reads about. He's a big husky he-man, but I'll tell you more about him later; right now I want you to know Mrs. Simpson—first name Eva, naturally wavy blonde hair streaked a little with gray and a smile that warms the very cockles of one's heart. She has a service record of 18 years carrying her thru Gallup, Champa, Long Distance and Englewood exchanges, the latter having claimed 10 of those valuable years, and instead of wearying of it she says she can hardly wait for her twenty-year service button. That's the true telephone spirit and incidentally the spirit that permeates the atmosphere of the Englewood exchange.

It takes only a few minutes talk with Mrs. Simpson to know that she is "pure gold"; the genuine, understanding type that one could go to in any emergency, talk out any problem with and be assured comfort and satisfaction. Her title is Chief Operator but she understands everything pertaining to the functioning of the entire exchange and constantly keeps



Left to right—Viola Williams, Hulda Anderson, Nettie Clapp, Ella Wheeler, Eva E. Simpson, chief operator. Insert—Estella Rogers, all-night operator.



"We" Have Moved--Come and See

THE MONITOR force has moved. Anyone wishing to contribute cordwood, pumpkins, cabbage, side meat, etc., will find ye editor at 607 Telephone Building, Fourteenth and Stout streets, Denver.

The Publicity department is also reached through the same entrance, and the latchstring reaches from where you are to where it is.

The cartoon herewith looks like the dark work of Cy Meyn, and even though he pictures ye editor, who brings up the rear, burdened down with a pair of shears and a heavy expression, we want everyone to know that our burdens are not so great as they look and that our gentle smile and placid countenance is ever at the port-hole to greet all comers.

her eye on the machinery, both physical and mechanical, as the plant end of the operation calls Mr. Abbott to various points outside the office much of the time.

Petite Viola Williams with dark bobbed hair and soulful brown eyes is Mrs. Simpson's assistant, acting in the capacity of clerk and information operator with dignity and capability far beyond what might be expected of one of her size and years. Mrs. Williams handles most of the collections.

Her mother, Mrs. Stella Rogers, is night chief operator at the exchange which makes telephone business a family affair thereby adding interest to the work.

There are no cranks in the Englewood exchange—I have it from Mrs. Simpson backed up by Mrs. Williams that in the 1225 subscribers there is no one who is exacting or disagreeable to the extent of being categorized as a crank.

That's a pretty nice tribute to the subscribers and incidentally to those who serve them, is it not?

The Englewood service consists largely of toll calls to Denver, averaging 1100 daily, these being trunked thru A. B. service from a common battery board No. 10, with 7 positions, five of which are in use most of the time.

Several country lines add the responsibility of code ringing to the duties of the operators while another and a very essential one comes with the fire calls which are reported first to the attendant in charge at City Hall, after which the operator calls each member of the volunteer department, personally, having a list

of several names to be notified in such emergency.

Some of the handsomest suburban homes of the state are situated in the Englewood district, that of the Delos Chappell's, Harold Kountze's, W. J. Whiteman's, and while the A. C. Foster and George Gano palatial country places are really in the South exchange their calls come thru the Englewood exchange at present.

With this start it would seem the Englewood district is destined for greater favor for fashionable country estates.

Contributing to the successful giving of service in this exchange are Miss Anna Anderson who acts as chief operator evenings and during Mrs. Simpson's absence at lunch time; Miss Ella Wheeler, senior operator with a service record of 3 years in Englewood and a former record of 8 years; Miss Hulda Anderson, dainty, blonde and "bobbed"; Miss Florine Robin (a name for a stage star or character in fiction, eh, wat?), slender and dark with lovely coloring; Miss Nettie Clapp, also in the "pony" class with dark hair which has not been sacrificed to the style made popular by the famous "Irene Castle"; Miss Alma Ryland who six month ago hailed from Indianapolis and has since won a warm place in the hearts of her co-workers in this exchange; Miss Helen Coffield, who unfortunately for me was ill the day of my visit but who I am told is both attractive and capable; Miss Dorothy Rundle whose dark tresses are drawn back in the simplest fashion into two coils at the back of a well shaped head

and whose laughing blue eyes and winsome charm of manner at once acclaim her a favorite in the ranks and Miss Louise Shockley, student operator who is at present acting as extra girl and Miss Lois McKissack who has just entered training, giving evidence of learning the work quickly.

Miss Evalyn McNeeley of our operating force in Canon City dropped in for a brief visit to the exchange while I was there and if she is a sample of the Canon City girls I just hope the editor will sentence me to "Canon" at least long enough to meet the rest of them. With the fore-going force of young women, and Clarence Abbott as manager, assisted by Gordon Lane, plant man, it would seem that the Englewood district is in safe hands with a forecast of smooth sailing.

Mr. Abbott has a service record of 12 years though he has been with the Company much longer, his record having been broken. He came originally from the East but is a Colorado convert and his brand of enthusiasm would indicate that nothing can win him from Colorado. He's willing to just live and die right in this state. He is a general all around telephone man, not only taking care of the plant work for Englewood, which in itself stretches over considerable territory, but also handles the plant work for Sullivan with its 130 subscribers stations.

Added to these capabilities Mr. Abbott is the likable sort that puts whatever he has to say "right over the home plate," straight from the shoulder, gives everyone a square deal and in consequence has the confidence and co-operation of his office force and subscribers.

His assistant, Gordon Lane, made his way up to Colorado from Miami, Fla., last spring just in time to see the last snow fly; and talk about thrills! It was his first sight of real honest-to-goodness snow. He is a fine plant man and well liked by the rest of the Englewood family but fears are expressed by some that he may have "cold feet" instead of thrills when the Weather Gods turn loose their feathery flakes in next winter's blizzards.

Handling a Big Stock Sale

ON August 1 the American Telephone and Telegraph Company's new \$150,000,000 stock issue came to a successful close. This issue, so far as we know, is the largest ever offered for subscription by any corporation in the world. The new stock was offered at par to the Company's 316,046 stockholders of record at the close of business on June 10, 1924, and the number of subscriptions to the new issue alone exceeded by over 30,000 the total number of stockholders in any other corporation. The money received will provide for extensions to the nation-wide telephone system.

More than half the total of 191,000 subscriptions were made during the final week of the issue, but special methods had been developed by the Financial Department of the American Company and this large volume of work was handled with dispatch. During the period of the issue it was necessary nearly to triple the force in the Treasurer's office. The temporary force, numbering about 435 employees, was recruited from the outside, the majority being required for only a few weeks. After the issue was announced new employees were added daily as rapidly as they could be secured and trained in their duties. The Company was most fortunate in finding available a high class of employees, all of whom rapidly acquired the Bell spirit in their contact with the public and in their dealings with one another.

The terms on which the stock was to be issued were set forth in the Company's circular of May 20th, one share being offered for each five shares outstanding on the record date; the exact amount offered, thus determined, was \$151,157,500. The stock could be paid for in full as of August 1 or in three installment payments on August 1 and December 1, 1924, and April 1, 1925; the terms of the offer were so arranged that under either payment plan the yield until April 1, 1925, would be 6 percent on the money paid by the subscribers. By that date all the stock subscribed and paid for will have been issued.

Of the 191,000 subscriptions, which average 7 4-5 shares each, 138,500 were paid for in full and 52,500 were made on the installment plan. Nearly 175,000 of the subscriptions were made by stockholders to increase their holdings and over 16,000 by investors who owned no stock at the time. Thus, slightly over \$130,000,000 of cash has been received, as of August 1. That part which was not required for immediate use has been invested mainly in short time obligations of the United States treasury, and as it was possible to anticipate how much money would be received these securities were contracted for several weeks in advance and at prices materially less than it would have been necessary to pay



later when the money was received by the Company from subscribers. These investments mature at various dates in the near future so that the money becomes readily available as it is required.

Some have asked if the issue was oversubscribed. This was not possible. Had the stock been offered for public subscription there is no doubt that it would have been oversubscribed but the terms of the offer allotted all subscription rights to those who were stockholders at the close of business on June 10th. Of course, these stockholders could subscribe for their proportionate part of the stock or sell their rights to do so. But the owners of these rights, and they alone, could subscribe for the new stock, each subscription being limited by the rights owned. Everything practical was done to inform the stockholders of their rights and the value of these, but

notwithstanding this, as has always been the case, a small percentage of the stockholders failed either to exercise their rights or to sell them, and the amount of stock remaining unsubscribed is slightly over 1 percent. This stock may now be sold by the Company at any time at the market price, and in such cases it has been the practice to place the full amount of the proceeds in the treasury. Until the shares are sold they will remain unissued.

A broader service was rendered the stockholders than during any previous issue. At the office of the Bell Telephone Securities company in New York and at the business offices of the Associated Companies in those states where it was possible, it was made convenient for those interested to buy and sell rights in order to adjust their subscriptions and in other states the Associated Companies co-operated, doing everything possible for the convenience of the employee stockholders and others. The total number of transactions in rights thus affected was approximately 52,000 averaging only a few rights each. All reports are to the effect that the service rendered by the Bell Telephone Securities company and the Associated companies was excellent and greatly appreciated.

The experience gained from the two previous stock issues which were also substantial in size, enabled the methods organization to make a very comprehensive study of the many problems involved and to simplify further the details so that there was again a substantial saving in time and money in comparison with the previous issues.

Traced From Chicago to California

S. A. IONIDES
Metallurgical and Chemical Engineer
541 Equitable Building
Denver, Colo.

July 24, 1924

Mr. F. H. Reid, President,
Mountain States Telephone & Telegraph Co.,
Denver, Colo.

Dear Sir:

It is a great pleasure to be able to compliment the Telephone Company and the staff on the way they handled an important call to Chicago two days ago.

A School of Mines boy was killed accidentally, at the Cary Ranch and his father being in London it was extremely desirable to get in touch at once with his uncle in Chicago. We put in a long distance call from Estes Park, and they received no reply at the Chi-

cago number and your operator asked if a messenger should be sent to the house and to a neighbor to inquire Mr. Johnson's business address. This was done but they were not able to locate him in Chicago. However, the next morning we had a call from the Telephone company to tell us Mr. Johnson's address in California where he had gone for a vacation and through this information I believe we have been able to locate him. Such service demands recognition.

Very truly yours,

S. A. IONIDES

Just an Inking

Teacher—Who can tell me what a postoffice is?

Johnny—A place where a Scotchman fills his fountain pen.

The Bell System's Part in the Defense Day Program

GENERAL OF THE ARMIES
WASHINGTON

September 13, 1924.

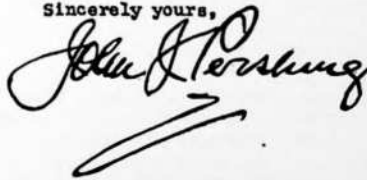
Mr. H. B. Thayer, President,
American Telephone and Telegraph Company,
195 Broadway, New York City.

My dear Mr. Thayer:

May I take this opportunity to express my appreciation to you and through you to the American Telephone and Telegraph Company and its Associated Companies for the generous participation in the Defense Test. In addition to the use of the physical facilities of your great communication system, which have contributed an important part toward the success of this undertaking, the spirit of cooperation evidenced in this matter is, indeed, a symbol of patriotic devotion to the ideals of our country.

In leaving the active service, I send this word of grateful remembrance of the aid furnished me by your signal communication forces in France during the World War.

Sincerely yours,



Copy of Letter written by General John J. Pershing to Mr. H. B. Thayer, President of The A. T. & T. Co.

night," Gen. McSaltzman was followed by Secretary Weeks who, after a short address in which the work of General Pershing, the retiring general of the armies of the United States, was eulogized, introduced the general himself.

General Pershing was followed by General Carty and it was under his direction that the major demonstration of our telephone network was given.

General John J. Carty, speaking from the War department, introduced the Call-of-the-Roll Generals with the following significant paragraph: "To illustrate in a practical manner the functions of communication I will now call over the long distance wire a number of cities and towns extending from Atlantic coast westward to the Pacific, placing all of them in direct wire communication with this room at Washington. Tonight the radio stations are

One of the far-reaching services which our telephone lines could render in case of national emergency was well illustrated on the evening of Defense Day. Nineteen thousand miles of circuit had their focus in the national Capitol and were operated as a single unit enabling the generals in charge of the Defense Day activities at four widely separated army corps centers of the country to communicate with their headquarters in Washington where sat the Hon. John W. Weeks, secretary of war, and General John J. Pershing.

In addition to bringing into Washington direct reports from the corps areas, the 19,000-mile telephone network was tapped in 18 cities throughout the country to permit the proceedings to be broadcast by as many radio stations. This is the greatest nationwide broadcasting event on record, stations extending all the way from Boston to San Francisco and from Minneapolis to Atlanta and Dallas being tied together by our long distance lines. How many people heard the final program of Defense Day as broadcast, it is impossible to say but it was an event never to be forgotten by those numbered among the radio audience. This use of the circuits, which virtually reduced the nation to the dimensions of a small chamber for the time being, was the Bell System's contribution to Defense Day and the success of the event was facilitated by the fact that it was under the auspices of the army authorities.

At 9:15 p. m., Eastern Standard time, Major General C. McSaltzman, the chief signal officer of the army, was introduced to the radio audience by the announcer of WCAP, the radio station of the Chesapeake and Potomac Telephone company. Before closing the exercises, he said: "It has been an epoch making event in the history of communication. The department desires me to express its appreciation to the American Telephone and Telegraph company and its associated Bell companies for all that they have done to make this possible to-

connected with these wires, so that the radio listeners may hear the conversations taking place over them. In the event of a national emergency, such messages would not be heard by the radio listener, but would only reach the individuals for whom they were intended."

After General Carty had called the roll of the four army corps centers, General Pershing obtained in turn a report of the day's activities from Maj. Gen. Robert Lee Bullard in New York, Major General Harry C. Hale in Chicago, Major General George B. Duncan in Omaha and Major General George C. Morton in San Francisco.

This necessitated two-way transmission over part of the network. Ordinarily in the connecting of broadcasting stations together so that they may receive a common program, transmission is merely one-way, that is, outward from the point at which the program is rendered. To permit of two-way transmission, the main circuit of the network which connected San Francisco with Washington and

which passed through the other army corps centers was operated on the "four wire" principle, one pair being used for transmission in one direction and one pair in the opposite direction. It was this arrangement that gave rise to the rather paradoxical fact that each radio station heard the various speakers by way of Washington. For example, when Major General Morton in San Francisco talked into his transmitter, his words were not carried directly to station KGO just across the bay in Oakland but first went to Washington over the pair of wires used for transmission eastward and then came back on the pair used for transmission westward, making a total journey of some 6,000 miles before reaching station KGO. This may seem, at first sight, to be an unnecessarily complex method of distributing the program but when it is remembered that Major General Morton in San Francisco was relayed not only to station KGO but also to 17 other stations, many of them in the eastern

200,000 Miles and Not a Wreck

(From The Denver Post)

Two hundred thousand miles of driving without so much as scratching a fender—

Seven years at the wheel of a car and not an accident—

Weekly, even daily trips over every mountain pass in Colorado with no damage to his machine or to any other—

That sounds like a record.

Elmer W. Bean, one of the official chauffeurs of the Mountain States Telephone and Telegraph company has set it up and his employers think it stands as the best possible proof that motor accidents are preventable and that the daily loss of life on the streets and highways of this and adjoining states is due to carelessness and nothing else.

Bean, who lives at 719 Lipan street, has his own code of careful driving and it reads like this:

1—Watch your own driving first and then the other fellow. He may be a fool.

2—Take no chances. Delays are not nearly as dangerous as speeding.

3—Chains for wet roads. It is never too much trouble if the track is slick.

4—Dim your light. The other fellow usually will dim his if you do it first.

5—Keep your brakes in shape. "They wouldn't hold" is no excuse.

6—Obey traffic regulations wherever you go, no matter how silly they seem.

Bean says accidents are due to carelessness. "They have to be," he insists. "If your car is in tune and the other fellow's is in tune, too, and you both drive carefully accidents won't happen. They just can't.

"I make it a rule to go to a garage as soon as I detect any car trouble," this young expert continued. "At first I feared it would run my maintenance up, but a recent check on the touring car I have driven for the last year

part of the country and most of them not on the direct route of the transcontinental circuit, it is evident that to have everything go by way of Washington became the most logical arrangement.

As already stated, a broadcast program carried on from 18 stations scattered throughout the entire country and connected by 19,000 miles of telephone circuit is the largest event of its kind on record. The proper handling of such a vast array of stations and lines is an engineering problem of the very first magnitude. A supposed analogy is sometimes drawn between train dispatching and telephone dispatching, and while there are certain similarities there is one outstanding difference. In dispatching trains, it is only necessary to know the condition of the track a short distance ahead of each train. Before any telephone traffic can be dispatched the circuits it requires

or two showed that for 26,000 miles the upkeep was reasonable."

Bean drives company officials all over Colorado and often into the adjoining states served by the telephone company, an area one-fifth the size of the whole United States. His car is always ready for the road and his employers say he makes good time on every trip.

"Don't believe what you hear about women drivers," says Bean. "Colorado women are the best automobilists in the country. Sometimes they are not familiar with all the traffic regu-



Elmer Bean, the Driver who is Cautious.

lations or the traffic signals, but they are careful and do not figure in accidents nearly so often as men. In town my biggest trouble is with boys on bicycles or those who hop off the rear of delivery trucks. In the mountains the visiting driver who hugs the inside of the

must be operative as single units from end to end. Whereas a train travels but a few feet a second, telephone currents move virtually with the speed of light, so that every point of the 19,000 miles of line received the program at virtually the same instant. The time required for words to travel from San Francisco to Washington or in the reverse direction was only 1/50 of a second and obviously in order to do what was required of it the nationwide network had to be in perfect operating condition over every inch of its length throughout every moment of the program.

The stations participating were WCAP Washington, WEAJ New York, WOO Philadelphia, WJAR Providence, WNAC Boston, WGY Schenectady, WGR Buffalo, KDKA Pittsburgh, WLW Cincinnati, WGN Chicago, WLAG Minneapolis, KSD St. Louis, WDAF Kansas City, WOAW Omaha, KJZ Denver, KGO Oakland, WSD Atlanta, WFAA Dallas,

road, regardless of the rules, adds considerably to the danger of motoring.

"But generally I haven't any kick. Most people have just as good intentions when they are at the wheel as when they are at home, and if you do the right thing they'll usually meet you half way."

Accident prevention is an important activity with the telephone company and safety training has resulted in a reduction of 71 per cent in all types of accidents since its inauguration. Therefore most of the drivers have high safety records.



Aiding Telephone Service in Europe

The London agreement, ratifying the Dawes Plan, is the most constructive measure taken by the European governments since the Armistice and means a restoration of confidence and the establishment of a basis on which to build a sound economic structure, in the opinion of C. G. DuBois, president of the Western Electric company, and G. E. Pingree, vice-president and general manager of the International Western Electric company, who have just returned from an extended European trip.

The Western Electric officials report that their European Associated Companies are doing a good business at the present time and that the prospects for an increase in business during the next few years are very favorable. This holds true of the factories in London, Antwerp, Paris, Barcelona and Milan. In order to take care of this anticipated increased business, the French company has a new and larger factory under construction in Paris, and some of the other companies are planning to increase their manufacturing facilities.

This month there will be cut into service the first of the modern long distance telephone cables in Italy. This "toll" cable as it is known, connects Milan, Turin and Genoa. It was manufactured in Italy according to standards developed by the Western Electric company in America and is of the same high transmission efficiency as the long distance cables in use here. Other such cables now in operation in Sweden, Holland and Switzerland, one now being installed between Paris and Strasbourg, together with other similar cables planned for France will form the nucleus of an international network for western Europe which will ultimately provide long distance telephone facilities of far reaching social, commercial and political significance.

Before many years Americans traveling in Europe will not experience the same difficulties with the telephone service as now. The western European countries are beginning to develop and expand their telephone systems, and their plans call for the installation of automatic equipment in the principal cities. This will overcome the language difficulty and at the same time put the service on a plane of efficiency to which Americans have long been accustomed.



We had six lost-time accidents in August, a decrease of one compared with July.

Montana, Wyoming, and Idaho passed through the month without a lost-time accident. This is the eighteenth consecutive month for Idaho, the eighth for Wyoming, and the third for Montana without a lost-time accident.

Wyoming still holds first place.

Idaho advanced from third to second place.

New Mexico-El Paso, after going for ten months without an accident, had one in August, due to gross negligence of an employee, and dropped from second to third place.

Montana, with no accident for the month, remains in fourth place.

Colorado, with two accidents for the month, remains in fifth place.

Utah, with one accident for the month, remains in sixth place.

Installation Department, with one accident for the month, remains in seventh place.

Arizona, with one accident for the month, remains in last place.

Bill and His Catch

Ho, you fishermen! Look who's here! Introducing Bill Reineman, of the accounting force at Helena, Montana.

Bill doesn't claim to be much of a fisherman... but he does like to "jest loiter around the edge" of the stream and see what's offered, and some say that



DIVISIONS	Average Number Male Plant Employees	Number of Lost Time Accidents	Lost Time Accidents Per 1,000 Male Plant Employees
Montana	158	0	.00
Wyoming	120	0	.00
Idaho	98	0	.00
Colorado	630	2	3.17
Utah	252	1	3.97
Installation Department	118	1	8.47
New Mexico-El Paso	107	1	9.34
Arizona	98	1	10.20
Total	1,581	6	3.79

CLASSIFIED

Using defective tool	1	Objects striking, crushing	1
Slipping of tool	1	Burns, hot ashes	1
Lifting, pulling or pushing	1	Sharp or pointed objects, wire ends	1

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

DIVISIONS	Average Number Male Plant Employees 8 Months	Number of Lost Time Accidents	Lost Time Accidents Per Month Per 1,000 Male Plant Employees
Wyoming	127	0	.00
Idaho	96	0	.00
New Mexico-El Paso	110	1	1.14
Montana	195	2	1.28
Colorado	594	10	2.10
Utah	225	6	3.33
Installation Department	123	4	4.06
Arizona	103	5	6.07
Total	1,573	28	2.22

"Bill's the durndest fishin' cuss
Fer catchin' bullheads he is great.
He never seems to make a fuss
About the pole or bait—"

But "it do seem" that he had laid it all over all the rest of the telephone fishermen in the year of 1924. The first is the picture herewith, and the certified statement by C. J. Eaton, Montana state auditor, leaves no doubt as to the authenticity of the picture. This account accompanies the picture:

"Some fish! Brought in by Bill Reineman of our accounting force. A pure specimen of Dolly Varden 'Bull trout,' the cannibal of all the trout species. Its weight of 12 pounds 4 ounces must have taxed Bill's tackle. However, it was caught 'nigger fishing,' with small bull-head and line."

He has riches enough who has enough to be charitable.

Always Seeking to Improve

Approval has been received by H. P. Stomiel, manager of the Grand Junction district of the Mountain States Telephone and Telegraph company, for the construction of a new copper toll circuit between Meeker and Craig and Hayden, the total cost of this work amounting to over \$30,000. Construction work on this line will be finished before the first of January. The telephone company has been watching the developments in the Craig territory carefully for several months past, with a view of providing better toll facilities as soon as it appeared that conditions warranted the expenditure, and they now feel that they are justified in going ahead with this work.—*Grand Junction Sentinel.*

Said the man who was trying his best to appreciate good music: "When a piece threatens every minute to be a tune and always disappoints you, it's classical."—*Congregationalist.*

Recent Instances of Regulation

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

By Milton Smith, General Counsel

Injunction Granted Restraining Enforcement of Order Fixing Telephone Rates Which Had Yielded Unfair and Confiscatory Return During Test Period.

The United States District Court for the southern district of New York, in *New York Telephone company v. Prendergast, et al.* entered an injunction restraining the rates sought to be inflicted upon the company by the Public Service commission. The court found that the rates had been in effect for a sufficient length of time prior to the court proceedings to demonstrate their inadequacy and confiscatory character. Among other things, the court held that the action of the commission in denying an allowance for the going value was erroneous. Eight per cent return on the investment of the company was held to be not excessive.

Consent of Abutting Owner Required to Construct Private Telephone Line Along Highway.

In *Benton v. Yarborough, et al.* recently decided by the Supreme Court of South Carolina, it was held that where one desiring to construct a private telephone line obtained permission from the county supervisor to construct the line along a public highway against the will of the abutting owner and then sued to enjoin the abutting owner from interfering with the erection of the line, an order of the lower court requiring plaintiff to remove such line would be affirmed. The court held that whatever rights were granted by statute to public corporations to construct their telephone lines over public highways, such rights would not apply to purely private enterprises.

Increase in Rates Authorized.

The Illinois Public Utilities commission, in the case *In re Winslow and South Wayne Telephone company*, permitted the company to put into effect increases in rates of all classes of service after it was shown that the company had suffered a deficit for the year 1923 and that the proposed increased rates would permit it to earn only 5.77 per cent on its book value. The court held that the practice of the company of making an annual charge for depreciation of 6 per cent on book cost of the property was reasonable.

Telephone Company Held not a Carrier Within the Meaning of Section 20-A of the Interstate Commerce Act.

The Interstate Commerce commission, in the hearing *In re Application of B. W. Eells*, held that the Telephone company was not a carrier within the meaning of that term, as used in connection with Section 20-A of the Interstate Commerce act. Eells applied to the commission for authority, under paragraph 12 of Section 20-A of the Interstate Commerce act, to hold the positions of officer and director of more than one carrier. The application was dismissed for the reason that the Telephone company was not deemed to be a carrier within the meaning of that act.



Too Much For Hiram

Lecturer: "Allow me, before I close, to repeat the words of the immortal Webster."

Haysced (to wife): "Land sakes, Maria, let's git out o' here. He's a-goin' ter start in on the dictionary."

Boise Cafeteria Opened

By One of Us

The Boise cafeteria is reopened after being closed for repairs for over a month. The opening was celebrated by serving ice cream and cake free to all. The room was enlarged and is separated into a dining room and kitchen.

The ceiling is in white and the walls are a light grey. The woodwork is painted in a harmonizing shade of grey and the linoleum is also grey. Four single windows are draped in bright cretonne with white fringed curtains, giving the effect of two large windows. There are five tables, four chairs to each, and they are painted grey and blue. Each table has a linen centerpiece of tan with blue crocheted edge, the blue and tan harmonizing with the colors in the window draperies. On the west wall there is a water fountain and a shelf holding silver, trays, glasses and other articles. At the end of the shelf there is a window where we put our soiled dishes through to the sink.

The rooms are separated by a six-hole steam table. On the end of the table is a large glass case holding the pastries. At the left of the steam table is the coffee urn and electric toaster. Next is the large six-hole electric range equipped with a fireless cooker, and it has two large ovens. At the end of the range is a built-in cupboard. On the right side of the room are the ice cream containers and the ice box.

I wish every one might see our cafeteria, always so clean and with flowers on the tables,

making the rooms so cheerful. We were without it so long that to say it is appreciated is hardly enough.

Our rest room was also refinished at the same time, being done in the same shade of grey as the cafeteria.

On Friday, July 18, we entertained at a three-course luncheon in honor of four operators from Meridian. After lunch the ladies were shown through the entire office and later went to a movie. The following were present at the luncheon: Mesdames Masterson, Gilbert, Hikes and Onwiler from Meridian; Mrs. Hazel Rohrer, Misses Jane Anderson, Katherine Wade, Maude Woodruff and Mary Springer. Everyone had a lovely time and our guests were more than complimentary in their praises of our office.

Miss Jane Anderson, chief operator, completed her ten years of service on July 27. When her service pin came there was also a very complimentary letter and a beautiful bouquet of rosebuds from R. G. Spore, Idaho traffic superintendent. Miss Anderson received many congratulations and wishes for more years of the same good service.

Miss Fern Ragsdale, local supervisor, was our latest victim of cupid. A few days before her marriage to Sidney Starns a party was given in her honor at the home of Mrs. J. C. Keltner, a former operator. During the evening Miss Ragsdale was presented with an electric coffee urn. We were sorry to lose Miss

Ragsdale and all of our best wishes for a happy life are extended to her and her husband.

A most enjoyable birthday party was given in honor of Miss Anita Forbes, toll operator. The Forbes home was beautifully decorated with flowers. The early part of the evening was taken up looking at the gifts presented. Ida Mae Forbes, small sister of our hostess, gave a solo dance and Anita Forbes played several selections on the xylophone. Prizes were awarded the winners in the guessing games, Miss Jane Anderson and Mrs. Hazel Daver being the lucky ones. Punch was served during the evening and later light refreshments. The table was handsomely decorated, the birthday cake with candles occupying the place of honor. The guests remained until a late hour and all had a most enjoyable time.

Thirty-Five Years Ago

FIXING the "voice wires" 35 years ago in Colorado was no boy's play, as a few of our present-day employees are willing to attest. In those days when telephone poles were as tall as flagpoles and there were enough cross-arms on each one to build a wagon bridge, and when a kit of tools consisted of a crowbar, a clawhammer and a pair of pinchers, it meant something to the general utility man to try and keep up the lines.

A few weeks ago Wallace E. Stephens, now an installer in Denver, tripped lightly into THE MONITOR office wearing a bland smile and a 35-year Service pin. He was proud of the emblem and wanted the world to know that he was also proud to say he thought the Telephone company the best company on earth.

"Wild animals, blizzards and unblazed trails through the mountains were the greatest menaces in early days," said "Steve" when asked to tell our readers something of the pioneering elements in his experience.

"Personally, I never had much trouble with wild animals," continued Steve, "but some of the boys did. I never met anything worse than a wildcat and a black bear—well, there might have been a few mountain lions, but they are cowards, and only pounce on you when you are asleep—and I didn't sleep much those days.

"One day I was out in the canyon west of Boulder when I heard something smashing through the underbrush. I was near a berry patch and it didn't take me long to guess what it was. I turned around, and there, within a few feet of me, stood a black bear on his hind legs; and they say that when a bear stands up like that he means business. Well I was full of business myself, and as I had the downhill side of him I began to make tracks few and far between. When I had gone as far as I could without stopping for air, I glanced around and the bear was nowhere in sight. Next day I got a gun and went back and got my repair kit.

"In early days I was exchange manager at Central City, Colorado, which also took in Idaho Springs. I recall one incident in particular when I met a bobcat face to face. I had gone out from Central to locate a break in the old iron wire. I was hob-nailing along the side of the mountain looking for trouble. I found it. One of our poles stood near a jack pine, and it was on this particular pole that the wire was dangling. I started up the pole when I noticed something moving in the tree beside me. It was a wildcat. I don't know which was scared the most—me or the cat. I was half way up when the cat jumped from the tree to the pole, just above me. I let loose all fours and hit the ground on the run. I went back in about an hour with a man and a gun and we cleared the trouble. He kept the skin.

"I was in Denver when there were but five inspectors and 12 linemen in the whole company. Louie O'Brien was here then, and was chief operator and toll line tester. Mr. E. M. Burgess, now our much loved vice-president, was chief inspector. In those days we walked to our trouble most of the time. We didn't even have bicycles. We had but one horse, and Dad Wiswall generally used him. My, my, how the boys have scattered—good fellows all.

"I well recall how pleased Mr. E. B. Field was when he made the first announcement which read like this: 'You can now talk to Leadville for \$1.00.' Putting the Leadville line over was some job. Mosquito Pass was no easy hill to negotiate. Poles were short and set about 16 feet apart, but even then we found that the heavy snows and the terrific winds would tear them down. Then came the underground cables over the pass; but that did

not end all of the trouble. The mountain rats would actually eat holes in the casings and short-circuit the wires.

"You know Denver was among the very first cities in the country to try out the telephone. I remember when we had but 1,100 subscribers, all told. York was the first exchange from central office. Telephones thirty-five years ago were considered a luxury in the residential section of the city, and there were but few used. One day Howard T. Vaile came along and proposed a campaign of soliciting for new subscribers. It was adopted and it wasn't long until several hundred subscribers were added, and thus the 'toy talking machine' which was considered a 'luxury' became the greatest convenience and necessity known to the people of the country. I am glad I cast my lot with the Telephone company and I am glad to say I am still with it."

Continued-on-Page-Steen

Jack Coffey, our own dear "Jack, the Singer," who left our toll department some months ago and went to New York with the A. T. & T., has been stumped at last. He writes this to THE MONITOR:

"I sometimes tell my friends in this section of the country of names like Saguache and La Junta, but I was completely outclassed by the name of the lake shown on the enclosed clipping."

Following is the name of the lake Jack refers to:

"Lake Chargoggagoggmanchauggagoggchaubunagungamaugg."

P. S.—The medical department wishes it distinctly understood that no claims for aid on account of broken jaws or twisted tongues will be allowed.

Enjoys The West

Miss Cornelia Smith, of the Engineering department of the American Telephone and Telegraph company, 195 Broadway, New York, recently spent a pleasant vacation visiting friends at Colorado Springs and marveling at the wonders of the Pike's Peak region. During a brief stay in Denver on the return trip Miss Smith visited THE MONITOR office and the staff enjoyed meeting her. Having looked over the land "Out Where the West Begins" and stretches onward, Miss Smith says she is now desirous of seeing where it ends and the next time she comes proposes to explore it as far as the Golden Gate.

A friend that you have to buy won't be worth what you pay for him, no matter what that may be.

Twenty Years' Service

Twenty years! Well, all we can say is that F. C. Davis doesn't look it. That is, he may look old enough to vote at the next election but he doesn't look up to twenty years with our company.

Records, however, don't often tell a fib, and they show that on August 22, 1904, Frank C.



Davis, a "broth of a boy," started to work in the construction department of our company. He has been in plant work all that time, and quite recently, as evidence that he has improved the time, he was appointed general plant supervisor of the Mountain States Telephone and Telegraph company. Incidentally, he is popular with the employees.

Enjoying Life in Wyoming

Accounting Department—Cheyenne

By N. Finnerty

On Monday evening, September 1, the Accounting Department of Cheyenne held its annual picnic at Lion's Park, about three miles north of town. It was arranged as a farewell "surprise" for Henry Woods, payroll clerk, who was leaving next day for Laramie, Wyoming, to enter the State University for the full college course.

At 5:30 the unsuspecting Henry was asked to walk to the Air Mail Field to see a new plane, but what he saw was a company truck loaded with employees, ice cream freezers and eats of all kinds.

The best workers had been taken to the Park by Mr. Andrews and when the rest of the bunch arrived, tables were set, wienies roasted and hot coffee ready.

There was no program except eating and this took so much of everybody's time that we used daylight, moonlight and car lights for it. When a very brief pause was made before serving the ice cream, Mr. Pilloud arose and presented Mr. Woods with a leather album, containing autographed pictures of all the employees of the Department. In accepting the gift, Mr. Woods assured us that he had enjoyed our company and was very glad to have pictures of such good looking people. When we were sure that we had sampled everything on the table, the packing commenced and in a few minutes the homeward trip was begun—some returning with Mr. Andrews, others on the truck, while six of the girls decided to walk in with one of our visiting Auditors.

The success of our picnic and the speed and secrecy with which all arrangements were made was due to the efforts of the entertainment committee, consisting of Mrs. Waitley, Kathryn Green and Frank Taylor.

Cupid certainly let summer slip away from him up here in our quarters and things went on the same as ever until September 4, when Miss Gladys Tyson slipped away to Denver and was married to Larsh H. Dahlgren. Miss Tyson has been in this department since its opening, first as settlement clerk and now as subscribers accounts clerk. Upon Mrs. Dahlgren's return from Colorado Springs, she was presented with a beautiful hammered silver console set by the employees. She was so pleased with it, that "words" could not express it.

Mrs. Dahlgren will continue with us and has had her name plate changed already.

Miss Kathryn Green, toll billing and settlement clerk, who has been correspondent from our Department for *THE MONITOR* for the past two years, asked to be relieved at our last personnel meeting and Mr. Pilloud appointed

the writer and Mrs. Waitley as assistants.

Miss Green is about the busiest girl in the office, having volunteered a cut in her Department to bring up Productive Units and cut down costs. With so much work, naturally she does not find much time for "news writing" but has been responsible heretofore for many of our appearances in *THE MONITOR*.



Wyoming to New York

Parco, Wyoming, August 23, 1924.

C. L. Titus, Wyoming Manager,

Dear Sir:—Along with the general good service which your local office in Rawlins has given us the past year on both local and long distance business, we wish to commend especially the exceedingly prompt and efficient service rendered us on August 20 when unusual circumstances made it desirable for us to get in communication with our Home office in New York on very short notice. The writer called the local office in Rawlins at about 11:25 a. m. and asked if telephone connection could be arranged for and completed with New York within the short time then left before noon, advising your chief operator that the call would be entirely useless unless it could be "W. H." and our business transacted before 12 o'clock.

As a result of the prompt action of your local organization and the excellent service rendered by your connecting exchanges in Denver, Colo., Chicago, Ill., and elsewhere, we were put in communication with our Home office at 11:50 a. m., accomplished our business well before 12 o'clock, and we feel that we were very much accommodated thereby.

Yours truly,

THE J. G. WHITE ENGINEERING CORPORATION.

(Signed)

ARCH ROBISON,
Construction Superintendent.



Helena Operators' Plunge Party

By Betty Lyle

Sorry for everyone who missed the Helena operators' annual plunge party at Broadwater a few weeks ago.

Several cars full of curly-haired girls went out for a swim, but alas! Mr. Richmond donned a bathing suit and was in the very height of his glory after he had ruined about \$50 worth of marcel and curls. Never mind, girls, the fun was worth more than \$50.

But this isn't half of it, folks. After showing everyone what fine swimmers we were, we scrambled back into the cars to go to Mr. and Mrs. Anderson's home where we had some of the best hot biscuits and raspberries one could imagine. If you don't believe that, ask Mr. Bossler, who almost won the biscuit-eating contest. Of course, we had other things, but biscuits seemed to be most interesting until Mr.

Richmond found some grape juice—you can't judge the contents by the bottle. It really was grape juice.

We certainly had a good time and hope we can coax Mrs. Anderson to make some more biscuits before next summer.



Service at Santa Fe

Mr. Don Hunsaker,
Mtn. States Tel. & Tel. Co.,
Santa Fe, N. M.

Dear Sir:—As you may know the program of the State Highway department of Santa Fe is just at present at its peak as far as the amount of work that is being handled in various parts of the state.

The efficiency of our organization is, to a great extent, dependent on long distance service as far as getting immediate action is concerned. We are stopping in our mad rush long enough to express our appreciation to you for the service which your own exchange and long distance operators are giving us. It is actually a pleasure to use your service in any part of the state.

Yours sincerely,

(Signed) WINSTON SMITH,
Assistant State Highway Engineer.



A Hundred Years to Come

August 7, 1924.

Mr. H. E. Brewington, Manager,
Logan, Utah.

Dear Mr. Brewington:—Having had to call many committees together for the Centennial celebration for the past six months, and having the Housing committee at the Chamber of Commerce, I realize what great service your company, with their efficient staff of operators have rendered us. We appreciate it very much and desire to take this opportunity to express it. Please convey to the operators our hearty thanks for the way they co-operated with us and tell them to overlook our hasty and quick replies sometimes and the clicking of the receiver. We had to step lively and many times tried to rush Central more than we should have done.

We hope at the next Centennial they will have the opportunity to witness it and let some other girls be the operators.

Very respectfully,

LOGAN CHAMBER OF COMMERCE.
(Signed) M. R. HOVEY, Secretary.



Always Trouble, Trouble!

Ocean City, N. J., Sept. 3.—Flying fish believed by anglers to have been driven inland by heavy storms at sea, invaded this city and Cape May today, breaking down telegraph wires in their flight and crippling service. It is believed there were several hundred of them.

THE MOUNTAIN STATES TELEPHONE AND TELEGRAPH COMPANY

GENERAL OFFICE 1421 CHAMPA STREET, DENVER, COLORADO

FREDERICK H. REID
President

J. E. MACDONALD
Secretary and
Treasurer

RODERICK REID
Vice-President and
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

J. C. ALBERT
Assistant Secretary

G. MAVOR
Assistant Secretary

Accounting Department

RODERICK REID
Vice-President and
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

B. F. FISHER
Equipment Traffic Engineer

D. L. TABER
Toll Line Traffic Engineer

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

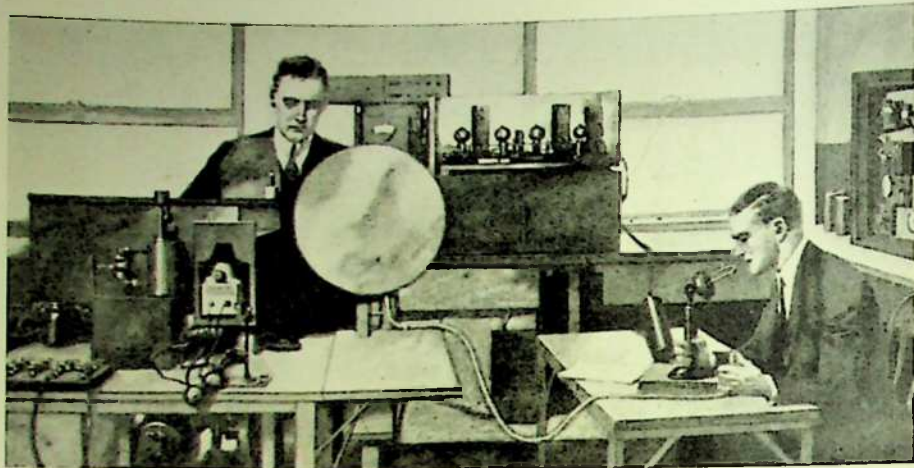
N. O. PIERCE

RODERICK REID, Vice-Chairman

H. T. VAILLE, Secretary

DR. C. B. LYMAN, Medical Director

DR. N. A. THOMPSON, Associate Medical Director



In the Bell System laboratories speech sounds are recorded on the oscillograph with a view to their subsequent analysis

The Service of Knowledge

THE youthful Alexander Graham Bell, in 1875, was explaining one of his experiences to the American scientist, Joseph Henry. He expressed the belief that he did not have the necessary electrical knowledge to develop it.

"Get it," was the laconic advice.

During this search for knowledge came the discovery that was to be of such incalculable value to mankind.

The search for knowledge in whatever field it might lie has made possible America's supremacy in the art of the telephone.

Many times, in making a national telephone service a reality, this centralized search for knowledge has overcome engineering difficulties and removed scientific

limitations that threatened to hamper the development of speech transmission. It is still making available for all the Bell companies inventions and improvements in every type of telephone mechanism.

This service of the parent company to its associates, as well as the advice and assistance given in operating financial and legal matters, enables each company in the Bell System to render a telephone service infinitely cheaper and better than it could as an unrelated local unit.

This service of the parent company has saved hundreds of millions of dollars in first cost of Bell System telephone plant and tens of millions in annual operating expense—of which the public is enjoying the benefits.

Bell System

One Policy - One System
Universal Service



And All Directed Towards
Better Service

The Mountain States Telephone and Telegraph Co.