

# Engineers NEWS

A DIGEST OF ENGINEERING DEVELOPMENTS

## Engineers Book "Gadgeteer" for April Meeting

Thursday, April 22, 1943 - 8:00 P. M.

Chamber of Commerce - - - Dinner at 6:30

Don Walker, in charge of the April meeting of the Fort Wayne Engineers Club, has announced that William C. Eddy, commanding officer of the Naval Training School for Radio Materiel and officer in charge of the Pre-Radio School connected with the Great Lakes Naval Training Station, has been secured.

Lieutenant Commander Eddy, after twelve years of submarine experience with the Navy, was retired because of deafness, but has not let his affliction slow him down one bit. Calling himself a "gadgeteer," instead of an inventor, he has found new fields to explore. Bill Eddy, as he probably prefers being called, is about forty, and spends his days at Annapolis, has taken his lean, gangling, boyish, six-foot-six frame over a lot of territory. On one trip, while stationed in Honolulu, he met a Grand Rapids nurse and later married her in Hankow. Their joint hobby started at Tai Ping Shan where they created a bath-tub. The home-owning bug bit deeply, and after re-

turning to New London, Connecticut, they built a house, up-stairs first, and glorified it with so many gadgets that when they moved, the house was rented out with a four-page booklet on how to run it. Their fourth house was built in the sand dunes at Long Beach, Indiana, on Lake Michigan.

One of the famous Eddy gadgets was a hearing aid he built in connection with a radio and with pilot lights in the lapel buttonhole. If the light shows red, it warns that Eddy is listening to the radio; if it is white it means all clear for regular hearing; if the light is out, Eddy has silence — for thinking.

Of all the gimmicks that Eddy has invented, at least thirty-five have been patented. These range from a widely used sound receiver for submarines to all sorts of television doodads. Three of his inventions were brought forth in the Navy, two while with Farnsworth television studios,

*(continued on page four)*

PUBLISHED BY THE  
Fort Wayne Engineers Club

APRIL, 1943  
VOLUME 5 NUMBER 8

# Engineers News

Official



Publication

H. A. KERBY, Editor ..... City Utilities, A-7441

## Associate Editors

E. M. Stanbery ..... G. E. Co.  
 D. G. Holloway ..... N. I. P. S. Co.  
 J. T. White ..... Traffic Engineer  
 H. A. Smith ..... G. E. Co.  
 P. T. Brantingham ..... International Harvester Co.  
 A. A. Ralston ..... G. E. Co.  
 G. L. Roark ..... G. E. Co.

VOLUME 5. APRIL 22, 1943 NUMBER 8.

## APRIL AND MAY ISSUES COMBINED

*Engineers News* for April was almost a casualty. "It is the War." The program committee had its scheduled speaker for April 15, only to learn at the last minute that the trip to Fort Wayne would be impossible. Then the Navy steamed to our rescue if we could postpone our meeting for one week. That's why we are one week late.

Then, because of the forthcoming election of FWEC officers at the May 20th meeting, and because of Article 7, Section 1 of our Constitution, which reads, "The Secretary shall communicate the nominations by mail to the members not less than two weeks preceding the annual meeting," the May issue of *E-N* was to have gone to press two weeks early. Two issue two weeks apart? Never! Hence, the combination.

Our Secretary, Ed MacMisegades, thought it would be a thrifty bit of business if he could cajole the editorial staff into using their columns for his propaganda, thereby saving himself a lot of work and about \$7.05 in postage, and letting the Publications Budget take the sag. A clever man, this Misegades! Being just as tight, if not as clever, we have discovered a way to lay back a pretty penny ourselves.

DON'T FORGET The MAY 20th MEETING!

— V —

## AIR ARM OF CIVILIAN DEFENSE

Probably the least known component of our Civilian Defense organization, the unit which has actually performed the greatest service to our country in this emergency, is the Civil Air Patrol.

A week before Pearl Harbor, CAP was created by the Office of Civilian Defense to utilize the tremendous force of civil aviation in our national defense. The personnel, equipment, and facilities of civil aviation at that time consisted of approximately 100,000 private pilots and a comparable number of student pilots with 25,000 privately-

owned planes operating from more than 2000 fields all over the country. Thousands of pilots previously flying as individuals were banded into units disciplined to prevent flights by unauthorized persons or violations of wartime regulations. Otherwise it would have been necessary to ground private flying.

More than 71,000 civilian volunteers have enrolled in this very worthwhile organization.

CAP National Headquarters in Washington, D. C., is staffed by officers of the Army Air Forces under the command of Major Earle L. Johnson.

Indiana Wing No. 52, with headquarters in Indianapolis, is composed of six groups. There are 48 Wings, one for each state. Fort Wayne (Group No. 523, under the command of Captain I. W. Baldwin, covers 12 counties in Northern Indiana, and has its headquarters at Smith Field. Group No. 523, is composed of three squadrons of which two are at Fort Wayne, and the third is from Auburn.

Each Wing, Group, and Squadron has its own commander and staff officers assigned to special duties such as operations, intelligence, communications, transportation, and medical. About a third of the members of CAP are pilots; a third are student pilots; and the rest have special skills as mechanics, radio operators, photographers, nurses, typists, and ground crew.

Do not be mistaken, CAP is not a flight training corps, but an organization of citizens with prior experience applicable to aviation. However, the training course which each member must complete covers the ground studies necessary for a private pilot's license. The basic CAP course of 81 hours stresses military and defense subjects such as Infantry drill, discipline, first aid, gas protection, military secrecy, and signaling. The advanced course of 150 hours includes navigation, meteorology, crash procedure, and a number of flying missions simulating the actual wartime assignments of the Patrol.

A brief review of the many services being rendered our country every day by the CAP should give us a better idea of its value in the Civilian Defense set-up.

Like the Civilian Defense warden, the members of CAP serve without pay and devote their spare time to its activities. However, thousands have been able to volunteer 30 days or more of continuous service to active-duty missions which CAP performs for the Army.

When the Axis submarines began to take a heavy toll of our coastal shipping, CAP organized a series of Coastal Patrols at points designated by the Army. These "Flying Minute Men" took their own planes, repair tools, radios, and other equipment to the danger zone and literally gave their all. These Patrols have already flown over 17,000,000 miles. Subs spotted have been sunk or those about to attack merchant vessels have crash dived at the approach of CAP planes. Many

pedo victims have been rescued through the efforts of the members of the Coastal Patrol.

Inland activities include reconnaissance and cue, guard duty, and the flying of medical supplies in times of disaster such as tornadoes and raids, mock air raids to further train Civilian Defense workers, aerial searches for scrap metal, and patrol of forests, electrical transmission lines, gas and oil pipe lines, as well as our trans-station systems.

However, the CAP work of most interest to REC members is the courier service available to Defense Industries. For a moderate rental on a night hour basis, CAP will carry cargoes or personnel, or patrol vital areas or utilities, or perform miscellaneous services authorized by recognized Industrial, Civilian Defense, Governmental, Military Officials.

In many cases, the production line has been kept going because of this rapid service provided by the CAP.

Fort Wayne firms have taken advantage of this service through flights to New Orleans, Chicago, St. Louis and many other cities.

The next time you are waiting for a train that is three or four hours late call CAP headquarters at Smith Field and get full particulars of our aerial pony express.

If you desire Civilian Defense work in the CAP you must be an American citizen, native born and naturalized at least 10 years from friendly countries. Fingerprints of all are checked by the FBI. A limited number without prior aviation experience may be admitted where there are vacancies in local squadrons.

D. G. Holloway.

**FLE AND PATTERN**

Sure the engineers have something on the mind. Accuracy of touch and direction, but back — never. And *never, never, never*, — tail, which must have been the situation in which a month's scribe found himself. Quatrain is all right, but *quintrain*, used where *limerick* should be is too much. There is no such word in our dictionary. No fair coining words. The nearest we can find is *quintain*, and that means "A sword or other object to be tilted at." And what tilting? Well, go on from there, and you will see how far afield lack of appreciation of the fundamental engineering principle of accuracy can get you.

That's the piffle — Here's the patter:

An engineer, without a line,  
Is like an angle without sine,  
It's inconceivable — can't be,  
If he can't bluff his way, Ah me!

He's in the middle all the while,  
Must bear indignities, and smile,  
His hecklers he would love to drown,  
But calmly, sweetly, *talks* them down.

**A MILITARY SECRET**

I am just a cub reporter for the Engineering News Assigned to get a story and perhaps some inside views Of Fort Wayne plants in action producing for the war While sparing OPA and not making other bureaus sore.

So I took my trusty pencil and a notebook in my hand To see a Factory Manager and expecting to demand That I be shown the factory and explained each new design The Company's now producing to make the Axis sign.

But I soon found that I was crazy to think that I'd be shown One little war design because they do not want it known That they are making airplane parts to keep ours flying high And machine gun parts to shoot the enemy from the sky.

So I went from plant to plant with the answer still the same, And before I'd made the rounds, I was getting pretty lame, But I did get one scoop which is printed here for you; It tells from start to finish how they make the incontrample screw.

The material is [redacted] and it first is [redacted] Then the screw is cut on a two-stage [redacted] After which it is [redacted] with a [redacted] in a [redacted] It is tested by [redacted] and finished with [redacted] Then packed and shipped to [redacted]

So there, my hungry readers, is the story in a hat; What is true of one is likewise of the gammatrorostat. The black magic of these gadgets also keeps the super-whiffer on the beam, And holds the Norden damn-sight to a bead on Hitler's dream.

FRIGID FREDDIE.

V

**NEW MEMBER**

Horace O. Mellem, Commercial Engineer of the General Electric Company, was accepted as a new member at the Council Meeting, April 5.

V

**A. I. E. E.**

On May 13 at 8:00 P. M., Mr. H. J. Holmquist, Consulting Engineer for General Electric X-Ray Corporation in Chicago, will speak to the local branch of A.I.E.E. in its regular meeting at Fairfield Manor. Mr. Holmquist's subject will be: "Modern Uses of Electricity and Electrical Equipment in the Science of Medicine." The meeting will be preceded by a dinner with the speaker a guest of honor. The dinner will begin at 6:30.

A.I.E.E. election returns will be given during and immediately after the meeting.

V

**A. S. M. E.**

At the regular monthly meeting of the ASME, held April 8 in the Old Fort Room of the Indiana Hotel, an interesting talk was given by Mr. John P. Morrissey. Mr. Morrissey, at present employed as a welding engineer at the General Electric Company, Taylor Street Plant, related his experiences during his two years in Russia. While he was Eastern District Sales Manager of the Chicago Steel and Wire Company as a railroad welding engineer and spent 1929 and 1930 in and around Voronezh.

—As told by R. Loveland to A. A. Ralston.

**ENGINEERS BOOK "GADGETEER"***(continued from page one)*

twenty-six while with NBC, and four since building and operating the Balaban & Katz station W9XBK in Chicago.

A "submarine ouija board" that Eddy invented for determining the zigzag course of surface ships amazed the Navy so that they snatched it up and adopted a new and unfathomable set of standard zigzags.

One of the Navy personnel cracked that there are three ways of doing a thing, the right way, the wrong way, and the Eddy way. And Eddy has been doing a lot of things the Eddy way. His simple, direct approach to seemingly impossible problems has taken the quadratic night-mares from almost every hard job that has confronted him.

Immediately after Pearl Harbor, Eddy went to Washington to get back into active duty. The task assigned him by the Bureau of Naval Personnel was to procure the thousands of rapidly trainable recruits necessary to man the most complicated electronic devices ever used. Eddy agreed to turn the Chicago Television Studio over for a radio materiel school (he got his bosses' permission after he returned to Chicago). This machine is in full gear and he has effected an almost fool-proof device for accepting or rejecting radio materiel recruits from all civilian branches. Few men now engaged in radio materiel work in the war have not been directly under the influence of the Eddy way of teaching — even to the use of a book of mathematics which he wrote for the specific purpose.

The Eddy way often calls for turning something upside down to improve it or to make it do something else. He used this approach while RCA chief sight effects engineer to solve a serious lighting problem.

Eddy is one of the most important contributors in the war effort, still is perhaps the most unassuming. He says: "In practically all of my stuff a lack of knowledge has been the important thing." *Saturday Evening Post*, Dec. 6, 1941, calls him a "Gadget Genius," while *Esquire* refers to him as "Simplicity's God-Child."

Eddy's ideas take him into various fields—optics, light waves, sound, mechanical and electrical engineering. He says, "I'm not limited to any one field because I don't know enough about any one field to specialize."

He gets urges to invent something and if the idea is slow to make itself come out he prods it with coffee and aspirin. Once his ideas become creations, Eddy is apt to remain aloof from them. He may even forget them. It is told that, for example, he devised a microphone drop system that automatically dubs in sound effects. Today, he must have an assistant operate it for him because, he says, "It's too damn complicated for me to operate."

Lieutenant Eddy will discuss the experience he has had and promises plenty of ad libs when he appears here Thursday night.

At 6:30 P.M., a dinner honoring Bill Eddy will be held at the Chamber of Commerce. Bob Loveland advises that the dinner will be \$1.25, slight increase, but come anyhow. Walter Walb's contacting crew will collect your reservations.

V

**IT CAN HAPPEN — AND DID**

The Council, at their April 5th meeting, did with regrets, vote to remove a number of names from our membership list because of arrearage in dues.

Organization of an engineering group in the community was effected to promote the general good of engineers. Many years and much work is necessary for us to obtain the results we desire. All three conditions have been partially met. More work and time is required, both of which we will give. We do not expect to create a "pressure group" of which there are too many now, but we intend to make ourselves and our needs known.

Mr. C. A. Walb, who has given much of his time and effort to the promotion of the organization in a legislative way, assures us that we are reaching some of our aims and that the group work is laid for more to come.

It seems that the most desirable thing we can do now is to maintain a large, strong, active membership so that when normal times are restored we can go on to our goal.

That's why we are sorry to see any of the members drop by the wayside.

V

**FORT WAYNE CHEMIST'S CLUB**

D. W. Bridges, chemist of the Corn Products Refining Company, spoke before the Fort Wayne Chemist's Club at their April 20 meeting at the Y. M. C. A. Mr. Bridges discussed "The Chemistry of Corn." A dinner at 6:30 preceded the lecture.

V

R. H. Chadwick, Assistant to the Manager General Electric Company, became ill last week immediately after boarding a train at Waterloo for the East. He was taken to the hospital at Bryan, Ohio, and has since returned to Fort Wayne, where he is on his way back to recover. Good luck, Chad. We will look for you at the May 20th meeting.

V

I have sworn upon the altar of God eternal hostility against every form of tyranny over the mind of man.—*Thomas Jefferson*.

V

There never was a rule that didn't have to be broken at some time, and the man who doesn't know when to break a rule is a fearful pain in the neck.

**NOMINATING COMMITTEE ANNOUNCES  
NEW SLATE**

1943-1944 nominees for FWEC offices have been announced by the Nominating Committee, composed of R. H. Chadwick, chairman; L. C. Heavner, and W. Kehoe. And a tough job it must have been — two of the members of the committee were hospitalized before the slate was drawn.

The following men are subject to the May 20th election:

- President: T. J. Kelly  
L. Z. Gossman
- Vice President: Walter A. Walb  
B. A. Case
- Secretary: William Cupp  
R. P. Loveland
- Treasurer: C. E. Carlson  
J. T. White
- Directors — two to be elected:  
Otto Gumpper  
C. Lichtenberg  
S. J. Winje  
W. R. Westphal

Other nominations may be submitted from the floor immediately preceding the casting of ballots.



**MAY 20TH FWEC MEETING**

Election of officers, a sound film in technicolor titled "Alaska," and a "mystery" speaker will feature the May 20th meeting of the FWEC, as was announced today by Henry Smith and Ray Cook, of the program committee. This meeting will begin at 8:00 P.M. and will end the activities of the Club for the 1942-43 season.

Election of officers should furnish a measure of excitement and the usual quota of campaign promises, belated "fence fixing" and oratory. The campaign promises to be the hottest in years and the pre-election pulling and hauling has been in progress for several weeks.

It is rumored that the Kelly-Walb combine is resorting to its usual tactics to insure the success of its candidates. Election of a majority of the "Confusion Party" men to office may produce some surprising results. On the other hand, what sort of administration may we expect if the "G.-E. Cremlins" grab control of the Club?

The film, "Alaska," which is to be furnished by Pan American Airways, not only contains much of scenery which is beautiful, but tells the romantic story of modern Alaska.

The committee has done much work to obtain the "mystery" speaker, but unfortunately cannot be sure that he will be available. He is an outstanding man in his unique field, and, if he is

able to be with us, his talk should contain much which is interesting and informative.

Immediately after the regular meeting, which will be held in the Chamber of Commerce Building, a dutch lunch will be served.



**PAST OFFICERS AND DIRECTORS  
OF FWEC**

670050

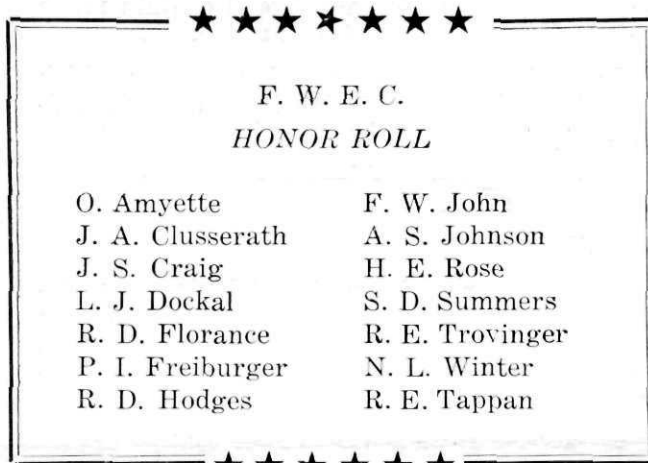
As a matter of interest and history, particularly for the seventy-two new members who have joined this year, here is a list of the men who have served in elective offices since the founding of the Fort Wayne Engineers Club:

	1936	1937
President	Witherow	Witherow
Vice-President	Carroll	Cornell
Secretary	Daily	Daily
Treasurer	Gumpper	Gumpper
Directors	Cornell	Frey
	Merritt	Merritt
	Kuttler	Bundy
	Kamm	Kamm
	Nordstrum	Nordstrum
	McKay	McKay

	1938	1939
President	Hanson	Grimm
Vice-President	Reinoeld	Chadwick
Secretary	Case	Summers
Treasurer	Heavner	Feustel
Directors	Bradley	Bradley
	Merritt	McAnlis
	Bundy	Kelly
	Noland	McKay
	Nordstrum	Noland
	McKay	Straub

	1940	1941
President	Chadwick	Kehoe
Vice-President	Straub	Gossman
Secretary	Gossman	McKean
Treasurer	H. A. Smith	Ulmer
Directors	Bradley	H. A. Smith
	McAnlis	McAnlis
	Kelly	Kelly
	Noland	Dickens
	C. Walb, Sr.	C. Walb, Sr.
	H. Miller	H. Miller

	1942	1943
President	H. Miller	? ?
Vice-President	Kelly	? ?
Secretary	Misegades	? ?
Treasurer	Ellison	? ?
Directors	Hoot	H. A. Smith
	Kline	Hoot
	Dickens	Kline
	H. A. Smith	Dickens
	C. Walb, Sr.	? ?
	Brantingham	? ?



F. W. E. C.  
HONOR ROLL

- |                  |                 |
|------------------|-----------------|
| O. Amyette       | F. W. John      |
| J. A. Clusserath | A. S. Johnson   |
| J. S. Craig      | H. E. Rose      |
| L. J. Dockal     | S. D. Summers   |
| R. D. Florance   | R. E. Trovinger |
| P. I. Freiburger | N. L. Winter    |
| R. D. Hodges     | R. E. Tappan    |

NEWS ITEMS

Wayne Kehoe has just returned to his home from the St. Joseph Hospital where he had some fine embroidery performed. Ask him about his "V" for viscera.

\* \* \*

The mysterious rumblings and the secret pulling and hauling which has gone on in the F. H. P. Motor Department of General Electric Company, has finally erupted into a reorganization. After the sparks had cooled and the confusion became something akin to order, a goodly number of good (and not so good) F.W.E.C. members had their names in the *Works News* and the local dailies.

Byron Case is appointed Administrative Assistant to P. O. Noble, Engineer of the F. H. P. Motor Department. Heading various engineering sections are: Cecil Allen, with Gordon Harvey as assistant; Larry Hemphill, with Herb Behm as assistant; Ray Jones, with Bill Pringle as assistant; and Hap Carter. C. B. Smith will succeed Byron Case in Production Methods.

V

THE RIGHT OF PROTECTION

There is much discussion today about changing our patent system. One group advocates compulsory licensing because it says, corporations are shelving patents. Another group advocates taxing patents and exacting working fees. Another group advocates destruction of the Patent Office because it is a mere tool of the corporations. Yet another group states that the entire system must be revised because inventors now work in laboratories of corporations instead of in attics and cowbarns.

In the early days when the inventor could, like Paul Revere and Ben Franklin, also become the manufacturer of the invention, this right to exclude, which is often called the right of "protection," was of direct benefit to the inventor. With the progress of civilization, however, the invention and the manufacturing phases of industrial life became separated because the inventor as a

rule lacked the capital or time to produce and market his invention.

This right of protection was one of the most important items involved when an inventor and a manufacturer were making arrangements to produce a new item for the good of the public and for their own incidental profit because protection was the thing which secured to the inventor a fair share in the profits and which permitted the manufacturer to expend money, time and effort in further development, financing, tooling, and selling the product without having a worry about a competitor.

It seems obvious that any change of law or procedure or any general attitude on the part of the courts which threatens to limit or destroy this fundamental right will, even today, destroy research, both private and corporate.

In the following table it can be seen that the work of the Patent Examiners, a body of experts having both technical and legal training, is rendered to a great extent useless by courts which are not particularly versed in technical matters.

Year	Number Patents Litigated	Results of Litigation - %		
		Invalid	Not Infringed	Valid & Infringed
1938	312	51.9%	26.0%	22.1%
1939	285	46.6	23.2	30.2
1940	330	53.4	23.0	23.6
1941	307	55.5	24.4	20.1
1942	233	59.6	21.9	18.5

It is obvious that these trends need not be projected very far before patents will be rendered entirely valueless.

This decadence of the right of protection cannot help but have an adverse effect upon research and this effect will be felt severely after the artificial stimulus of the war is removed.

It is submitted that unless the organizations in this country which are dedicated to the purpose of promoting the welfare of engineers and inventors do take an active part in promoting legislation which will save and improve our patent system and in defeating any force which is tending to destroy it, we may not long have that right which was a most important factor in building our present economy, in elevating the engineer inventor to his present plane and which is an extremely important factor in maintaining him there.

It is curious and absurd that the voice of the inventor, which should dominate the discussion of a system which was created for his benefit, is not heard amid that clamor of government officials, lawyers and industrialists who, at best, have only derivative interests in the subject matter of the debate.

E. W. E. Kamm.