NATIONAL AFFAIRS

Reviewed by
CARTER FIELD

Demand for workers in defense industries may bring inflation . . . British air marshal fears improvements in war planes bars mass production.

(Bell Syndicate—WNU Service.)

WASHINGTON.—Tremendous demand for workers in the defense industries may be the straw on the proverbial camel's back that will produce such a strong advance in prices that inflation will be with us.

Despite all the possibilities for inflation which have existed now for so many years, and despite the frantic inability of investors to find anything that seemed a perfectly satisfactory "hedge" against inflation, prices have really not advanced.

Ever since the government commandeered gold, one of the stock questions for argument among economists has been: "Suppose you had $100,000 to invest and were worried about inflation, what would you do with it?"

This question is more pertinent now than ever, and no one knows the answer.

Some people with a little money, and some with a great deal, have bought farms. Some have bought unimproved real estate, and some low-cost buildings. But with local taxes on the upscale everywhere, it is questionable whether, over a period of time, these "hedges" will prove sound.

It would seem obvious that a bond selling close to, or above par, is NOT a good thing to have if inflation comes. The dollars will be worth less. Yet there has been no weakening of sound bond prices since the latest signs pointing to higher prices.

SAVINGS DEPOSITS RISE

It would also seem a certainty that money in savings banks would not be a good notion if one's dollars are to be worth less—yet there has been no falling off in savings banks deposits. Quite the contrary.

The demand for workers, and especially skilled workers, by the defense industries is practically certain to result in considerable wage advances.

Fatter pay envelopes may not have much logical connection with higher prices at the stores for everything one buys, but the two things go together; always have and probably always will.

In the period just ahead, moreover, there is another element calculated to bring about an advance of prices. This is the almost certain restriction, as the situation develops, of industries regarded as unnecessary to defense. This will naturally produce a shortage in the articles made by these industries, and this spells inevitable advance in the prices of those articles.

More direct, however, are the unavoidable effects on cost of production of nonmilitary articles. For if the defense industries are raiding others for workers, and the defense workers succeed in prying out wage increases, wage advances in the OTHER industries are inevitable. So that the basic cost of nondefense articles will actually, though indirectly, be forced up by the defense industries.

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Mass Production Of Airplanes Unlikely

The tremendous difficulty of applying automobile mass production methods to the building of airplanes for war purposes is such that in the opinion of Sir Hugh Dowding, British air marshal now on visit in this country, it is not likely to be surmounted.

Sir Hugh picked up a report from Detroit that the United States army had insisted on a change in piston rings and a pin just as the auto engine people had gotten squared away for production.

"That is a perfect illustration," he said. "You can put an engine on a block and run it for the required number of hours. It will function perfectly. Then you put that engine, or another precisely like it, in an airplane and send it up. Something may go wrong, which did not develop in the block tests. But if you find that the engine must be taken down, and new piston rings and pins put in after every flight, then obviously there must be a change in that engine.

"Obviously, there are always improvements and always changes. They will go on. The latest improvement may be the deciding factor in the battle in which that plane engages. But there are different varieties of change. One is essential. That is illustrated by the case of that engine with faulty piston rings and pins. Another might be illustrated by a change which would get 20 more horsepower out of an engine."

Sir Hugh was most interesting in his comments on why the much advertised Italian air force had been such a flop in the war. He laid it to two reasons. First, that the Italians as individuals had no stomach for the war.

The second was more military—Italian planes and aviators are definitely inferior to the British.

New Automatic Direction Finding Device Determines Position of Airplane in Flight

By WILLIAM KELLER
(Released by Western Newspaper Union.)

CHICAGO. — The danger of commercial aircraft becoming lost because of inclement weather or faulty navigation has been practically eliminated by a revolutionary new invention. Location of a plane in flight is automatically recorded at ground stations by an automatic direction finding radio receiver developed by radio technicians under J. P. Cunningham, United Air Lines' director of communications.

Four years of study and experimentation were conducted under Cunningham and Sandretto, head of the company's radio laboratory, before the direction finder reached its present stage of perfection.

An amazing degree of accuracy has been obtained by the device. Cunningham reports that tests conducted over a period of more than a year reveal that better than 99 per cent of the bearings made by the new receiver proved to be accurate.

Entirely automatic, the receiver operates without any special assistance from the plane in flight. It is described as remarkably simple in operation.

Each time that a plane in flight makes its routine half-hour position reports, the receiver acts on the radio waves. Large antenna that form the heart of the instrument pick up these waves. This antenna is constantly being rotated by a motor.

Electric waves picked up by the antenna are transferred to a standard radio receiver which amplifies it into energy. This energy operates a moving pen which draws a line on a scroll chart that constantly unrolls beneath it. The pen traces the form of the wave in a vertical zigzag line which reveals the maximum and minimum strength of the signal.

All bearings are based upon the minimum signal, or "null," as it is called by radio engineers. The null is recorded when the revolving antenna is exactly at right angles to the direction from which the signal is coming.

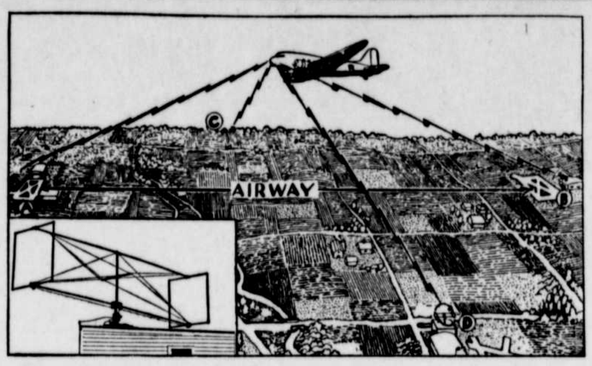
The null as shown on the chart form can be plotted exactly from a transparent plexiglas plate graduated in degrees which is placed over the chart. The radio operator can then read off the bearing of the airplane in degrees.

It is necessary for at least two stations equipped with the antenna and recorder to work together in triangulating a plane's position. This position is then immediately radioed to the pilot who uses the report to check upon his own navigation.

If three stations take bearings simultaneously from a plane in flight, lines from the stations are projected on a map. The exact position of the plane will be shown by the point on the map where the lines intersect.

"In practice," Cunningham explained, "we will use two or more ground stations simultaneously in receiving the reports from any given airplane. The bearings obtained by these stations will be electrically transmitted to our key dispatching posts on the transcontinental route. There the bearings can be plotted on charts in a few seconds and we thus know the localtion of every plane within a mile or two.

"For practical purposes, with a swiftly moving object like an airplane, this is 100 per cent accuracy."



Operation of the new airplane location recorder is illustrated by this sketch. Ground stations equipped with the device automatically receive bearings on a plane every time its radio transmitter is used. By taking simultaneous bearings, stations A or B, which are on the airway, can determine the plane's position with the help of C or D which are off the airway. At the lower left is shown the revolving antenna which makes the high degree of accuracy possible.

Cunningham added that the first station is now being installed at Salt Lake City. United Airlines expects to install about 20 to serve its entire system from coast to coast.

Finding directions by radio is not a new science. It was known in 1912 when radio was still in its infancy and was used at sea during the World war of 1914-1918. Pan-American Airways engineers subsequently developed a long range direction finding receiver. This receiver gave fairly satisfactory results over water where radio signals are more effective than land.

Unsatisfactory results were obtained about 1935 when the Pan-American system was tried out over land. Since then an antenna system that would operate over land has been sought by a number of radio manufacturers, the army and the navy.

Accurate results up to 80 per cent of the time were attained by a number of systems, but this was not considered sufficiently safe for use with passenger carrying planes.

Static interference was the fundamental cause of trouble with most of these direction finding receivers. It spoils signals and gives inaccurate nulls. Because United's device produces visual charts it is possible to weed out the bad bearings.

The army and navy are deeply interested in the receiver. It has been offered to other airlines in the United States.

Low-Income Families Use Housing Projects

WASHINGTON. — Nearly half of the families who live in the low-rent housing projects of the United States Housing authority have incomes of $2.50 a day or less.

For these families that $2.50 or less—the price of a decent hotel room to most Americans—must cover the daily cost of food, rent, clothes, and all the other things it takes to live. In some cases that daily income averages out to little more than a dollar.

A survey of the incomes of more than 12,000 tenant families released by USHA shows that 47.8 per cent earn less than $899 a year. In the case of 2.6 per cent of the families the annual income is actually under $400.

Only 7 per cent of the families—with many mouths to feed and in areas of unusually high living costs—have incomes of as much as $100 a month, according to USHA Administrator Nathan Straus.

'Gyp' Schools Rise To Offer Training For Defense Jobs

MINNEAPOLIS.—"Racket" trade schools are springing up all over the United States to take advantage of the anxiety of young men to secure quick training for defense jobs.

Like most rackets, the "gyp" job-training school is flourishing on a wave of popular enthusiasm for something legitimate, and is "muscling in" among the many legitimate schools for trade and vocational training.

The job of separating the good schools from the bad is complicated for the ambitious young job seeker by the fact that some new trade schools are entirely legitimate and have been established due to the fact that many older schools are already crowded to capacity and have long waiting lists.

High pressure salesmen for the "gyp" schools have already filched the savings and secured the contract signatures of thousands of ambitious young job seekers by "guaranteeing" jobs with the big airplane plants and other defense production industries, and by representing that their schools have "deals" with such companies to supply them with trained employees, according to a report by the Northwestern National Life Insurance company.

The situation has become so bad that major aircraft companies have been flooded with inquiries and complaints regarding "guaranteed placements" promised by such salesmen; several California companies have issued warning bulletins to the effect that they had authorized no such agreements, understandings, or guarantees. Chambers of Commerce in various defense industry centers are issuing warnings on the subject.

The report emphasizes that the two principal faults of the "racket" trade school are to oversell the opportunity in the first place and to undertrain in the second place.

The report suggests simple tests which any youth can apply to the school he is considering, before he pays any money down or signs an application blank. He should demand a list of recent graduates of the school. He should get in touch with several such graduates, either by personal contact or by letter, and ask them the following three simple questions:

1. Was the course satisfactory?
2. Did it help you to secure a job?
3. Has it helped you win advancement in your job, or if you have been employed only a short time, do you feel that it is likely to help you win advancement?

In the case of a newly established school the prospective student should enlist the help of some older friend, to investigate the financial responsibility of the sponsors, the completeness of the equipment, and the previous connections of the instructors. Public school authorities can usually give helpful information about a local private school, and the report emphasizes that a legitimate school will welcome investigation.

The report also warns that a certain proportion of young men, due to individual tastes, mental characteristics, and personality type, could not be fitted to hold a job in a mechanical or technical trade. Therefore, the legitimate trade schools invariably examine the qualifications of the applicant and refuse to accept those who they feel cannot be successfully trained. The "gyp" school exercises no such selection, but accepts any applicant who can raise the amount of the down payment.

Behind Scenes in Radio War

With most of the popular music ruled off the air waves by the ASCAP-BMI radio war, a staff of Broadcast Music, Inc., musicians work overtime on new arrangements of musical classics. They are busy putting Foster, Schubert and Bach to swingtime to replace tunes copyrighted by the American Society of Composers, Authors and Publishers.

11,000 Tax Bills to Face State Legislatures in 1941

CHICAGO.—Predicting that 60,000 bills will be introduced in the 43 state legislatures to meet in 1941, Mrs. Melville Mucklestone, president of the National Consumers Tax commission, warned the nation-wide membership that "no fewer than 11,000 will be tax bills."

She added that "if the lawmakers run true to form they will enact into law more than 1,800 of the tax bills, or an average of 43 per state."

Scientific Research Increases in Petroleum Industry

PITTSBURGH.—Research in the petroleum industry has expanded 539 per cent in the past 11 years, Dr. William A. Hamor, associate director of the Mellon Institute of Industrial Research, Pittsburgh, Pa., says in a survey reported in Industrial and Engineering Chemistry, journal of the American Chemical society. The industry now ranks second in scientific investigation, having risen from seventh place.

About 26,000,000,000 gallons of gasoline were produced last year. This output could be increased if needed to over 40,000,000,000 gallons in a short while, according to Dr. Hamor.

"Octane rating motor fuels of 100 and over are produced for aviation use, and these products may be utilized in pleasure cars within five years," Dr. Hamor predicted. "In aircraft work a fuel system is wanted which will compensate for the drop in pressure at high altitudes."

(Released by Western Newspaper Union.)

TWO DIRECTIONS FOR FARM INCOME

DESPITE THE EFFORTS at crop limitation for the purpose of increasing the national farm income by an increase in farm produce prices, and including all government payment of bonuses of all kinds, the total farm income in the United States was not as high in 1940 as it was in 1937, but was a trifle better than in 1938 and 1939.

In 1940 the total farm income was just under $9,000,000,000, about $1,383 for each of the approximately 6,500,000 farms in the nation.

The future of the farm income in this country lies in two directions. One is increased production of the farm products we can, and do to some extent, raise in this country, but which we now import to the extent of about $1,500,000,000 each year, and a protected market for such products. In that list there are some 60 items American farmers can raise if properly encouraged to do so.

The other opportunity is the development of a greater use of farm products in manufacture. Private enterprise has in the past, and will in the future, develop such uses if industrial laboratories are permitted to operate without too many obstacles. American farms can, as in the past, produce our food, and will in the future produce much of the raw material needed in manufacturing.

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ALASKANS VIEW RUSSIA, JAPAN, WITHOUT FEAR

BRONZED, weather-beaten John Friedland is an old Alaskan sourdough, typical of the he-men who have for many years braved the rigors of the far northland.

John Friedland knows Alaska from the far western tip of the Aleutian islands to the farthest north Point Barrow. For the first time in 35 years, old John recently made a trip to the States and I had an opportunity of a visit with him.

He told me that people of Alaska—the hardy prospectors, miners, trappers and pioneer farmers—have no fear of aggression on the part of Russia, and they have only contempt for Japan, looking upon it as a nation of poachers. He said the building of government air fields was welcomed, not as a defense measure, but as a means of improving air transportation in the territory. Without armed protection, Friedland said he thought these new air fields would prove quite as convenient a landing place for other planes, if any, as for the American planes.

But John Friedland had his full measure of Alaskan optimism and was fearful of nothing, unless it might be a reduction in the price of gold, which, if it came, would prove disastrous to Alaskan mining. He came to the States, traveled as far east as Chicago for a visit with old friends, stayed three days and then departed by plane for Candle Creek, Alaska, on the Arctic coast, so he might have his big dredges ready for operation with the first glimpse of the summer sun.

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WHO PAYS? NONE OTHER THAN WE, THE PEOPLE

CONGRESS WILL MAKE an effort to find more revenue for the federal government by enacting new tax laws. The tax on America today as levied by municipal, county, state and federal governments takes 30 cents out of each dollar earned by the American people. And we all pay our proportion, whether or not we receive a tax bill.

If you rent a house, you pay the landlord's taxes. They are included in your rent bill. If you buy a suit, about 25 per cent of the price is taxes. The same is true of any food you buy, or any other article of merchandise purchased. If you smoke cigarettes, you pay a federal tax of six cents on each package.

The government collects from the manufacturer and the merchant. They add the taxes to the price of what they sell, and pass it on to each one of us who buys their products.

In the end, it is not the rich who carry the burden of taxes. It is the average American—the men and women who work for wages, who maintain homes and who support families.

Corporations are supposedly heavily taxed, but if they could not, or did not, pass the taxes along as a part of the price of their product, they would soon be broke and millions would be without jobs.

We average Americans pay the cost of government through the things we buy, and the politicians cannot fool us by sending our tax bills to us.

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WILL THEY WAIT?

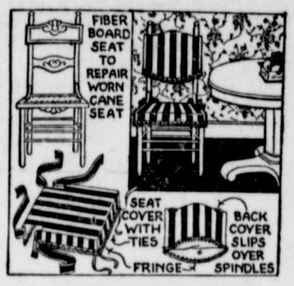
WE NOW HAVE a navy of 321 fighting ships of various kinds, all in commission. We have on the way or "on order" a total of 368 additional fighting ships which, if the defense program does not bog down, will be ready by 1947. That is supposed to constitute a navy capable of defending all American coasts at the same time—enough ships to defeat Hitler, Mussolini and Japan, should they all attack us at the same time, and if they wait another six years. Will they wait?

Becoming Frock Changes a Chair

By RUTH WYETH SPEARS

IF A CHAIR is all legs, angles and curves in the wrong places, a slip cover may do as much for it as a becoming frock will do for an awkward girl. The right color, a dash of style, fabric cut to bring out graceful lines and cover defects, and presto—a new personality for the ugly duckling!

That was the treatment given a set of old chairs like the one shown here. A two-piece frock was planned to repeat tones in the wall



paper of the room in which the chairs were to be used. The bold stripes of the putty tan, green and wine red material gave just the right contrast with the flowered pattern on the wall. Narrow green fringe was used for edging and the sketch shows how the two pieces of the slip cover were made.

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NOTE: You will find more illustrations for making over dining room chairs, old rockers and armchairs in Mrs. Spears' Books 5 and 6. Also directions for designing and making rugs; hooked, braided and crocheted. Each book has 32 pages of illustrated directions. Send order to:

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