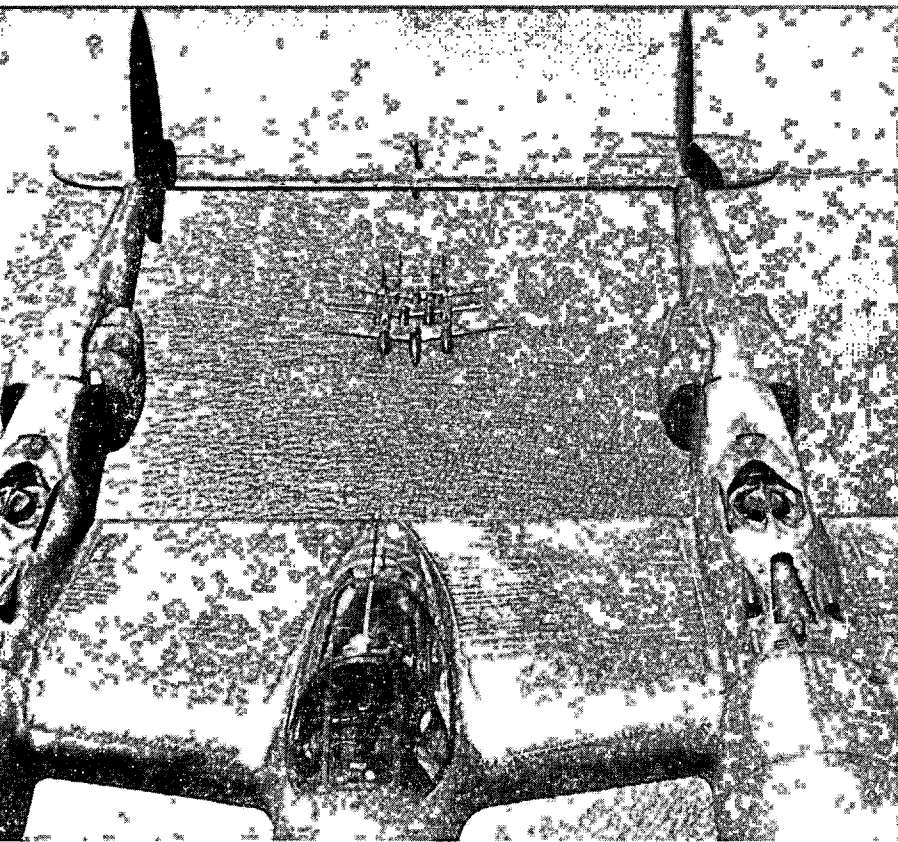
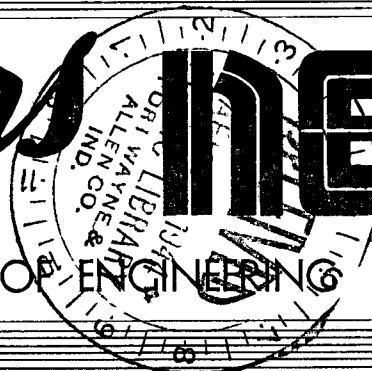


B & T Engineers NEWS

A DIGEST OF ENGINEERING DEVELOPMENTS Calif



G. E. Turbosuprechargers on the P-38 (Lightning)

MR. C. V. SORENSON

APRIL 20 MEETING

"Post-War Planning in the Utility Field"

DINNER 6:30 — MEETING 8:00.

"Battle Line of the Sky"

(The G. E. Turbosupercharger)

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Carlson Chirrup at 83%

Page 4

Nominating Committee Selects Slate for 1944-45 F.W.E.C. Officers

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J. W. DICKENS

TREASURER

J. B. MORIARTY

G. L. ROARK

VICE-PRESIDENT

WILLIAM CUPP

L. C. HEAVNER

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(Two to be elected)

SECRETARY

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S. WINJE

A. ULMER

A. K. HOFER

H. K. REINOEHL

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PRESIDENT'S MESSAGE

We are now entering the last two months of the current Engineer's Club year. An excellent April meeting program has been arranged by Tom Kelly which certainly merits your attendance. Details are given elsewhere in this issue.

You should also plan to hold the date of May 18 open for the annual business and election meeting of the Club. At this meeting you have the opportunity to choose the officers who will conduct Engineer's Club affairs for the next year. In the past the average attendance and hence the average vote has been about 25 or 30% of the membership. It seems to me that the importance of such a meeting should justify not less than 75% of the membership present. A slate of candidates has been chosen which appeals to me as very strong for all elective offices. This slate is published elsewhere in this issue. It may be trite to say so, but remember that only those who have cast a ballot at the annual election can rightfully criticize the elected officers, and we have no provision in our constitution for absentee ballots.

A decision has not yet been reached concerning a May Luncheon Meeting. If such a luncheon is held, the membership will be notified by the contact men of the Membership Committee in adequate time to make reservations.

Every problem rates major consideration and the promptest decision possible. So often we don't recognize either its importance or the cost of delay.

You can't keep all the skunks out, but don't let the few you have reduce your faith in human nature.

C. V. SORENSON TO TALK POST WAR

C. V. Sorenson, chairman of the residential section of the American Gas Association, will talk on "Post-War Planning in the Utility Field," at the April 20 meeting of FWEC to be held at the Chamber of Commerce. Dinner will be at 6:30 P.M. and the meeting will begin at 8:00 P.M.



MR. C. V. SORENSON

Mr. Sorenson has been identified with the utility business for more than thirty years and during that time has served as General Manager of the Public Service Company of Indiana, the Northern Indiana Public Service Company and the Citizens Gas Company of Indianapolis. His long service as a utility executive has given him a broad outlook and wide range of experience which makes his thinking on post-war

planning of particular interest.

Mr. Sorenson, as chairman of the residential section of the American Gas Association, is head of a committee on market and economic research. In a recent speech he said of the 1944 program proposed by his group! "One of the principle tasks during the coming year will be to act on suggestions made by the Post-War Planning Committee, as a result of its study of post-war potential markets and probable business conditions."

Mr. Sorenson's extensive experience in the utility field, his intimate connection with post-war planning organizations and his wide acquaintance in both industry and government should bring to his talk to FWEC a wealth of timely and constructive information.

DR. HEDWIG S. KUHN TO SPEAK

The Indiana Lighting Association will sponsor a meeting in the Chamber of Commerce Auditorium at 7:45 P.M., Thursday, May 11. The speaker will be Dr. Helwig S. Kuhn, of Hammond, Indiana, who will discuss industrial lighting problems from the viewpoint of an ophthalmologist. This is a new approach to the lighting problem and one which Dr. Kuhn is eminently qualified to discuss.

She is Secretary of the Joint Committee of Industrial Ophthalmology representing the American Medical Association and the American Academy of Ophthalmology and is also a member of the Industrial Advisory Committee of the Society for the Prevention of Blindness.

BATTLE LINE OF THE SKY

They marched down the broad aisle—hundreds of them—men and women—black and white—old and young—fighters on the battle line of the sky.

They came from all parts of the tremendous building covering almost twenty acres and filled with the hum and roar of some of the most modern machines in the world devoted to the building of the turbosupercharger, one of the principle reasons for the rapid succession of American Air Victories.

These men and women are fighting, not with bayonets and rifles but with skilled hands controlling delicate machinery capable of exactness which is almost incomprehensible to the layman. Stay-at-home warriors that they are, their skill—and certainly their hearts and hopes—ride with the Fortresses and the Lightnings on a dozen bloody battle fronts. The product of their long hours of labor—the turbosupercharger—allows thundering engines to breathe above the clouds on the crescendo of chattering machine guns and the roar of cannon.

The turbosupercharger was developed by Dr. S. A. Moss, of General Electric Company, and had its beginning about 1917. It has been improved constantly until now it is a veritable marvel of engineering and mechanical perfection. The problems which were necessary to solve in the building of the turbosupercharger were new and exacting. It called for new alloys, new factory processes and entirely new techniques to make this first "secret weapon" successful.

The turbosupercharger is simply a turbine driven by the hot gases from the aircraft engine which turns an impeller to compress the rarified air above the clouds and to force it into the airplane engine. The turbine operates at a dull red heat while the impeller may be called upon to pump air which is as cold at 100 degrees below zero. This wide difference of temperature in only a few inches of material has given rise to many of the problems in turbosupercharger engineering. Many of the mechanical parts of the turbosupercharger have on them almost no dimensional limits—infinite tolerances for manufacturing variations. They must be made to exact dimensions for with the high speed at which this apparatus operates, a small dimensional variation may be disastrous.

The buckets on the turbine, for example, weigh about one tenth of a pound each but at the operating speed of the turbosupercharger they may exert a centrifugal force of more than a ton upon the rotor which holds them. This rotor, at top speed, must withstand the stress of almost one hundred tons, and this calls for perfect materials and complete accuracy of workmanship.

The P-38 Fighter and the Flying Fortress are made to fly higher and farther than any comparable planes in the world and the output of standard engines has been increased several hundred

BY-LAWS MODIFIED

New F.W.E.C. members have complained, strenuously at times, about paying dues for a full year when they became members after the season has passed the half-way mark. There has been some agitation for amendment of the by-laws to allow prorata payment of dues.

In the April 5 council meeting the following amendment of Article 3, Section 1, of the By-Laws was proposed:

Fees and Dues

The annual dues will be three dollars for active and associate members and one dollar for non-resident members, payable in advance as of each year. The first year's dues for new members shall be as follows:

Members accepted before December 31—full year's dues.

Members accepted between December 1 and March 1—two-thirds full year's dues.

Members accepted between March 1 and June 1—one-third full year's dues.

It will be necessary, of course, that this amendment be voted on at the regular business meeting to be held in May.

V

FORT WAYNE CHEMISTS CLUB

The regular monthly meeting of the Fort Wayne Chemists Club will be held at the Indiana Technical College on April 18 at 8:00 P.M.

A film on protection from war gasses will precede the speaker, whose subject will be "The Chemistry of Plastics."

horsepower at high altitudes by the simple application of this device. It is this machine, in fact, which allows American planes to fight efficiently at altitudes of five to six miles above the earth—on the battle line of the sky.

Dr. Moss received, on December 17, 1941, together with the Army Air Force, the coveted Collier Trophy. The presentation was made by Vice-President Wallace, in recognition of a real contribution to the aviation industry. Dr. Moss, then, might be called the Commander of this army of men and women—this army which is building turbosuperchargers to help American fighters and their allies to win the battle of the sky. Dr. Moss gave of his genius in years of patient, unremitting work and research to develop, finally, the modern turbosupercharger; they are giving of their toil and skill to bring to life by the thousands that which was yesterday's dream. When the battle of the sky is won and our warriors, here and abroad, are returned to other pursuits, they—all of them—can glory in a good fight, a complete victory and a bright new day which they have largely helped to make possible.

STOLEN FUN and WISDOM

When two men in a business always agree,
one of them is unnecessary.

—William Wrigley, Jr.

— 0 —

Maryjane: "Swell party tonight."

Henry: "Yea. I'd ask for the next dance,
but all the cars are taken."

— 0 —

The stork is one of the mystics
That inhabits a number of districts.
It doesn't yield plumes
Or sing any tunes,
But helps out with the Vital Statistics.

— 0 —

GI: "I'm not feeling myself tonight."
Sue: "You're telling me."

— 0 —

This country would not be in the mess it is
in if the Indians had adopted stricter immi-
gration laws.

— 0 —

"Have a good time at the party, daughter
dear, and be a good girl."

"Make up your mind, mother."

— 0 —

Five per cent of the people think ten per
cent of the people think they think. And the
other eighty-five per cent would rather die
than think. — Thomas A. Edison.

STRENGTH THROUGH FREEDOM

"The United States can be strong only by acts
of popular free-will.

"That is why I say in conclusion just two
things to you of management and to you of labor.

"One. Go ahead and turn this country into a
continuous brawl, and government will chain you
both.

"Two. Make a better choice. Work together
and stay free.

"If you stay free, I have no doubt of the re-
sult—a strong America, an America Unlimited."

—ERIC A. JOHNSTON.

— V —

A. S. M.

The newly formed chapter of the American
Society for Metals held its first regular meeting
on March 28. Officers elected are: Chairman,
Pavesic; Vice-Chairman, Nisbet; Secretary, Mc-
Cracken; and Treasurer, Lehman.

Mr. Waldemar Naujocks, of Cleveland, repre-
sented the national organization in greeting the
new chapter and gave an illustrated talk on
"Forging."

Mr. W. H. Oldacre, of the Stuart Oil Com-
pany, will discuss "Machinability" at the April
25th meeting to be held at 6:30 P.M. at the Cham-
ber of Commerce.



CARLSON CHIRRUPS AT EIGHTY-THREE PER CENT

"Gloomy Gus" Carlson, the finest "dollar-
rassler" that ever came down the pike, has shed his
sack-cloth and ashes and is again enjoying normal
intercourse with his fellow men. Because of his
own genial personality and a mailing campaign
of masterful collection letters, he has literally
zoomed to the 83% zenith of dues collections.

The above photograph shows Mr. Carlson in
a surprisingly expansive mood, his pockets bulg-
ing with filthy lucre and only 38 of the tougher
F.W.E.C. members yet holding out on their dues.
Mr. Carlson says that his face won't open up into
a wide, toothy, "traveling salesman" smile until
every last F.W.E.C. member has kicked in with his
contribution — and Mr. Carlson is a man to be
reckoned with.

— V —

A. I. E. E.

Dr. J. O. Perrine, assistant vice-president
of the American Telephone and Telegraph Com-
pany, will speak to the April 13 meeting of the
A.I.E.E. which is to be held at Fairfield Manor at
8:00 P.M. Dinner will begin at 6:30.

Dr. Perrine will talk on "Frequency, Power,
and Noise in Multi-Channel Telephone Systems."