

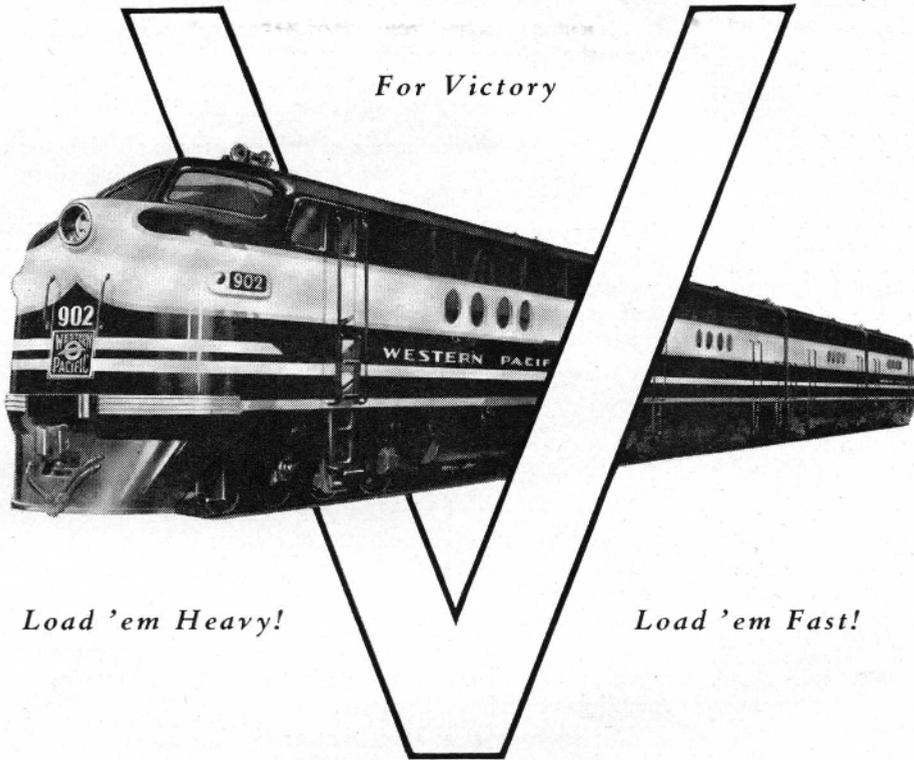
The HEADLIGHT



VOLUME II

FEBRUARY, 1942

NUMBER 2



For Victory

Load 'em Heavy!

Load 'em Fast!

WESTERN PACIFIC WILL — “KEEP 'EM ROLLING,” so ... —
OUR BOMBERS WILL — “KEEP 'EM DROPPING,” so ... —
OUR NAVY WILL — “KEEP 'EM SINKING,” so ... —
OUR ARMY WILL — “KEEP 'EM FALLING!” ... —



Now — More Than Ever!



THE HEADLIGHT

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GUIDE

	PAGE
"V" FOR VICTORY	Cover
CIVILIAN DEFENSE	3
PEOPLE AND THINGS	4
BUILDING THE W. P.	5
FEMININE FREIGHT	6
AIR BRAKES	7

EDITORIAL

UNITED STATES—UNCLE SAM—has been likened to a sleeping giant! A sleeping giant with tremendous strength—ability—and other natural attributes. These are merely potential threats and not effective as long as they lie dormant. As long as this giant sleeps, peoples of less strength—less ability—who are awake and functioning, will forge ahead.

Now this giant—UNCLE SAM—has been aroused . . . has begun to flex his muscles—tighten his belt—and set a course for action. But before all the tremendous resources of strength and ability can be made really effective—a few vital things must be done—and quickly! All-out efforts by everyone, everywhere, are essential.

A few of our politicians must be made to forget politics—think of this crisis as a crisis—and not how they can swing a government contract for a friend or relative, at a profit to themselves.

A few erroneously called "labor leaders" must stop hampering progress about some prospective loss of labor conditions, and if it's necessary—show them the light with a club!

Employers who take undue advantage of labor in these critical times must also be dealt with in the same effective manner.

The morale of the people of this country is all right—all the people need is a few quick changes in a few vital places—and with leaders who have the interest of the country at heart instead of personal gains.

Then this UNITED STATES—our UNCLE SAM—will really wake up, and when he starts to swing in earnest—whether it's so-called politicians, labor leaders, or employers that are holding back our progress—*somebody is going to wake up later—with a headache! And so is the Axis!*

THE EDITOR.



WISDOM, INC.

In regard to this business of railroading, I'm neither an optimist nor a pessimist. I belong in the ranks of the confirmed realists. I see only too plainly what is left in the railroads' glass. And I find my thoughts turning toward some way to refill it—against the thirst of those hot, dry days of depression that may return our way.

It requires little more than a glance to value the contents of the railroads' glass today. We see a potent mixture of contradictions; a concoction of brilliant highlights and black shadows.

We see a physical plant that excels, in capacity and efficiency, anything mankind has ever known before. More than eleven billions of dollars have been poured into its improvement during the past two decades. Almost a billion of that amount has been spent to increase capacity and efficiency since the beginning of senseless slaughter in Europe. And so, today, this nation can proudly boast that it has the best railroads in the world.

We see modernized operating practices that have kept pace with the improvement of the physical plant. They insure the most effective use of the best railway plant in the world.

We see the railroads organized to cope with any emergency. We encounter new machinery functioning smoothly in the handling of car service matters, port traffic, military movements, peak loads of commercial business and a thousand other problems confronting the industry.

We see friendly and whole-hearted co-operation between the railroads and the shippers; co-operation that, for the first time expresses the interdependence of industry, agriculture and the rail carriers. Here we find recognition of the fact that the American way of mass production and mass consumption must be linked by mass transportation—that only the railroads can provide.

We see a brilliant record of achievement that has no parallel in all the history of mechanized transportation. (By Ernest E. Norris, President, Southern Railway System, *The Railroad Journal*.)

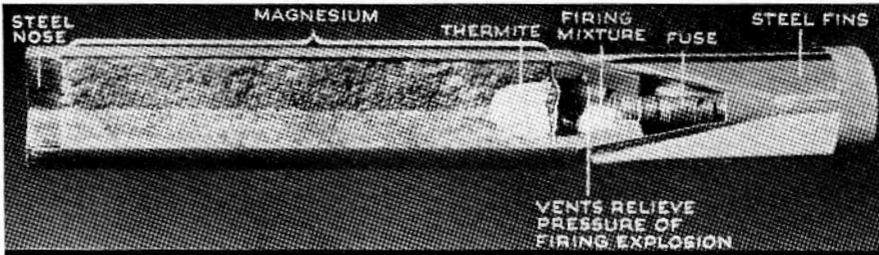
CIVILIAN DEFENSE

(Editor's Note—Early in 1941 the FBI sent two men to England who remained there for six months studying civilian defense as it existed in that country, and its functions both under direct attack by the enemy and resultant conditions which followed the raids. These gentlemen returned to America just prior to war being declared by this country on Japan and conducted a short school in detail, instructing 14 key men of the FBI in this school, who in turn were sent out to the Pacific and Atlantic coasts where they instructed law enforcement agencies on experiences of the English. A total of only 30 civilians throughout the United States were fortunate enough to be permitted to participate in these schools, which were conducted for law enforcement officers. Martin C. Kidd, our general agent in San Jose, was among the fortunate few attending these schools, and the following article is extremely timely and authentic information. Read it carefully, and remember the important facts; also take cognizance that, should a single bombing occur in any of our coastal cities, conditions similar to those now prevailing in England will surely prevail.)

By MARTIN C. KIDD

England has been blacked out entirely since September of 1939 with the exception of industrial plants, which are blacked out to an extent, but, due to the necessity of these plants being on a 24-hour basis, it is impossible to black them out entirely and the light exposed from such industries is on continuously. Every dwelling of any character, whether home, hotel or apartment house, has two or three rooms blacked out in their entirety. No light bulbs are left in any rooms except those rooms blacked out. The most practical material used for blackout is a fibreboard or $\frac{1}{4}$ -in. plywood placed over the entire window sill on the inside, not on the outside. Scotch tape is used in most instances, but some use tacks.

All traffic lights, railway lights in yards and stations, and other lights on the outside are hooded with a 2-foot hood. Automobiles are allowed to burn three small strips of light $\frac{1}{8}$ -in. x 2-in. long in their headlights, the rest being blacked out entirely. This light will throw a beam 10 feet in front of the automobile. The bumper and fenders are painted white with a 2-in. strip on the body around the car painted white. All obstructions in the street, curbs, poles, turns in the road, etc., are painted white. All traffic officers wear white coats, white helmets, white gloves, and their only signal is a lantern with a red beam. All street signs and road signs are removed in England. The English people are compelled to spend 48 hours per month on watch, practically all of which is spent at night.



Practically every description of bomb has been used in England, including fire bombs. Regardless of opinion to the contrary, it is the consensus that the only way to fight a fire bomb in the individual home or plant is with water. The universally used fire bomb weighs 2-2.10 lbs., is 14 in. long, which includes a tail of 5 in., is 2 in. in diameter, and is made up of a shell $\frac{1}{2}$ -in. thick of magnesium, inside of which is a core 1 in. in diameter which is filled with a substance known as thermite. This bomb goes off at contact and when it lights, the thermite in the core of the bomb starts to sputter at a distance of approximately six to eight feet from wherever the bomb lights in all directions from the bomb. This sputtering thermite is nothing but liquid aluminum which is sputtering at a heat of 3300° F. and will continue to sputter for 1 minute and 50 seconds. It is impossible to put out thermite, the result being that one should never go near this bomb for the first two minutes due to this fact, and secondly it has been found that one out of about fifty fire bombs contains a small charge of TNT which will explode (if in the bomb) within 5 minutes from the time the bomb lights, so naturally the English people do not go near a bomb until after 5 minutes have elapsed. The procedure then is to approach the room with a hose, using any form of protection in front of you, such as a table top or chair or anything to keep the heat away and do not pay any attention to the bomb, but put the fire out which the thermite has started due to the sputtering. After the fire has been put out, then spray the bomb with a fine spray. This will have a tendency to burn the magnesium faster. Do not put a stream on the bomb as water on the magnesium still burning causes a chemical reaction to occur which causes it to explode. The method universally used in England is what is known as a "stirrup pump" consisting of a 30-foot hose coming from a hand-operated pump over a portable pail which contains about five gallons of water. This pump requires three people to operate, one to handle the hose, one to pump the water from the container, and one to bring the water in buckets from generally the bath tub. Every bath tub is full of water in England at all times due to the fact that they do not rely upon municipal water supply due to its being put out of commission so easily. The entire bomb will burn at a maximum of 20 minutes and it must be borne in mind that the most important thing in fighting a fire bomb is not in the attention paid to the bomb itself, as much as to the fire which it causes.

There are many types of destructive bombs used in modern warfare, the one doing the most damage to civilian population in England being that of the blast bomb which is composed of 90% TNT or dynamite and 10% steel. These bombs weigh from 200 to 4400 lbs., the average weight being 2000 lbs., and can be set to go off anywhere from 100 feet above the ground to 96 hours after contact with the earth. The reason they are so destructive is that the damage is caused by the so-called blast. This blast creates a vacuum when the bomb explodes which, at the point of contact from a 2000-lb. bomb, creates a pressure of 204,000 lbs. per square inch. This pressure goes in all directions—up, down, and all sides. It dissipates itself on this particular bomb to 30 lbs. at 100 ft., 16 lbs. at 125 ft., 9 lbs. at 150 ft., and its strength is gone at 200 ft. However, to give you some idea of what this pressure means, 7 lbs. of pressure per square inch will kill a human being. The pressure has a tendency to demolish anything with this particular bomb within a radius of 150 ft. and, due to a vacuum being made at contact, it follows that this vacuum must be re-filled with air so the pressure that goes out causes a great deal of havoc and when the pressure comes back, it has the same pulling tendency that it had on the outward movement, and, in the case of a building, should it only shatter the windows and shake it when it went out, it would undoubtedly pull the sides of the building down when the air comes back into the vacuum.

This is one of the reasons for stating you should blackout your house from the inside, covering the whole window, as there are more people killed in England by flying glass than are killed from bomb splinters. Your window blacked out on the inside with the material suggested will in most every case have a tendency to stop flying glass. When these bombs break up and explode, they explode into small particles of steel weighing about one ounce and have a tremendous velocity (7000 ft. per second—which is twice as fast as a bullet from a .38 caliber revolver) but have very little penetrating power although, due to their velocity, it is possible to kill a man a half a mile away from where the bomb hits. Here again, the material used in your blackout will have a strong tendency towards stopping these splinters.

These bombs are put into airplanes with the fuse in them but not set. There are 257 known ways to fuse a bomb and in each instance the fuse is set by the aviator in the plane just before they are dropped out of the plane. The fuse starts to work in about 6 seconds after being released. There have been about 50,000 large bombs dropped in England of which two-thirds were defused by the English before they went off and one-third of which did not go off due to mechanical defects. Wherever a bomb lights and does not go off is what is known as a restricted area and all industry as well as civilians are moved from that area until such time as the fuse has been taken out of the bomb. One out of every 10 people defusing these bombs is killed in such work.

(Continued on Page 5, Col. 3)

**PEOPLE and
THINGS**
By AL BRAMY

Six hundred thousand troops moved to West Coast! . . . Scare headlines in the nation's newspapers with realms of praise for railroad handling. Syndicated columnists tell of smooth efficiency, with troops moved in record time, with, at the most, only minor disruptions in regular schedules.

Serve in Silence—how aptly lived up to by the railroad people! How many thousands of us working in military bureaus, operating, auditing or traffic departments, had full or partial knowledge of these movements, yet—we Served in Silence—and the general public was kept unaware of these momentous movements. A wise silence that may have saved lives and property.

Others can well sit up, take note and follow suit—*Serve in Silence!*

* * *

Seattle reports F. B. Stratton returned from a California trip raving about the summer weather . . . with such a bad cold he couldn't speak above a whisper. Pete Citron a war casualty. Was watching a Fire Warden operate and received a misplaced fire hose nozzle on his schnozzle. (That's his story.)

W. P. deeply regrets passing of two old timers, George Hooper, engineer of "Hercules" and Thomas O'Grady, agent at Hayward. Both were 65.

Fred Bagge, (T. F. & P. A.) while escorting a train met one of his Army officers of World War I. Lots of reminiscing resulted and comes to light the time Fred was assigned to "K. P." duty for attempting to bribe a sentry to let him sleep in the guardhouse. He had heard the food was better there.

* * *

The Sacramento Charles Harmons had two open houses to celebrate moving into their beautiful new home . . . the second to take care of the overflow. The Club extends congratulations on their 15th wedding anniversary.

Marysville Milt Rowe fighting hard to get back on his feet after a serious operation. We hope for his complete recovery. Charles Carpenter recuperating — and back on the job hale and hearty are Emmet Dillon and LeLon Wagner.

Under supervision of Chief Engineer Richards, the Sacramento Northern is laying 2.8 miles of track north of Chico to serve the new Army Basic Training

School. It's a \$5,000,000 project to house 2500 flying cadets.

* * *

Pittsburgh Office 100% for the Red Cross fund . . . Oakland recently opened handsome passenger office on Broadway. The East Bay boys have heard so much about our new General Offices—would like John Coupin to show 'em around . . . with luncheon at Schroeders thrown in?

Salt Lake's Charlie Fischer had an operation but Prexy Walt Mittelberg says details are "better left undisclosed." Tom Barry back in his usual haunts after extended illness.

A carload of Red Feathers: To the W. P. Amusement Club of Sacramento . . . have purchased to date almost \$1,000 in Defense bonds from their surplus treasury.

* * *

Bob Runge bought a new car seven hours before "no more new car edict." Jesse Holmes predicts Bob will be using his bicycle soon to commute between Oakland and San Mateo. Localite Vince Howard passed out the cigars to everybody in the General Offices (but the Press) announcing the arrival of Baby John. (We *do* smoke cigars, Vince.)

It's our three musketeers again! Johnny Skinner, Don Burgess and Art Allen recently home from Hawaii with their Army discharges are back in again . . . Bruce McNeill, telegraph operator at Keddie, inducted into the Army . . . Dick Gollan of Freight Traffic listed as 1-A with February as the deadline to report "in person."

* * *

Why a sugar shortage? The supply of sugar we had in peacetime may be available now, but did you know every time a 16-inch shell is fired, the yearly consumption of sugar of 10 persons is blown into the air? The amount of smokeless powder needed to fire that shell requires the equivalent of half a ton of sugar.

A surprise announcement from Al McQuaid of Transportation . . . bought his Love a diamond engagement ring—and blushes prettily every time it's mentioned.

Says Bob Failing of Keddie: "No one in town has any babies, or suffered any accidents, or is going courting. Needless to say we have been busy, besides trying to keep warm in a cabin made of rough lumber and cardboard. When the temperature outside and sometimes inside is 5° below zero, certainly keeps a person from boredom."

* * *

The *Headlight* was in on the following telegram to President Roosevelt: "The National Council of Industrial Editors representing 1,200 employee papers which reach more than fifteen million workers in all industries, offer you complete co-operation in war effort. We are ready to begin intensive nationwide publicity drives to insure workers' loyalty and maximum production, or to carry out any other plans as requested."



BUY United States Defense Bonds.

SPORTS IN REVIEW

The Bowling League continues to headline "outside" activities, with eight teams vying for honors. A driving finish in the last few weeks of the first half saw the Traffickers, made up of Jack Hyland, Walt Mittelberg, Bud Gentry and Manuel Bettencourt, ably assisted by Gil Hibson, alternate, nosing out the Treasurers for first place.

The second half now well entrenched finds a complete reversal of form with Traffickers and Treasurers battling for cellar honors. Transportation team of Charlie Craig, Paul Shelmerdine, Al Bramy and Dave Spowart assume an early lead with 7 wins against 2 losses as THE HEADLIGHT goes to press.

The Big Ten individual standings are as follows:

	Games	Avg.	High
1. Harlan	12	173	253
2. Corven	51	170	221
3. Heagney	48	167	232
4. Hyland	48	163	232
5. Craig	45	162	231
6. Mittelberg	27	160	220
7. Gentry	45	158	220
8. Lewis	45	154	234
9. Shelmerdine	42	151	229
10. Murphy	48	148	188

HOLDERS of the "200" or "225" medals who are outside the select first ten include Kearns 229, Moran 231, Geddes 231, Ferguson 214, Fox 213 and Fowler 210.

S. F. Call-Bulletin (Jan. 29, 1942):

"Three misses who perform quite informally each week while the Western Pacific kegglers pursue strikes 'n spares in league play, signed their team sheet as Peggy McDermott, Sis Dillon and Eleanor Emerson, didn't realize they made bowling history the other night at Broadway. For all three ended their third game with the exact score of 105!"

All of which doesn't tell it completely as the *Call* reporter missed a better story. Bowling against the three girls mentioned above was Pearl Mayfield, who also ended with a third game of 105! And all four girls come from the Car Record office!

After a long period of inactivity due to blackout restrictions the Flyers again entered into competition by entering the strong S. F. Recreation League as the only company team in action in the lower divisions against the powerful basketball clubs.

In their first league game against the Vandal A. C. the Flyers had their wings clipped to the tune of 48 to 25. By dint of practicing the Flyers are back in the proverbial "pink" and expect to give their club opponents some interesting evenings.

Coached by "Gin" Gallatin, the squad includes Ken Reilley, Al Bramy, Hal Furtney, Phil McElmurray, Bob Salkeld, Bruce Heilman, Dick Patterson and Tony Quill.

BUILDING THE WESTERN PACIFIC

By C. L. GERMANN

Part five:

In conjunction with local passenger movements and in 1910, through passenger runs from Salt Lake to San Francisco, it was necessary for the Western Pacific to inaugurate steamer service across San Francisco Bay for handling passengers.

The first boat acquired by the W. P. was the famed *Telephone* which, prior to W. P. ownership, had compiled a stirring record on the lower Columbia River.

The *Telephone* was purchased from J. H. Middleton of Portland, Ore., in 1909. Bill of sale dated July 15th, 1909, showed cost of steamer, \$24,500; cost of remodeling for W. P. ferry service between San Francisco and Oakland, and transporting from Portland, \$42,215.57, making a total cost to the W. P. of \$66,715.57.

In answer to the continued demands of settlers of the lower Columbia River to break a monopoly created by a powerful transportation company which was charging exorbitant prices for freight and passengers, the *Telephone* and *Telegraph* were built in 1884, powered by engines built at the Iowa Iron Works, Ltd., at Dubuque, Iowa.

Piloted by Minnie Hill, only U. S. woman river pilot west of the Mississippi, the *Telephone* immediately began breaking all existing speed records and handling capacity business. On one of its first attempts at speed, the *Telephone* made the round trip between Portland and Astoria, Ore., a distance of 228 miles in 11 hours, 4 minutes.

Pilot Minnie Hill became one of the best known figures in the northwest, with stories of her handling of the swift *Telephone* assuming almost legendary proportions, outrivaling her husband, Captain Charles Hill, who commanded the *Telegraph*.

Despite her known and recognized abilities in a "man's job," Minnie Hill was a beautiful woman and retained all her feminine characteristics. She would be the first off the steamer to visit wives of the settlers to give them the latest in news and fashions. There were many instances when she would take an order from the women folk for dresses or hats to be purchased in Portland, and when asked what they had in mind, they usually replied, "What looks good on you, Minnie, suits me."

Making the purchase, it was a common sight to see Minnie at the landing on her return trip with the dress she had purchased tucked under her chin for the settler's wife to see, or wearing the hat she purchased. It was always a well-chosen article.

On July 2, 1887, the *Telephone* made the run from Portland to Astoria, a distance of 114 miles in the unparalleled time of 4 hours, 30 seconds, covering the last 40 miles in a seething gale. Captain U. B. Scott, chief owner of the line, remarked on the arrival of the steamer: "They will hammer away at that record for a long time." To date, the record has never been

(Continued on Page 6, Column 1)

SOLDIER ESCORT

(Editor's Note—The large number of troop trains handled in the first boom immediately after war was declared necessitated the use of many agents acting as escorts, who temporarily left their regular work to act in this capacity. We quote in part the experiences of one of them.)

By CARL NIPPER
Agent, San Jose

To me this has been a great experience, although I know my regular work has suffered. Traveling with the soldiers and talking with them, getting their slant on where they are going from here is most interesting and encouraging. I know that many of the men I talked to are the kind who recently replied at Pearl Harbor, "Yes, we want more Japs."

I sang songs with a famous cavalry troop on Christmas eve, detrained with them in a Nevada town that evening where the populace displayed that famous Nevada hospitality in a manner the boys will long remember. All Tom and Jerries were on the house that night because the bartenders just couldn't seem to take a soldier's money on Christmas eve.

On Christmas day I enjoyed a wonderful turkey dinner, served on paper plates in a baggage-kitchen car, on a folding light table—without the comforts we usually associate with a Christmas dinner—but with a captain and his lieutenants. Of four officers, three had families and the third was married within the last year. Home was discussed, but not with dry eyes by any man at that table. The men followed the usual Army practice of taking their turkey in chow line and returning with it to their seats.

Recently had a trip with a Captain — who had been a national guard officer for some time and served in the last fracas; and he told me of the following experience. He had been specially assigned to impress different units on the real purpose of mobilization, and had been drilling the idea into the men that there was a real purpose for this whole program and that purpose was war—and that war was sure to come.

It so happened, however, that on Sunday, December 7, he was driving alone in his car from a Kansas fort to a Texas camp, his mind far away from war. He stopped at a roadside place where the radio was going full blast around 3:30 P. M., reviewing the whole events of the day about Pearl Harbor.

He listened for a moment and asked: "What is this? Another Orson Welles spasm? It all sounds too fantastic." That from the man whose job it was to tell the Selectees that war was almost here.

CIVILIAN DEFENSE

(Continued from Page 3)

In modern warfare, with the exception of the last World War when the Germans used gas on the Canadians, there have only been two instances when gas was used, once by the Italians in Ethiopia and once by the Japanese against the Chinese. The countries of the world have an agreement whereby they will not use gas and the only reason that they do not use it, regardless of this agreement, is that every country is making it as fast as possible and it is the fear of retaliation which prevents its use. There are many gases available and many deadly. The most deadly are chlorine, phosgene and chloropicrin. One breath of any of these three, and if your name happened to be Jones, your wife would be addressed as Widow Jones when seen again. Very destructive gases, however, are mustard gas, lewisite and adamsite. These gases will not kill but in case of mustard and lewisite, if coming in contact with human flesh, will burn through to the muscle or the bone. Every individual in England has a gas mask.

Communications, of course, are very essential at all times, but particularly in war and the London police department maintains 14 switchboards throughout London, two of which are 60 feet under the ground. Sirens in England are used only for air raids, nothing else. All noise of every description is prohibited in England during an air raid. All sirens are manually operated by compressed air by a law enforcement officer and are placed every half mile in metropolitan London which covers 780 square miles. London before the war had 17,000 policemen. Today there are 37,000 policemen, with an auxiliary police force of a like number. London has 22,000 firemen with another auxiliary fire department of twice that number. All of these auxiliary police and firemen wear the same uniforms as regulars but receive no pay.

It is needless to say that everyone living within a couple of hundred miles of the Atlantic or Pacific Coast of continental United States is in grave danger and it would seem to me that it behooves each of us as individuals to not only protect our home and family with such known protective measures which we have at hand, but to participate in no small measure in any civilian defense activities of our immediate community.

TRANSPORTATION MEN

The horse and the mule live thirty years,
And nothing know of wine and beers;
The goat and sheep at twenty die,
And never taste of Scotch or rye;
The cow drinks water by the ton,
And at eighteen is mostly done;
The dog at fifteen cashes in
Without the aid of rum and gin;
The cat in milk and water soaks,
And then in twelve short years it croaks;
The modest, sober, bone-dry hen
Lays eggs for nogs, then dies at ten;
All animals are strictly dry—
They sinless live and swiftly die,
But sinful, ginful transportation men,
Survive for three score years and ten!



BUY United States Defense Bonds.

BUILDING THE W. P.

(Continued from Page 5)

equaled by any similar type of river boat. As a result of this great run, the steamer enjoyed immense business.

Tragedy struck the *Telephone* at Tongue Point on the outskirts of Astoria on November 20, 1887, when fire broke out. The flames spread so rapidly that, although the steamer was beached in 10 minutes, it was a mass of flames from stem to stern. All of 140 passengers and a crew of 32 on board landed safely with the exception of one intoxicated person who died of suffocation. The captain stayed at the wheel until the steamer reached shore and escaped death by crawling through the window of the pilot house. The steps had been burned away.

The Astoria fire department by prompt action succeeded in saving enough of the hull and machinery to warrant rebuilding the steamer. The new *Telephone* was launched April 28, 1882, and made her trial run May 20.

In 1894 she made 312 round trips between Portland and Astoria, covering a distance of 65,920 miles and making 12,731 landings. In 1903 the battered remains of the vessel was sold to Captain James Cochrane of the Arrow Navigation Company. A new and better hull was built, new boiler added and general overhauling and remodeling done, until the *Telephone* became again the envy of her rivals.

Financial difficulties prevented her from resuming her old field in Oregon waters for any length of time and on July 13, 1909, she was sold to the Western Pacific. In the waters of San Francisco Bay she became mistress of ferry boats, known as the fastest stern river steamer that ever turned a paddlewheel anywhere. She was retired December 31, 1917.

Upon dismantling the *Telephone*, the engine and boiler were sold to the city of Portland, Ore., for \$23,910, and were used in building the *City of Portland*.

The life of the *Telephone* is replete with history and dramatic events. Future historians will allot much space to the integral part played by this grand old river steamer in the early days of transportation and the building of the Western Pacific railroad.

(To be continued)

MEMBERSHIP DRIVE

With paid-up, half-year memberships expiring shortly among local members of the W. P. Club, Manuel Bettencourt, chairman, announces the creation of a new membership committee to check on expirations and to obtain new members. Committee follows:

Operating	FRANK FOWLER
Law	WILLIA WATSON
General Auditor	JOSEPH CORVEN
Engineering	CLIFF NORDEN
Freight Claim	ROBERT BEEBE
Transportation and Telegraphy—	
.....	PEARL MAYFIELD
Treasury	TIMOTHY MORAN
Hospital Special Agt., A. H. CROWDER	
Industrial	EDNA D. RICE
Dining Car	WILLIAM WIKANDER
Purchasing	J. C. BAIRD
Line-at-large	LEO J. GOSNEY

FEMININE FREIGHT

By PAT NICKERSON

We were all set to rave about a hat we saw which should have sent you all rushing to try it on: a darling white starched lace bonnet affair with navy bow and streamers. However, we lassoed a friend of ours who had that much cash and persuaded her to buy it for a very important occasion. And now we find it's the only one of its kind the store carried.

* * *

At the risk of seeming "folksy," we are printing a recipe for French dressing for which we have had many requests. Perhaps this will stop the stream of people to our desk wanting to know "how you make that tomato soup stuff."

You use ½ cup sugar (if you can get it), 2 tsp. salt, 1½ tsp. dry mustard, ½ tsp. paprika, 1 can condensed tomato soup, 1 tsp. Worcestershire sauce, 1 cup salad oil, ¾ cup wine vinegar, ¼ cup cider vinegar, 1 medium onion and 1 clove garlic, grated. Combine the ingredients and beat well until the sugar is all dissolved and the mixture is thick and rich.

* * *

For you vitamin pill fiends (and who isn't these days?) there's a really swank way of carrying them around in the form of a tiny lucite box with scalloped edges. About an inch square—fine for stamps, too. There are a compact and cigarette case to match, but those are necessities you'd have anyway, while this little box is real luxury.

* * *

Speaking of gadgets, we saw a really clever and useful ash tray—lucite again—one of the few terrific things turned out by modern artisans, to our notion. Quite large and shaped like a wheelbarrow; edges to lay your cigarette on, of course.

* * *

A friend of ours telephoned the other night and demanded indignantly, without any preliminaries, "Is there any job in your company that a woman couldn't be trained to do as well as a man is doing it now?" Our convictions being what they are, we immediately answered no. (Short of lifting the desks around.)

It seems that there was much complaining among the men in her office over the fact that women are being trained for some of the choice positions in that company. Mature consideration only confirms our opinion. Here's your chance, ladies and gentlemen, what do you think?

YEARLY EARNINGS SET RECORD HIGH

By W. C. MITTELBERG

The all-time high level of earnings for the Western Pacific Railroad Company in 1941, \$24,089,163, represent a 30% increase over 1940. Operating expenses, at \$16,757,505 were up almost 23%, while net railway operating income, after car hire expense of \$1,683,703 (28.5% higher than '40) stood at \$4,211,610, up 59%.

December '41 gross was by far the best December in our history. However, back pay and wage increases for the last four months of '41, charged out in December, cut some \$400,000 out of our net, resulting in a net railway operating loss of roughly \$18,000 for the month. Ordinary operating expenses too were considerably higher, principally due to the operation of our road on a wartime basis and in meeting the current vital requirements incident to the handling of government traffic. We must expect a continuance of such expenses, for nothing will be left undone to meet the Army requirements, regardless of their nature. We are at war and, as Col. Lasher recently said in San Francisco, "The carriers are our first line of defense, for this is a war of movements and they must be executed quickly and without question" . . . so, the Western Pacific, as well as the Sacramento Northern and Tidewater Southern, are ready and willing, along with the other railroads of the nation, to do, within the absolute limit of their ability, whatever may be demanded of them.

Our northern California extension, an untested factor upon its completion in 1931, is now an important artery . . . a major line of defense between the Pacific Northwest and northern California, contributed heavily to the record 1941 showing and, without doubt, will continue to be a very large revenue producer during the current year.

The strategic position of the Western Pacific property in the western territory will undoubtedly result in a very heavy traffic being offered us and it is probable that 1942 revenues will exceed those of 1941. Our ability to handle a capacity load will most likely be tested frequently, as it was in the fall of last year, when a difficult task was so ably accomplished.

Our primary job now is to service the requirements of our government and the added costs will be of small consequence, if, in so doing, we are able to play an important role in our ultimate victory.

All Western Pacific employees and officials are aware of the urgency of the situation, but the Traffic Department personnel is particularly cognizant of the part it must play in offering its full-time service to the accomplishment of the task.

Let's keep 'em rolling and make our record of achievement in '42 something about which we may be justly proud.

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AIR BRAKES

By PHIL WYCHE

Early means of stopping trains before adoption of air-operated brakes must have indeed been ineffectual and dangerous. Imagine trainmen clambering over box cars and across flats to "wind up" brake wheels with the aid of a pick handle! Over seventy years ago came the innovation of the air-operated brake, developed by George Westinghouse, whose name has become synonymous with railway braking.

At first, so-called "straight air" was employed. The principle embodied was largely that found on the present-day street car, wherein highly compressed air stored in a supply reservoir is fed through the motorman's valve directly into the brake cylinder. The resulting pressure on the cylinder piston forces it outward and clamps the brake shoes against the wheels.

Basically, the action is the reverse of an ordinary bicycle pump. If, instead of plunging the pump handle down to force air into the tire, air pressure were applied to the hose, it would force the handle upward. The upward movement of the handle corresponds to the thrust of the air brake piston which is transmitted to the shoes through a suitable linkage of levers.

The "straight air" system which brought gratifying results when two or three cars were involved, became sluggish as the number of cars was increased. Just as water takes an appreciable time to reach the other end of a long hose, so did the air (piped from car to car from the main locomotive supply) prove slow in reaching the last cars. This was increasingly so since it was partly depleted by each car through which it passed. Another and more serious disadvantage lay in the fact that a rupture in any part of the system rendered all car brakes inoperative.

After seven years these shortcomings brought about the development of the "automatic" air brake, which with some refinements is that in general railway use today. The outward results achieved were more simultaneous braking throughout the train and the essential safety feature of a positive brake application when any portion of the system became deflated by reason of the train parting, bursted air hose, or any other rupture of the air line.

The puzzling question of "how letting out air can apply the brakes" is quite simple in principle, but it took George Westinghouse to figure it out and to develop the practical mechanism.

First, he made each car self-contained by equipping it with its own compressed air supply in the form of an auxiliary reservoir filled from the engine. All then necessary was to devise some means of controlling the flow of air from the reservoir into the brake cylinder. Admittedly, it was impractical to have the trainmen go from car to car and work the valves even though the pick handles would no longer be necessary. A means whereby the engineer could exercise control was needed. Accordingly, he utilized a variation of the old "straight" air control, using it to operate valves on each car rather than as formerly.

These valves became in effect mechanical hands which turned the air supply

from the reservoir to the brake cylinder off or on in accordance with the pressure which the engineer fed into the train line.

The control valves, called triple valves because of the three-fold function they performed—setting the brakes, releasing them and recharging the auxiliary reservoir—formed the heart of the system. Moreover, the ingenious part of the arrangement was that the lowering of pressure in the train line caused the triple valve to set the brakes.

The basic operation of the triple valve depends upon an equalization of pressure principle. Its pressure chambers are connected between the train line and auxiliary reservoir. When the pressure in the train line is greater than that in the reservoir, the valve assumes a position which cuts off communication between the reservoir and brake cylinder, and in this position permits air to leak from the train line into the reservoir. This is the means by which the reservoir is charged. For example if, when the brakes are released, the train line pressure is 90 lbs. and that in the reservoir 70, air gradually passes through the triple valve into the reservoir until its pressure also becomes 90. Everything is then in balance.

When brake application is desired, the engineer turns his brake handle slightly, allowing some of the air in the train line to escape. A drop in pressure to, say 75 lbs., takes place throughout the entire train. This upsets the balance formerly existing in the triple valve, as the reservoir pressure is still at 90 lbs. The triple valve plunger immediately moves toward the side of less pressure. In so moving it uncovers a part, permitting air from the reservoir to flow into the brake cylinder.

This continues until the pressure in the reservoir has dropped to approximately 75 lbs. When this occurs, the triple valve moves to a neutral position, holding in the brake cylinder whatever quantity of air had entered it, with consequent continued pressure of the shoes against the wheels. If higher braking power is required, a further reduction in train line pressure is made with the engineer's valve and the cycle repeated.

When brakes are to be released, the engineer's valve is placed in a position which permits air from the main locomotive supply reservoir to flow back into the train line, restoring its former pressure of 90 lbs. The excess train line pressure returns the triple valve to its original position which causes exhaust of the pent up air in the brake cylinder to atmosphere, releasing the brakes, and also commences the recharging of the auxiliary reservoir.

For emergency stops, a drastic reduction of train line pressure causes the triple valve to open a special and restricted part, turning the entire auxiliary reservoir supply directly into the cylinder, creating enormous braking power.

Proper functioning of the system demands that the auxiliary reservoir maintain an adequate supply of air to effectually operate the brakes. As the reservoir can only be recharged while brakes are released, it follows that an extended series of applications with insufficient opportunity to recharge might deplete the air supply to the point of ineffectiveness. To meet this eventuality, each car is equipped with a retainer valve. When turned up, it

prevents full release of the car's brakes, maintaining about 15 lbs. in the brake cylinder, even though the brake in the cab may be at full release. When descending long grades where much continuous braking will be required it is the practice to go along the train and turn up retainers on 15 or 20 cars. On the steepest N. C. E. grades every car is turned up. Where possible, cars are alternated if wheels become too hot. As retainer cars furnish sufficient drag to avoid abnormal speeds, the engineer has an opportunity to recharge his train without having it get away from him.

Most of the improvement in brake valve design has tended toward increasing its quick-acting qualities. Both quick action and simultaneous response are very desirable features. The "AB" brake now adopted by the A. A. R. as standard represents the latest achievement in this direction for freight service. Many streamline type trains in seeking instantaneous results have individual brake cylinders on each set of wheels and while still pneumatic in operation are controlled electrically from the cab.

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And playing the most vital role in their history are the railroads. For it is the railroads that move all the materials, move all the fuel, move all the troops and equipment with speed and safety.

The "V" for Victory, the line that spreads around the world, the slogan that keeps the light of hope burning in impoverished lands has become synonymous with the war effort of America.

On the cover page words are not needed to explain the gigantic locomotive thundering through the "V." May we suggest it as the symbol of the American railroad.

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W. P. ARMY CIVILIANS

Company service stripes continue to mount up as employees join up with the armed forces. A new type Army job, however, calling for specialized experience, has taken away two of our men.

Dan Costello, genial chief clerk in the General Agent's Office, and a director of the W. P. Club, has been "drafted" into the Army as a civilian assistant at Fort Mason. His duties will consist of dispatching and disposition of traffic consigned to that base. He will also have charge of organizing a large department to handle this work under his jurisdiction.

Also at Fort Mason in an executive position is John McInerney, who left the local Freight Office on a leave of absence to become assistant traffic manager at the Fort. Starting off as "the Western Pacific man" at the Fort, John soon had all the officers, from general to shavetails, asking for his assistance and advice. It's "General" now, says Mac.

F. H. Hocken, former W. P. traffic officer, is now manager in charge of Commercial Traffic Agency for the Quartermaster General with headquarters in San Francisco.

ICE-CAPADES

About 30 W. P. Club members braved inclement weather to try their hand at ice skating. Miraculously, all managed to stay on their feet except Con Murphy who chose a particularly slushy spot to go into his swan dive. Parker Swain had some doubtful moments. Result: No casualties, no man days lost!

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