

# A Radio Romance

By RAY FROST

**T**HE tremendous, world-wide interest in radio has brought to at least one man the realization of the dreams of a lifetime.

Nathaniel Baldwin, a devout Mormon, was the inventor, ten or a dozen years ago, of a highly sensitive telephone receiver, but until the advent of radio broadcasting, never experienced the least difficulty in meeting the demand for his instrument at his little hillside factory on the outskirts of Salt Lake City—that is, when he was able to raise the money for material. Now he is swamped, buried, overwhelmed with orders.

From every state in the union, every civilized country, the farthest islands of the sea, orders for Baldwin's radio headsets have poured in until there are now on file in his shanty office unfilled demands for more than 200,000 pairs.

Baldwin's modest plant lies against the base of the Wasatch Mountains, 23 over-size Salt Lake blocks to the east of the Mormon temple, and 35 to the south.

A lane, jammed with the motor cars of his employees, runs above his plant, which has been added to from time to time, until it now extends down the lot in a long row of narrow wooden buildings. A roaring mountain stream runs past the workroom windows at one side, and at the opposite windows the fragrance of peach and apple trees drifts in. One is struck with the thought that here in this clean and airy sunlight would be a good place to work.

Baldwin, the man, is a product peculiar

to the region in which he has been born and reared, modest to the point of diffidence. In his office is a drafting table in lieu of desk, and two or three plain chairs. On the table are the Book of Mormon, Doctrine and Covenants and Pearl of Great Price, standard works of the Mormon faith. The covers of these volumes harbor no dust.

Baldwin leans against the drafting table

luxurious travel or life without hard work, and all he asked was a chance to earn his way.

To some, Provo might have seemed a small and uninteresting town, even though it lay between the dimpling fresh waters of Lake Utah and the base of lofty Timpanogos, with the giant Indian figure lying flat on its back along the crest, but to young

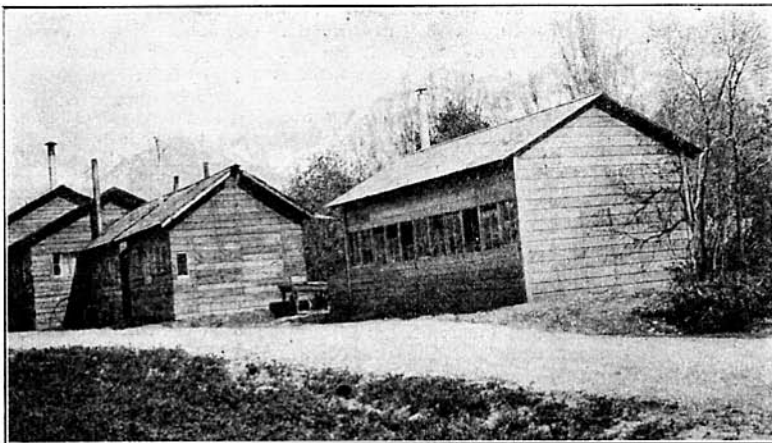
Nathaniel it was a golden city of Baghdad. Among its enchanted streets he wandered in the heat of midday, and before the sun had set had found a place to live in exchange for a few hours of work morning and evening.

In due time he graduated from the school, and having earned and saved sufficient money to take him to Palo Alto, in California, repeated the process at Leland Stanford, Jr.

The world looked bright when, at the age of twenty-six, he returned to B. Y. as Professor of Physics, but the end of his second year in that capacity saw him dismissed and discredited in the eyes of his fellows.

Brigham Young University is a church-controlled institution, and after several warnings, the authorities had seen fit to discipline Baldwin for a lack of discretion in his discussions of a certain ancient principle which it had seemed best to abandon. The leaders of the church had declared against the continuation of plural marriages, and the instructor had failed to temper his remarks in accordance with their directions.

A period of bitter struggle followed for  
(Continued on page 724)



The Home of the Baldwin Phone. View of the Hillside Factory Near Salt Lake City, Where Nathaniel C. Baldwin Supervises the Manufacture of His Phones.

and smiles in a guarded, friendly fashion as he talks. He was born at Fillmore, Utah, in 1878, and as a boy set out on foot for Provo, 120 miles away, on the chance of finding an opportunity to work his way through Brigham Young University. He had no money for fare nor tuition, and was none too well clad, but the boy whose name was destined to become so well known in the future world of radio, worried about those things not at all. He knew nothing of

## Broadcasting From San Francisco

By OLIVER W. TUTTLE

**"K**UO"—the radiophone broadcasting station of *The San Francisco Examiner*—is the Big Brother to every radio fan in the West.

Located on top of the Hearst Building, Third and Market Streets, this station serves a multitude in the western states and brings cheer and entertainment to thousands in remote sections.

Not alone because of its power and extensive radiation is KUO a favorite with the radio public, but its popularity is also gauged by its variety and extensive programs of concerts and other data broadcasted.

Early last March this station spun into its initial activity. Previous to its birth, scant attention was given radio telephony by the general public. True, many thousands possessed receiving sets, but the wave of enthusiasm was not manifest.

*The Examiner*, realizing the possibility of serving further the public by the use of radio, established KUO. This was only after an exhaustive survey of radio and all its details, which continued over a period of many months.

A radio page was established in the newspaper with the advent of its broadcasting station, and suddenly the public pulse was awakened to the possibilities of this new scientific wonder. Practically over night the "craze," as it has been termed, swept the west and now every home and office is in the market clamoring for receiving sets.

Radio dealers frankly declare that the activity of *The Examiner* was the greatest single stroke for radio in the western states, and through the enterprise of that newspaper radio has been made a part and parcel of the life of western citizens.

Every day KUO broadcasts to its vast army of listeners-in. All anxiously await its entry on the air to get late news bulletins, baseball scores, weather and crop reports, the summary of the financial market and the extensive concert or other music.

KUO has many achievements to its credit. For instance, the following wire was sent by

C. M. Rice, Jr., Worcester Mass., and speaks for itself: "I heard KUO radiophone San Francisco on detector, without amplifiers, about April 23, four afternoons in succession and one night afterwards. The conditions were very bad, but I managed to hear the music quite clearly. My set consists of three honeycomb coils and two variable condensers and four stages of audio frequency amplification. My aerial is about 225' long. San Diego in the south, and Seattle in the north and ships 1500 miles at sea have all reported picking KUO up perfectly."

This broadcasting station conducts a service unusual in scope. On 485 meters it serves the official U. S. weather forecast three times a day. This is vital to the farming districts of the great Pacific Slope and is likewise important during the winter season to the mariners off the Coast. On 525 meters it conducts a direct service to the pilot boat, cruising 10 miles off the Golden Gate, delivering to the navigators who board the ship entering the harbor, necessary information as to the arrival of craft, and instructions to the pilots, which is an aid to navigation. This service is looked upon as a big facility to the port of San Francisco, as well as an aid to commerce. It is likewise a safety measure in time of distress in that prompt assistance can be given craft any distance away.

Concerts, news, stock quotations and  
(Continued on page 726)



The Studio at KUO Broadcasting Station at San Francisco. Note the Signal Light Above the Microphone. This Light Instructs the Performer.

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general use by telephone companies. It may have been too sensitive for the average ear, or it may have been that its greater cost kept down the volume of its sales.

At any rate, until the advent of radio telephony, Baldwin's factory, with the addition of another small building from time to time, was adequate for the manufacture of all the receivers he could sell.

Then came the tremendous interest in radio, and with it came the avalanche of orders that since November has exceeded the capacity of his plant by the enormous total of 200,000 sets.

An idea of what it may mean when an inventor's dream comes true may be had when it is stated that the filling of these surplus orders has been contracted on the basis of a royalty, said to be two dollars on each set.

Meanwhile Baldwin will go on supervising his little factory, helping to get out its normal production of 150 sets each day.

Nathaniel Baldwin is a modest and unassuming man. With flannel shirt open at the neck he stands with his elbow on the drafting table in his little office, smiling in a dazed sort of way as he talks. One could wish he were not quite so modest; then he might have been persuaded to pose for an unconventional picture.

## Broadcasting from San Francisco

(Continued from page 623)

market advice are broadcasted on 360 meters from 3 to 3:30 P. M. and 5:30 to 6:45 P. M. daily and on Sundays between 5 and 6 P. M. Personal talent rather than "canned" music is broadcasted. A special radio studio, the first of its kind, erected west of Chicago, and constructed especially for radio activity, was built on top of the building. In this house of magic is staged the concerts. The building is constructed of tranelate, an asbestos composition, fire-proof though non-metallic and the acoustics of the room are particularly good. Adjoining the studio is the operating room, where two transmitting sets are located. A special room adjoins the operating room, where the batteries and motor generators are located. In the studio every appliance known to radio engineers as an aid to transmission has been installed. Pilot lights guide the artists and special effects are arranged for various classes of musical selections.

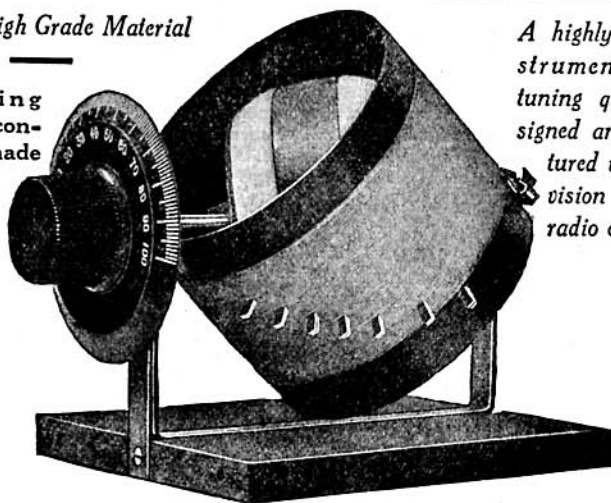
The "T" type antenna is 300' high and 85' long with an 80' lead in.

Many novel stunts have been staged as radio experiments by KUO. During the great Shriner parade, an army signal corps vehicle with a transmission telephone set traversed the line of the parade and the radio editor of *The Examiner*, sitting in the vehicle, was able to talk direct to the operator of the station on top of the Hearst Building. For one hour and forty-five minutes a steady conversation was maintained by voice, in which the radio editor described the features of the parade as a news story, which was copied by stenographers in KUO's operating room. Likewise, the description of the parade with all its colorful effects, as spoken into the transmitter by the radio editor in the moving vehicle was audible to thousands of persons confined to their homes or in their offices, both in the city and in the country, who were unable to witness the great spectacle.

KUO is the official broadcasting station of the State Board of Health, State Board of Education and the San Francisco Bar Pilots. Each week the bulletins of interest to the general public from the Health De-

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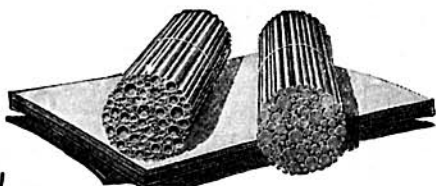
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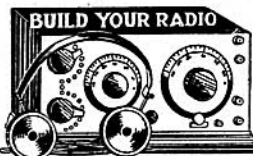
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partment of California, as well as from the State Board of Education, are transmitted by this station.

## Broadcasting to the Ships at Sea

(Continued from page 628)

ficial for the men at sea, will do well to turn their attention to this new practical method of both diversion and education. One can even imagine the designation of certain ships as travelling Ocean broadcasting stations. And if directional and secret radio ever becomes a possibility, one can visualize the flagships of certain lines sending exclusive little chats to their own ships. But the sea is too big a brotherhood for that to become a possibility for other than purely commercial messages.

Practical observations show that broadcasted radiophone signals travel greater distances over sea than over land. Operators on the Transatlantic routes, who occasionally go down to the short-wave schedules, report hearing Newark clearly at distances of 1,700 miles and over, to the eastward. He has several times been picked up by vessels on the west coast of South America, or the coast of Peru. Vessels in the Gulf and West Indian waters hear him occasionally. An operator of our acquaintance coming aboard his ship in Tampico with a cargo of the product of Mexican distilleries in his system, happened to pick up the receivers and, hearing a lecturer in some northern city saying, "You must try it again and yet again" promptly went ashore and took the good man's advice.

With radiophone broadcasting at sea for purposes of entertainment will come radiophone conversations between ships for commercial and other purposes. It will be extremely interesting to watch the evolution of the use of radiophone for and by the ships at sea.

## Anacostia Naval Air Station

(Continued from page 622)

the band from the Marine Corps of the Navy Department introduced its concerts, on May 31 of this year, in excess of 2,000 voluntary letters have drifted into Washington complimentary to the character of its musical renditions. These communications have originated in 16 States, from Maine to Florida, with scattering testimonials from Ontario and Quebec, in Canada. The weekly program, invariably given on Wednesday evening, begins at 8:30 and continues for one hour. Fittingly, its renditions conclude with "The Star Spangled Banner." Thus the national anthem is broadcasted through space for a radius of hundreds of miles of Washington, the melodious strains drifting into the isolated farm home as well as that of the city-dweller.

Structurally, what manner of radio station is 'NOF'? This question, in perhaps different language, has been pondered in the minds of thousands of radio amateurs who have so frequently tuned their receiving sets to 412 meters. Therefore, a brief description of this 100 per cent. radio laboratory is not amiss. Its multiple-tuned antenna is of outstanding note, admitting of a variation in wave-length from 190 to 3,000 meters.