# SOCIETY OF WOMEN ENGINEERS

# JOURNAL

Volume 4 Number 3

SWE

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CONTENTS





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## PRESIDENT'S MESSAGE

Some figures on engineers recently released by the U. S. Department of Health, Education and Welfare are quite significant and should be of interest to all of us.

In the academic year ending June 30, 1953, 21,612 baccalaureate degrees were awarded to men and 30 to women by the engineering schools having ECPD accredited curricula. (Of the 1953 graduates it is estimated that 12,300 are in ROTC or are draft eligible.) The number of degrees awarded by these same schools this year (ending June 30, 1954) will drop to about 17,000. On the other hand, it is estimated that the Soviet Union will graduate 50,000 engineers.

Dr. Arthur S. Flemming, director of the Office of Defense Mobilization, in a recent speech urged that more women be encouraged to study engineering and further stated that the opportunities for women are not being called to their attention in a forcible way.

These facts present a great challenge to us and how well we accomplish our objective--to encourage women to study engineering--not only will determine the future of our Society but may affect the fate of the world.

Katharine Stinson

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The 1953-1954 Membership Directory of the SWE will be available for distribution at the Annual Convention. Members are entitled to one free copy. Additional copies, as well as copies for nonmembers, will cost $1.00. Advance orders for the latter are now being accepted by the Publications Director, 382 LeRoy Street, Ferndale 20, Mich. Directories will be mailed in March.

SWE ANNUAL CONVENTION

"The Woman Engineer in a Peace-time Economy"

March 5-7, 1954

Mayflower Hotel, Washington, D. C.

## Friday, March 5

8:00 a.m. to 5:00 p.m.

Registration desk will be open.

8:30 a.m. to 5:00 p.m.

Field trip to U. S. Naval Engineering Experiment Station at Annapolis.

8:30 a.m. to 12:00 a.m.

Field trip to David M. Taylor Model Basin.

2:00 p.m. to 5:00 p.m.

Field trip to U. S. National Bureau of Standards.

No other events are scheduled for the general membership.

7:30 p.m.

Meeting of National Board of Directors.

## Saturday, March 6

9:00 a.m. to 6:00 p.m.

Registration desk will be open.

10:00 a.m. to 12:00 a.m.

Transportation:

"Railroading with the Woman's Viewpoint"- Olive W. Dennis, Baltimore & Ohio Railroad

"The Story of an Aluminum Piston" - M. Virginia Sink, Chrysler Corporation.

## Saturday, March 6

10:00 a.m. to 12:00 a.m.

Communications:

"More Ways Than One" - Mary L. Murphy, Illinois Bell Telephone Company.

12:30 p.m. to 2:00 p.m. - Luncheon

"Cosmetics is a Woman's Business" - Hazel Bishop, Hazel Bishop Laboratories.

2:30 p.m. to 4:30 p.m.

Tools of Industry:

"The Compiler Technique for Digital Computer Applications" - Dr. Grace M. Hopper, Remington Rand

"The Electronic Computer--A New Tool for the Mind" - Dr. Ralph Slutz, National Bureau of Standards

"Good Technical Manuals; Their Place in our National Economy" - Henry E. Marschalk, Navy Bureau of Ordnance.

Appliance Engineering:

"Woman's Work is Never Done" - Helen E. Smith, Philco Corporation

6:30 p.m. to 7:30 p.m. - Reception given by the Washington Section

7:30 p.m. - Banquet

Presentation of Awards - Evelyn Jetter, Chairman, Awards Committee

"The Development of Engineers" - Dr. Allen V. Astin, National Bureau of Standards.

## Sunday, March 7

10:00 a.m. - Brunch

Open membership meeting.

2:00 p.m.

Informal sightseeing trips will be conducted by the local section members for those visitors who are able to remain.

## RATES

| | |
|---|---|
| **Registration** | |
| Members and Nonmembers | $ 2.00 |
| Students | $ 1.00 |
| **Meals (including gratuities)** | |
| Saturday luncheon | $ 4.00 |
| Saturday banquet | $ 6.00 |
| Sunday brunch | $ 3.30 |
| **Hotel** | |
| Single | $ 6.00 to $16.50 |
| Double | $12.50 to $18.50 |
| Twin | $13.00 to $19.50 |

Reservations and information requests should be addressed to Ethel Levene, 504 Winthrop House, Washington 6, D. C.

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SWE PINS . . . This distinctive emblem of the SWE is available in a gold filled pin with safety catch at $1.80 plus postage. Members of SWE Sections may order their pins by contacting their Section Chairmen. Members-at-Large may order directly from the Emblem Committee Chairman.

## FIELD TRIPS

### U. S. Naval Engineering Experiment Station at Annapolis

This trip will take the entire day. Transportation leaves the Mayflower at 8:30 a.m. Friday, March 5. Cost of the tour will be $4.15 ($2.50 for transportation, $1.65 for lunch). The tour is open to U. S. citizens only.

The Engineering Experiment Station is the Navy's oldest laboratory dedicated to the solution of the problems connected with the machinery for driving and operating naval vessels. It is divided into seven test laboratories and two projects.

In addition to the tour of the Station, a visit will be made to the Naval Academy in time to see the meal formation of the Midshipmen. Lunch at the Officer's Club will be followed by a tour of the points of interest at the academy with an officer escort.

### David M. Taylor Model Basin

This trip will take half a day. Transportation leaves the Mayflower at 8:30 a.m. Friday, March 5. This tour is open to U. S. citizens only.

The Model Basin, the largest existing research laboratory of its kind, was established to provide a facility for the Navy and for other Government and private shipbuilders to test their ship designs by the use of scale models. Wind-tunnel facilities are also provided for similar testing of airplane and missile designs. The facilities consist of deep-water and high-speed towing basins; a shallow-water and turning basin; a circulating-water channel; two variable-pressure water tunnels; a large structural laboratory; subsonic, transonic, and supersonic wind tunnels; and a number of smaller but highly important facilities. In addition, there are well equipped machine, woodworking, and wax-molding shops in which the models are made and prepared for testing. The research, development, and testing operations are carried out in four laboratories,

descriptively labelled Hydromechanics, Structural Mechanics, Aerodynamics, and Applied Mathematics.

U. S. National Bureau of Standards

This trip will take three hours. Transportation from the Mayflower will be by public conveyance. The tour begins at the NBS at 2:00 p.m. Friday, March 5.

The NBS plant consists of some seventy buildings, about twenty of which are major ones, set within a sixty-eight-acre park in northwest Washington. Visits will be made to the following laboratories: Engineering Mechanics, Fire Protection, Electronic Computer, Betatron, High Voltage and X-Rays, Low Temperature, Electrical Standards, and Hydraulics. The group will also see a demonstration of the magnetic fluid clutch and a motion picture on Project Tinkertoy.

## ABSTRACTS OF CONVENTION PAPERS

### "Railroading with the Woman's Viewpoint"

by Olive W. Dennis

Many kinds of engineering know-how are needed on a railroad. Mechanical engineering is involved in studies of motive power, in the design of running gear beneath car floors, in the development of heating and ventilating systems. Electrical training is needed in signalling and communications departments, chemical engineering in the testing laboratories, and draftsmen are needed in many areas.

Railroad engineering positions like these are generally held by men. Women who want to edge in have to show that they have something special to contribute because of their feminine viewpoint which enables them to tackle railroad problems from an angle men do not have.

"The Story of an Aluminum Piston"

by M. Virginia Sink

This talk will, in fact, deal with the life history of an aluminum piston. The story covers the development of aluminum as a suitable material for automotive pistons. An aluminum piston is discussed in this instance as an example of applied automotive engineering. Between the initial idea of an aluminum piston as an automotive part and the aluminum piston as an accepted and usable product lie numerous intermediate steps of formulating the material specification, of setting up and conducting both chemical and physical tests on the experimental automotive part, and of the dynamometer and final road tests with the aluminum piston as a part of the complete automotive system.

"The Compiler Technique

for Digital Computer Applications"

by Dr. Grace M. Hopper

The immediate use of large-scale digital computers in business applications will largely depend upon (1) the efficiency and speed of problem preparation for the variety of heterogeneous data-processing procedures employed in business and industry, (2) the rapid response of the computer to exceptional demands and procedural changes, and (3) the flexibility and economy of preparing for additional work on mathematical and engineering problems. It has been proved that the computer itself can effectively be used to reduce preparation time through the application of automatic techniques. The development of the compiler technique will be defined and reviewed together with an evaluation of the method and predictions concerning its future development.

"The Electronic Computer--A New Tool for the Mind"

by Dr. Ralph J. Slutz

The development of the electronic computer has introduced a revolution in the handling of numerical data. This directly affects engineering in two ways. On the one hand, these computers constitute a powerful new tool for the analytical solution of engineering problems. On the other hand, we can look toward their becoming in the future a key part in even more complex assemblies of equipment, such as automatic factories.

The development of these machines will be outlined, from Charles Babbage's "Analytical Engine" to the modern "Defense Calculator." A simple description of how they work will be given, pointing out that for all their apparent complexity they are a logical outgrowth of the common desk calculator, and some problems that have been handled will be discussed.

"Good Technical Manuals; Their Place in Our National Economy" by Henry E. Marschalk

Early in his talk, Mr. Marschalk defines the technical manual, particularly from the viewpoint of his branch of the military establishment. He briefly reviews the historical background of military technical manuals, traces the course of these publications from earlier times to their lavish development during World War II, and their subsequent stringent control since that time.

He expounds the philosophy that technical manuals, particularly military technical manuals, must play an increasingly important part in our national scene. He stresses the point that ever greater complexity in the weapons of war and the machinery of industry, demands that instruction books shall be better planned and better prepared to do their job effectively. He feels that good engineering needs to be applied to the technical manual as much as to the design and production of "hardware." He develops this theme with some interesting examples.

"Woman's Work is Never Done"

by Helen E. Smith

Among the topics discussed are:

1. Cordinating the contributions of women in the home, home economists, and engineers in designing appliances for the home: refrigerators, ranges, and freezers.

2. The evolution of the modern kitchen through research and engineering.

3. A peek at the future: appliances hinted at or announced by manufacturers for future development.

4. The opportunities for engineers in the design of improved appliances and new appliances and the suitability of women as engineers in the appliance field.

"The Development of Engineers"

by Dr. Allen V. Astin

During a period when the nation's needs for trained engineers greatly exceed the supply, it is important to give attention not only to the education of more engineers but to using more effectively the engineers we have. There are many things that working engineers as well as management can do to bring about better utilization of our human engineering resources. Some of these will be discussed.

## CONVENTION SPEAKERS

OLIVE W. DENNIS, educated in the Baltimore Public Schools, was graduated from Goucher College, Baltimore, with the degree of A.B., having majored in mathematics and science. She received the M.A. degree from Columbia, majoring in mathematics and astronomy. Teaching high school mathematics led her to take a course in Elementary Surveying, in order to teach trigonometry more intelligently. With this as the stepping stone she went on to other engineering studies and finally to the completion of requirements for the C.E. degree from Cornell in 1920.

Upon her graduation from Cornell she became a draftsman in the Bridge Engineering Dept. of the Baltimore & Ohio Railroad. She held this position for 14 months, then became Engineer of Service on the Staff of the President. Her duties were to observe the railroad's passenger service and suggest ways of improving it, particularly from the viewpoint of women passengers. Her suggestions led to improvements in the comfort of coach seats, in car ventilation and cleaning.

The woman's viewpoint led to brighter color schemes in car interiors, more informal arrangements of furniture in lounge cars, and lighter dishes in dining car menus. Miss Dennis holds the patent for the design of the B & O's pictorial blue china. She designed a mirror alcove for women's dressing rooms, whereby five mirrors set at angles enable the person seated at the dressing table to see the head from all sides without the necessity for holding a handglass. She has also designed a folding bassinet in which an infant can lie beside the mother, without using a second double seat.

Miss Dennis was the first woman to become a member of the American Railway Engineering Assoc., serving on the committee on the Economics of Railway Location and Operation. She was recently made an Honorary Member Emeritus of this committee. During World War II she served as an engineering consultant of the Division of Railroad Transportation of ODT. In 1946 Miss Dennis was made Research Engineer for the B & O, a post which she held

until her retirement in 1951. She still serves the B & O as a representative and consultant when needed.

M. VIRGINIA SINK received her B.S. in Chemical Engineering from the University of Colorado. As an honor student she was among those outstanding engineering graduates selected by the Chrysler Corporation to attend the Chrysler Institute of Engineering. In 1938 Miss Sink received her M.S. from the institute; she is the only woman to hold this degree.

During her years with Chrysler she has been supervisor with full responsibility for the operation of the Spectographic, Radiographic, and Chemical Laboratories in the Materials Testing Dept. Her present position is that of Project Engineer in the Research Division.

In 1950, Miss Sink was chosen as one of Detroit's "Women of Achievement." She is a member of the honoraries Tau Beta Pi, Sigma Pi Sigma, and Iota Sigma Pi. In addition to the SWE, Miss Sink is an active member of the American Chemical Society, Engineering Society of Detroit, Society of Automotive Engineers, and the Soroptimist Club of Detroit. Her hobbies are bowling and leather carving.

MARY L. MURPHY is an engineer with the Illinois Bell Telephone Company in Chicago. At the present time she is engaged in the transmission design of Chicago local and toll connecting trunks. Most of her experience has been in this field except for several years during World War II when she served as a project engineer in radar design section of the Bureau of Ships in Washington, D. C.

Miss Murphy received a B.S. degree in mathematics from the College of Saint Teresa, Winona, Minn. and did some graduate work at Loyola University in Chicago. She is a registered engineer in the State of Illinois and holds a commission as a Lieutenant Commander in the Naval Reserve.

A member of the Western Society of Engineers, Miss Murphy is also Chairman of the Chicago Section of the SWE.

HAZEL BISHOP is a native of Hoboken, N. J. and boasts of it. She is a graduate of Barnard College where she was a pre-medical student. However, the financial crash detoured her into continuing her graduate studies in chemistry in the evening while working during the day in the biochemical laboratories at the Columbia Medical Center. Later, as an assistant to a world-famous dermatologist, she tracked down the causes of cosmetic allergies.

During the war, Miss Bishop worked in the research laboratories of the Standard Oil Company of New Jersey, as an organic chemist devoting most of her efforts to problems concerning aviation fuels. Several years later, at Socony Vacuum, Miss Bishop's work dealt mostly with industrial products whose major ingredients were petroleum derivatives. It was during this period that, as a hobby, she began formulating lipsticks. She turned her own kitchen into a laboratory. The brilliant success of the lipstick which she created and brought to market through the corporation which she founded is well known.

Miss Bishop is a member of the National Council of the American Chemical Society; she is also chairman of the Social Committee of the New York Section of the ACS. A member of the Society of Cosmetic Chemists, she delivered a scientific article on her own research before this society at the December 1953 convention.

Miss Bishop is an active sportswoman; she is an ardent tennis player and has been a member of the West Side Tennis Club at Forest Hills for many years. She is one of the relatively few women trapshooters. Miss Bishop spends much of her time in her laboratory developing new products.

DR. GRACE MURRAY HOPPER received her B.A. from Vassar (Phi Beta Kappa) and her M.A. and Ph.D. from Yale. For a number of years she taught mathematics at Vassar. Then, in 1944, she was commissioned Lieutenant, J.G., in the Naval Reserve. As Mathematical Officer with the Bureau of Ordnance Computation Project, Dr. Hopper began work in a field which has absorbed her completely.

In 1944, the Mark I, which completes three operations a second, was miraculous. From this to the UNIVAC, which completes one thousand operations per second and is a mass production job, is a tremendous advance. Dr. Hopper says, "To share in this development, to watch computers appear in all fields from mines, torpedoes, and missiles to insurance and public-utility billing, has been to watch a whole new industry grow."

Now a Systems Engineer with Remington Rand, Dr. Hopper is well known in the computer field. She has authored numerous papers and manuals on various phases of computer operation. Dr. Hopper is a member of Sigma Xi, Society for Industrial and Applied Mathematics, Association for Computing Machinery, Institute of Mathematical Statistics, and many others, including the SWE.

DR. RALPH J. SLUTZ studied electrical engineering at MIT, and did graduate work at Princeton in theoretical physics. He has been in electronic computer work since 1946, first at the Institute for Advanced Study, and now at the National Bureau of Standards. He was active in the design of the NBS computer, and now is a Consultant in the Electronics Division, dividing his time between computer design and the preparation of mathematical problems for computer solution.

HENRY E. MARSCHALK was an early experimenter in radio receiver and transmitter designs. While a student at Newark Preparatory School, he built the school's radio station which was heard in various parts of the world. Later he built the first commercial broadcasting station in Lakeland, Florida, WMBL.

In subsequent years he served in various capacities in the radio manufacturing and retailing business, during which time his talents for technical writing and illustrating were being developed.

In 1942 he was employed by the U. S. Naval Gun Factory at Washington as an Electrical Engineer, but his editorial interests led him quickly into the technical publications group there. Since then, he has risen through the technical editing ranks to top post in the technical publications field of the Navy's Bureau of Ordnance.

HELEN E. SMITH is presently employed as a Senior Engineer with the Philco Corporation, Philadelphia, in the Engineering Department for Preliminary Designs of Domestic Refrigeration and Freezers. She has been with Philco since 1942 and was the first woman draftsman in the engineering department. Before coming to Philco, Mrs. Smith had gained an extensive mechanical background through having run an appliance sales and service business with her husband for ten years. For the last seven years, she has been a senior engineer, designing and developing preliminary samples of appliances from crude sketches or verbal descriptions, contributing original ideas which have led in many cases to the improvement of the final design. Mrs. Smith holds two patents on refrigerators.

In 1951, Mrs. Smith received one of the top achievement awards given to engineering personnel at Philco. This was the first year such awards were given. She received a second such award in 1953.

She is a member of the American Society of Refrigeration Engineers. In 1953, she became a member of the SWE and is presently on the Membership Committee of the Philadelphia Section.

DR. ALLEN V. ASTIN received his B.S. degree from the University of Utah and his M.S. and Ph.D. degrees, in physics, from New York University.

In 1932, after several years experience in the field of electrical insulating materials, Dr. Astin joined the staff of the National Bureau of Standards. His work for the next eight years included investigations of ignition, electronic, and electrical problems. During this period his research contributions included the discovery and development of improved methods of measuring dielectric constants and power factors of dielectric materials and a better understanding of the nature of energy losses in air capacitors. His pioneering work in the application of radio telemetering techniques to studies of meterological problems in the earth's atmosphere led to the use of these techniques throughout the nation in studies involving the upper atmosphere.

In 1940, Dr. Astin was requested to join the Bureau's group beginning work on the proximity fuze. He played a major part in the development and evaluation of proximity fuzes and in their introduction to service during the war.

In May, 1950, Dr. Astin was appointed Associate Director, in charge of the programs and activities of the Bureau's Ordnance Development, Missile, Electricity, and Electronics Divisions as well as the Office of Basic Instrumentation. He was also responsible in this position for the coordination of the Bureau's operations with other Government agencies, for whom much of the Bureau's work is done.

Dr. Astin served as Acting Director of the Bureau from October, 1951, to June, 1952. He was appointed Director of the National Bureau of Standards by the President and confirmed by the Senate in June of 1952.

Honors and awards include the following: National Research Council Fellow, 1928-1930; Navy Ordnance Award for Exceptional Service, 1945; Army Ordnance Award for Outstanding Service, 1946; Presidential Certificate of Merit, 1948; Gold Medal Exceptional Service Award, Department of Commerce, 1952. Dr. Astin is a Fellow of the American Physical Society and a member of the Institute of Radio Engineers, Sigma Xi, American Association for the Advancement of Science, American Ordnance Association, Washington Philosophical Society, and the Washington Academy of Science. He is also a member of the Cosmos Club.

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"The Quest of the One Best Way," a biography of Frank Gilbreth by Dr. Lillian Moller Gilbreth, published by the SOCIETY OF WOMEN ENGINEERS. Leatherbound, $2.00; paperbound, $1.25. Make checks or money orders payable to SOCIETY OF WOMEN ENGINEERS and mail to the Society at 2854 Fairfield Avenue, Bridgeport 5, Connecticut.

Washington:

Ruth C. Haueter, SWE member employed as an electronic scientist by the National Bureau of Standards, coauthored an article titled "SEAC" which appeared in the Proceedings of the Institute of Radio Engineers for October, 1953. SEAC is the name of the giant computer which has been constructed at the Washington headquarters of the NBS.

Lt. R. Carolyn White, Section Chairman, got up before the sun one morning in December to appear on a street telecast by station WTOP-TV. Ted Lingo, local newscaster, interviewed Lt. White on the subject of SWE for the benefit of residents in the Washington area. The interviewer was interested in the fact that women were actually engaged in so many fields of engineering endeavor. However, Carolyn says she doesn't think he believed it!

The January membership meeting of the Section was devoted entirely to the business of the National Convention. This meeting coordinated the work of the individual committees and the group is now approaching the home stretch as a team--with work for everyone.

Carolyn White and Katharine Stinson attended the January 8 meeting of the D. C. Council of Engineers. This organization is made up of two delegates from each engineering Society in the D.C. area. The Council, in conjunction with the National Academy of Sciences, has carried on an active educational program in metropolitan D. C. Special emphasis is placed on interesting boys and girls at an early age in subjects leading to an engineering career. Katharine Stinson and Frances Darne have charge of contacts with all private and parochial schools in the area. Carolyn White is working with the PTA group headed by Dr. Mebs of the NBS.

Pittsburgh:

The January meeting of the Section consisted of a visit to the Buhl Planetarium. Members and their husbands enjoyed the Sky Show and the scientific exhibits. Plans are being made to display SWE posters at the Annual Science Fair for high school students, which is being sponsored by the Planetarium in April.

At the seventh annual conference of the Pittsburgh Personnel Association, also in January, Phyllis Evans Miller spoke on "Women in Engineering." In February, the Section held a joint dinner meeting with the Personnel Association at the Hotel Schenley.

Other speeches by Section members included an address by Phyllis Miller before the Business and Professional Women's Association of Pittsburgh. Emma Barth spoke to a group of students at Taylor Allerdice High School on teaching versus engineering as a profession. Such talks are clearing up many misconceptions--sample question, "Didn't you find it hard to go from teaching to a job where you had nothing to do with people?

Los Angeles:

Mr. William C. Brown, Assistant Chief Engineer of the Osbrink Manufacturing Company, spoke to the group at the December meeting. His company is the originator of the Osbrink Casting Process for nonferrous castings. An introductory film showed some of the castings which the company has made for various aircraft firms, illustrating how parts can be made as castings when machining them would be very costly or impossible. Mr. Brown showed some actual castings. He explained how they were made and how castings are made in general. He explained that, through the Osbrink process, castings using sand molds could be produced to almost unbelievable dimensional accuracy and surface finish, heretofore considered beyond the scope of any casting system. A very spirited question and answer period followed the speaker's talk, and a trip through the foundry was proposed. Plans are now being made for a plant tour.

At a dinner meeting in January the subject "Effective Utilization of Women in Engineering" was discussed by Mr. Edward Hearsey, Assistant Director of the Institute of Industrial Relations at UCLA.

All recognized junior colleges, colleges, and universities in the Los Angeles area have been contacted and aid offered for encouragement of women into engineering fields. Ruth Dynes is holding open

house at her home on the 3rd Sunday of every month for high school and college girls who are interested in the engineering field or are studying engineering. Officers of the Society are present to give the girls the opportunity to ask questions and find out more about the future for women in engineering.

Chicago:

The Chicago Section is now holding meetings in one of the conference rooms of the Illinois Bell Telephone Company, 208 W. Washington St., Chicago. Meetings are held the fourth Friday of alternate months. Any visitors in town are cordially invited.

This section has been having various women engineers discuss their work at meetings. At the meeting of November 27, 1953, Joan Barriage of Armour Research Foundation spoke on "Photo-electric Models." At the meeting of January 22, 1954, Alice Klein of Greeley and Hansen spoke on "Sanitary Engineering." Members find these programs very interesting as it gives everyone an insight into the various problems that arise in many fields of engineering.

Detroit:

On January 20, 1954, a dinner meeting was held at the Engineering Society of Detroit. Lucille Pieti, SWE member who is traveling with the Chrysler Corporation's million dollar show, "New Worlds in Motion," presented a sound-color movie about the show. She discussed the history of the show, which has been on the road three years and has been seen in 35 cities by more than eleven million people. Miss Pieti gave some interesting sidelights on the questions she has been asked in her travels with the show, many of which were specifically designed to find out if she really was an engineer. (She holds a B. S. in Mechanical Engineering from Wayne University, Detroit.) On page 20 is reprinted a poem which Miss Pieti read to the group. Needless to say, it is one of her prized possessions.

Houston:

The Houston Section's activities during the past three months consisted of a tour through the Bellaire Sewer Disposal Plant, a

visit to the Playhouse Theater to see Clifford Odets' "The Country Girl," and one meeting was devoted to a discussion of Arlene Tad Tinkler's thesis, "Proposed Hospital for Kansas State College." Tad stressed the importance of developing a hospital plan with strict adherence to the functions involved.

Chicago members will be glad to know that their friend, Frankie Barnett, now of Galveston, is in the 33-1/3% of the Houston membership who will be claiming new exemptions on their 1954 tax returns. The others, Chairman Ann Tyllick, Peggy Ray, and Dassia Porper, had their babies in January and February.

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## CURRENT LITERATURE

Economics and the Engineer. Philip M. McKenna. Mechanical Engineering, pp. 13-16 (January 1954) - The author attempts to "direct attention to the striking parallels between the present perils of false thinking in monetary policy and those engineering problems with which we are familiar." A review of America's economic development with and without the gold standard.

Engineering America's Future. Gwilym A. Price. Mechanical Engineering, pp. 21-22, 30 (January 1954) - The engineer, who has led the way in technological development, must continue to lead in the world's moral and social development. This challenge to the engineer's capabilities should receive as much attention as a challenge to his technical ability.

Lillian M. Gilbreth, Hon. Member SWE, ASME, was recently elected an honorary member of the Phillipine Association of Mechanical and Electrical Engineers. Dr. Gilbreth is presently on a trip around the world. She spent six weeks in Formosa with the Purdue University team. Her trip includes visits in India, Madrid, and Brazil, where she attended the tenth International Management Congress, February 19-24, 1954, in Sao Paulo.

Atomic Squeeze on Engineers. Business Week, pp. 70-72 (January 23, 1954) - About 60% of the AEC's specialists are basically engineers. The number of engineering graduates has been shrinking ever since the 1950 bumper crop, while the number of engineering jobs in industry has jumped six times faster than industry as a whole has grown. AEC is expected to need 5,000 engineers by 1956, one-fifth of the 25,000 estimated to graduate.

College Recruitment in 1954. Stephen Habbe. Management Record, pp. 6-7 (January 1954) - This year 9% more engineers, chemists, and physicists will be needed than last year, when companies were able to get only 64% of the engineers they desired. These figures are from a report by Dr. Frank S. Endicott of Northwestern University. Average 1954 starting salary for engineers (155 companies reporting) will be $345, a 7.3% increase over June 1953.

## NEW WORLDS IN MOTION
or
"New Figures With New Facts"

Now perfection is appearing,
In the field of engineering,
It's amazing all the triumphs we have won.
It's a world that's never static,
Everything is automatic,
Why you simply push a button and it's done.

Why you haven't any notion,
'Til you've seen New Worlds in Motion,
With its miracles and magic on display.
When you've seen the many ways and means,
Of making streamlined limousines,
You'll know the engineer is here to stay.

But it used to be they'd fail,
If they didn't have a male,
To create the plans and make up the design,
Now we have our just desserts,
Engineers are wearing skirts,
And to make things worse they're really doing fine.

And aside from being active,
You'll discover they're attractive,
And their efforts haven't really gone for naught,
For the situation's moving,
And I think the point they're proving,
Is that Ladies have more talent than we thought.

Lou Corbin, WFBR, Baltimore

Mr. Corbin dedicated this poem to Lucille Pieti (see Detroit Section News, page 18) when she was a guest on the WFBR "Every Woman's Hour" in Baltimore last year. We thank Mr. Corbin and WFBR for their permission to reproduce the poem in our publication.

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## FROM THE EDITORIAL DESK

Can we give the Pittsburgh Section a gold star? They get our vote for the most cooperative section of the year. Individually or collectively, they always produce what we ask for--and before the deadline, too. We hear that this spirit of cooperation is also much appreciated by other than the JOURNAL staff. Thank you, Pittsburgh!

We wonder why more sections don't send in information on what they are doing to further the aims and objectives of the SWE. Not that we don't appreciate hearing of your meetings, social or otherwise, it is just that we would like to know you <u>are</u> working on these objectives. Or are you?

Algonquin 4-0931

**MURAD**
**Textile Print Works, Inc.**

LILLIAN G. MURAD
Vice-President

206 Mercer Street, New York 12, N. Y.

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BLoomfield 2-2971

**NEWARK CONTROLS**

B. A. HICKS
Vice-President

15 Ward Street Bloomfield, N. J.

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ALgonquin 4-0931

**MURATEX CHEMICALS**
**Textile Chemical Auxiliaries**

206 Mercer Street, New York 12, N. Y.

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POWER
EQUIPMENT

BOILERS, DIESELS, TURBO-GENERATORS,
MOTORS, TRANSFORMERS, SWITCHGEAR

Dot Merrill, Member SWE
MERRILL and COMPANY
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HArrison 7-8289

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**CROSBY FIELD**

**President**
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**MARY E. FIELD**

**Assistant Engineer**
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