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# WISCONSIN *Alumnus*

February 15

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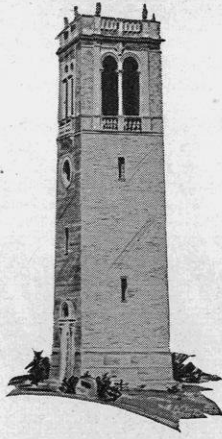
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*founders day issue*

The University

of Wisconsin

in an Atomic Age



# WISCONSIN Alumnus

Official Publication of the Wisconsin Alumni Association

Volume 58

FEBRUARY 15, 1957

Number 9

## Articles

Introduction .....	5
<i>By Lindley J. Stiles</i>	
Potential Unlimited .....	6
<i>By Earl D. Johnson</i>	
Pathway to Progress .....	11
<i>By Farrington Daniels</i>	
The Goose That Lays the Golden Egg .....	12
<i>By Ellis P. Jensen</i>	
Horizons of Higher Education .....	14
<i>By Lindley J. Stiles</i>	
The Changing Scene: IV .....	18
Exploring the Unknown .....	20
Human Relations: Key to Peace .....	23
<i>By Stanley Allyn</i>	
Thirty Billion Volts! .....	26
<i>By George Richard</i>	
University Budget Request Progress .....	29

## Departments

Keeping in Touch with Wisconsin .....	3
Compendium .....	30
Campus Chronicle .....	31
Wisconsin Women .....	32
Sports .....	33
Alumni Club Bulletin Board .....	34
Alumni .....	37
Weddings .....	37
Necrology .....	39

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Joan Ackley, '57 .....	Student Editor

## ★Sidelines

**COVER.** An especially significant group of articles has been gathered by the *Alumnus* for this Founders Day issue, which observes the founding of our great University of Wisconsin on February 5, 1849, in an age which was just beginning to feel the effects of the industrial revolution. Now, more than a century later, we are entering another age which holds even greater promise . . . if we rise to meet its challenges.

We're pretty proud of this issue and of the contributors' close association with the University of Wisconsin as Regent, faculty members and alumni. It's concrete evidence that the University has long been playing a hand in producing the leadership upon which this nation depends.

More such evidence is provided by the current information provided in our Alumni Club Bulletin Board. At Founders Day meetings all over the country, distinguished speakers are providing food for thought to celebrants of the University's 108th birthday. Many of them are presenting messages just as significant as those in this magazine; to tell the truth, the article by Earl Johnson, "Horizons Unlimited", had its origin in a Founders Day address of 1956.

\*

And, offhand, how do *you* like the bill of rights these days? This query was directed to 500 students and 500 teachers attending UW during 1956 through a questionnaire which paraphrased the 14 guarantees of freedom. Surprisingly enough, less than two per cent approved the bill in its entirety! UW sociology professor Robert McGinnis found average acceptance of each statement was 66 per cent. An average 40 per cent disagreed with any particular item. "It would seem that the bill of rights is still a radical liberal document," Prof. McGinnis said.

THE WISCONSIN ALUMNUS, published once monthly in December, January, February, March, April, May, June, July and September, and three times monthly in October and November. (These extra issues are Football Bulletins.) Entered as second class matter at the post office at Madison, Wis., under the act of March 3, 1879. Subscription price (included in membership dues of the Wisconsin Alumni Association) \$2.50 a year; subscription to non-members, \$5.00 a year. Editorial and business offices at 770 Langdon St., Madison 6, Wis. If any subscriber wishes his magazine discontinued at the expiration of his subscription, notice to that effect should be sent with the subscription, or at its expiration. Otherwise it is understood that a continuance is desired.

## keeping in touch with Wisconsin

### BUDGET MEMO TO ASSOCIATION MEMBERS:

The University of Wisconsin's biennial budget request for 1957-59, now on its voyage through executive and legislative chambers in the State Capitol, sought an increase of about \$12 million over current two-year expenditures. Much of this increase, you remember, was earmarked for higher faculty salaries and for taking care of larger enrollments.

On January 30, Governor Vernon Thomson presented his budget message to the 1957 Legislature. He and his advisory staff had analyzed the University's fund request and weighed it against other departments' needs and against the state's financial resources. His recommendation (reported in detail on page 29 of this issue) included a substantial salary increase, although not as much as the University and the Coordinating Committee for Higher Education had requested. The Governor also made some other adjustments and his suggested budget now calls for an increase in University biennial appropriations of about eight and one-half million dollars.

What was the reaction of the University to Governor Thomson's message? We asked President Fred this question, and he commented:

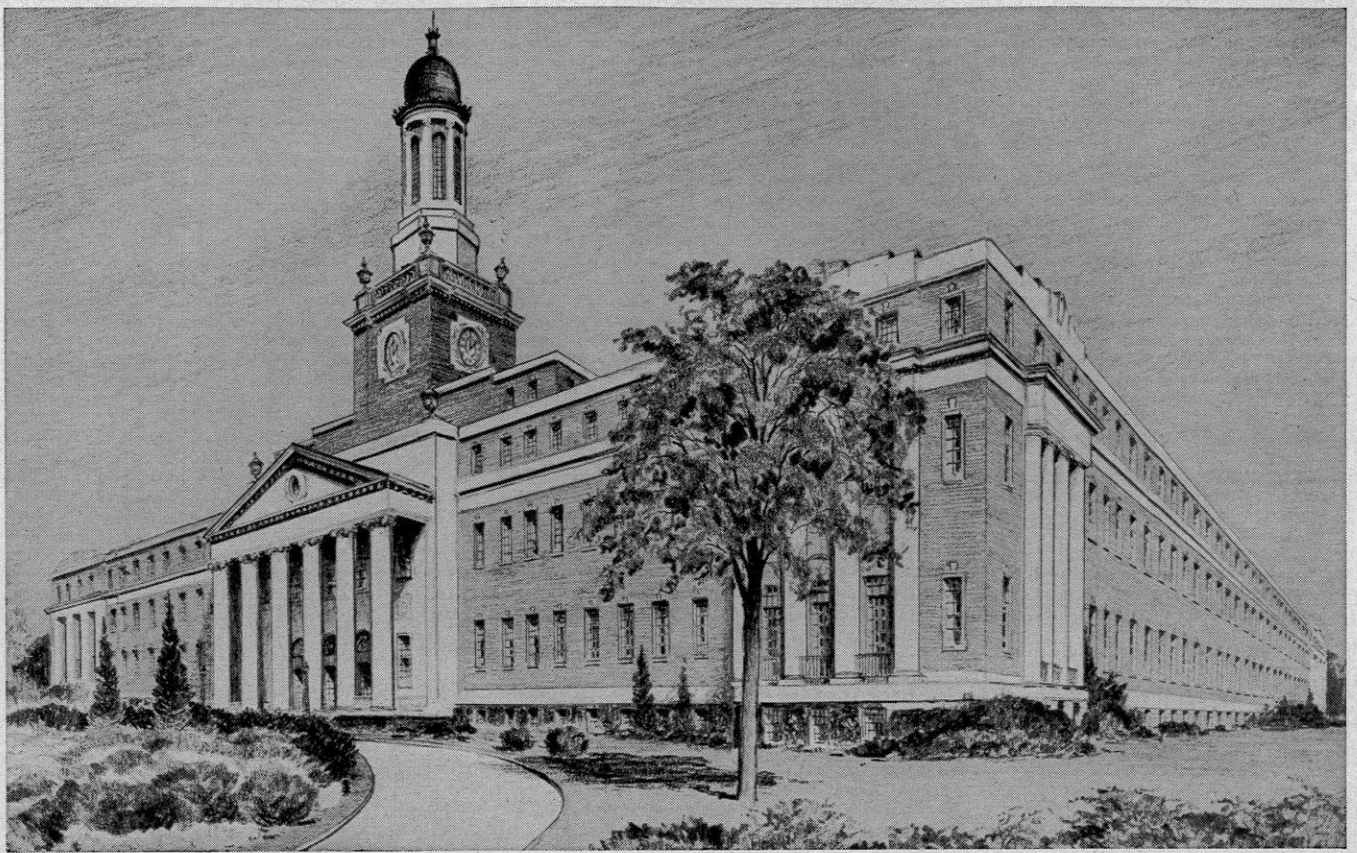
"Governor Thomson, in his budget message to the Wisconsin State Legislature, has shown a sympathetic understanding of the University of Wisconsin's financial problems. This proposed budget will make it possible for the University to take care of the expected increased enrollments at about the same level of staffing as we now have. It also provides minor improvements in our educational and research programs."

"The faculty salary increases are not as great as we need," the president continued, "but we hope they will allow us to reverse the downward trend of the past few years in our competitive positions. We are especially pleased to note that the Governor has given support to the improvement of the Teachers' Retirement system, as well as to the Civil Service Employees' Retirement system and rates of pay."

"We hope the Joint Finance Committee of the Wisconsin State Legislature may see fit to provide added assistance to the University budget."

Our University needs an adequate budget to provide the intellectual leadership Dean Stiles describes on page five of this issue: 'Nations which educate their people best will hold the strongest positions in the critical ideological conflict that now grips the world'.

*John Berge*



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# The University of Wisconsin in an atomic age

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an introduction  
by Lindley J. Stiles

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**O**NE CHARACTERISTIC of the atomic age is already established: it places a high premium upon the discovery, development and use of intelligence. In a more dramatic manner than perhaps has been true in the past, the future belongs to the educated man; provided, it must be added, he belongs to a nation of educated men. For, in an urgent sense, those nations which educate their people best will hold the strongest positions in the critical ideological conflict that now grips the world.

Higher education, often viewed as a luxury for most and a necessity for only the few, is confronted with expanding horizons of responsibility and opportunity which have been illuminated by the bright atomic flashes of the past decade. Institutions of higher learning are already being challenged to develop the intellectual leadership required for national survival, in case of war, and the full utilization of atomic energy to improve man's welfare and happiness, in times of peace. The atomic age, whether it spawns war or peace, has its roots deeply planted where first it was germinated—in the laboratories, libraries and classrooms of our colleges and universities.

# POTENTIAL

By Earl D. Johnson, '28

**A**BOUT FIFTY YEARS AGO the University of Wisconsin, under the leadership of a small group of brilliant men, set in motion a social experiment which was destined to have a profound effect upon the state and eventually upon the entire nation.

This, as you all know, was the "Wisconsin Idea," a product of the combined thought and effort of Charles R. Van Hise, Richard T. Ely, John R. Commons of the University and Governor, later Senator Robert M. LaFollette. The "Wisconsin Idea" expanded to encompass what amounted to a complete regeneration of a society which had long since proved itself unable to cope with the social and economic problems of the Industrial Revolution.

In a very brief period, the Industrial Revolution had built a complex, interdependent economy in a society which continued to be governed by the principles and precepts of an earlier agrarian age. Yet few individuals of that day had any comprehension of the vast social implications which were flowing from the immense productivity of the machine.

*Planning is essential  
as we stand on the threshold  
of an atomic future*

Convair's new delta-wing supersonic jet bomber  
General Dynamics Photo



# UNLIMITED

There was a notable lack of analysis and planning for the future. Even those of our grandfathers' generation, who were disturbed by the evidences of extreme social imbalance in post Civil War America—the bloody strikes, the chronic depressions, the slums, the agrarian distress—either resigned themselves to a kind of economic-fatalism or followed the lead of Herbert Spencer in borrowing and applying Darwin's evolutionary theories to justify "the survival of the fittest" in society.

Although there were sporadic political protests and well meaning but highly theoretical analyses of the fast accumulating problems, nothing practical was advanced until the "Wisconsin Idea" gave birth to the Progressive movement. I need not spell out in any detail the Progressive program, nor attempt to enumerate its many specific accomplishments. Suffice it to say that the "Wisconsin Idea" was not only a positive and constructive force for its times but an enduring force for the future. Indeed much, if not all, of the social and economic legislation of the 1930's had its inception in this remarkable joining of the University with government and industry.

In my opinion, the "Wisconsin Idea" was a logical analysis of social problems, and a practical application of far sighted remedial legislation. It was, in all respects, a systematic plan for the future.

Those of us who were privileged to be graduates of such a great university could not help but be influenced by this illustrious example of leadership. Educated as we were in such a fine liberal tradition with its belief in social and economic progress, we look again to the University for leadership and understanding as we enter another era.

For American society is again in the throes of transition brought on by another revolution—the Atomic Revolution—which may well have an even greater impact than the Industrial Revolution.

What does this mean to us as individual Americans?

And especially, what does this mean to the University whose past contributions did so much to bring order and meaning out of the chaos of the Industrial Revolution?

These are two very difficult questions which deal with futures and which will doubtless occupy some of our best minds in the years to come. But as an interested layman with some knowledge of nuclear energy gained from my experience in government and industry, I should like to com-

ment generally on various aspects of the Atomic Revolution. I do this merely in the interest of the common understanding, so that we may evaluate some of the more obvious social and economic changes which are bound to follow.

Only through the analysis of future problems and potentials may we prepare to counteract the imbalance, the turmoil and the waste which characterized the Industrial Revolution. That kind of social and economic irresponsibility we must avoid at all cost because we are dealing now with forces so powerful that they stagger the imagination.

As John Jay Hopkins has stated so eloquently, "We live in an age of unfolding marvels—and of increasing anxieties. The world is uneasily balanced between the limitless opportunities of creative atomic energy on the one hand, and the fathomless destruction of atomic weapons on the other. It behooves all of us, therefore, to think and act in the broadest possible context. Above all, we must as individual persons and as individual nations cultivate and develop a definitive sense of common understanding."

For purposes of defining the problem, let us compare briefly certain broad aspects of the United States in 1900 and in 1957:

Then, the Americas were at peace with the world and enjoyed geographic isolation as well as relative immunity from military attack. Now, we are but a few hours removed by supersonic plane—or merely a few minutes by ballistic missile—from a strong and implacable enemy.

Then, the American economy was geographically self-sufficient—it had just begun to develop the complexity and interdependence of modern industrial society. Now the economy is many times more complex, wholly interdependent as a national industrial organism and as a member of the international industrial society, very much dependent on the outside world for key raw materials.

Then, there were sufficient fossil fuels to support a 1900 kind of economy for thousands of years. Now, economically usable supplies of these vital resources are estimated, in terms of a 1957 economy, at not more than 100 years.

Then the United States had approximately 76,000,000 people; now it is rapidly approaching 200,000,000.

Then the measure of our national economy, the gross national product, was in the neighborhood of \$20 billion. Now it is over 20 times that, and increasing rapidly.

This provides some inkling of the changing social and



economic picture which will be profoundly altered by nuclear energy. But, as you can see, certain basic problems regarding the future are raised. These will call for a continued logical analysis and the development of firm, yet adaptable, planning.

The destructive aspects of nuclear energy are too well-known to require any review beyond the thought that world-wide nuclear war would in all probability not only destroy our civilization but make impossible the development of any future civilization. Harrison Brown has noted that the world is now existing on resources which can be extracted from the earth only with intricate and powerful machines. If nuclear war destroys these machines or the facilities to build them, men will then be unable to reach the materials out of which a new civilization would be built. Our arms would be too short.

It is obvious, then, that only through continued maintenance of our capacity for massive nuclear deterrence may the world continue to enjoy a measure of present security and a possibility for future survival.

Moreover, the peaceful or creative side of nuclear energy is so rich and so productive that it may in time eradicate the basic causes of war, purchasing for the world that security which can't be bought by atomic or hydrogen bomb stock-piles.

**I**F WE CONSIDER nuclear energy as merely a new power source, such as coal or oil or falling water which powered the Industrial Revolution, there is abundant evidence that we are, indeed, living in a new and revolutionary age. For nuclear power, in which I include the probability within this century of controlled nuclear fusion, is virtually inexhaustible. Most land areas of the world seem amply endowed with thorium and uranium, and all the oceans are potential resources for the hydrogen-helium process.

Indeed, if the power from the fusion of hydrogen atoms to form helium can be controlled, the world will have a power source to last for a billion years. With controls of atomic fusion, a single gallon of sea water might provide the same energy as 300 gallons of gasoline, and ships—to cite only one example—will draw limitless propulsive power from the very oceans in which they travel.

This possibility alone may and should, I think, alter drastically the traditional economic and military concepts of national strength and wealth based on fossil fuel resources that are now dwindling under the tremendous energy demands of a world which is as yet only one-fifth industrialized. In fact, a striking paradox exists today where atomic utilization and technology is retarded in the United States simply because of our great wealth in coal and oil, fuels which are irreplaceable and which in no way approach the potentials of atomic energy.

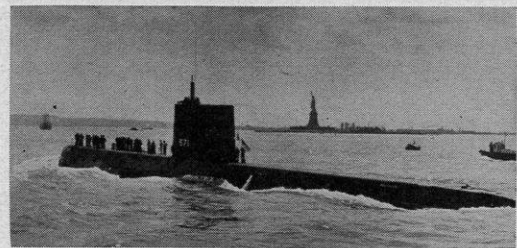
It is not inconceivable, then, that nations which have not as yet developed industrial societies, because of non-existent or inadequate fuel sources, and whose foreign credit balances cannot be exhausted on the luxuries of costly imported coal or oil, will leap directly into the atomic age—while America and other coal-oil rich nations are still utilizing conventional fuels for power.

Atomic energy is not, as yet, competitive throughout the United States, but it is certainly competitive with conven-

tional fuel in many other regions of the world. Therefore, it seems the sheerest of folly to me for Americans to waste precious economic and military time in what are essentially—from a world standpoint—penny-wise arguments about competitive costs of fossil and atomic fuels.

Only an extremely provincial mind would restrict its thinking to the power situation in America today. Geographically, America is only a small part of this world. Utilizing the world-wide [and, I might add, the only correct] frame of reference, atomic power, even in the present, admittedly crude state of reactor technology, is economically competitive or better than competitive with all conventional forms of power.

This cost paradox could leave the United States, now the most advanced industrial state in the world, a laggard in the atomic era at a time when its coal and oil resources are being seriously depleted.



U. S. Nautilus, first atomic submarine, built by General Dynamics.  
General Dynamics Photo

**C**OMMERCIAL POWER IS, however, only one aspect of the Atomic Revolution. Reactor-by-products, such as radio-isotopes or transmuted elements, have already achieved consequences of revolutionary significance in agriculture, medicine, biology and in transportation and industry.

Perhaps the most striking advances have been made in the study of two fundamental biologic processes, photosynthesis, the hitherto mysterious method whereby plants with the aid of sunlight convert carbon dioxide ( $\text{CO}_2$ ) into sugar, and what might be properly termed protein-synthesis, or the equally mysterious method whereby tiny submicroscopic living particles are formed from organic chemical compounds. The unique properties of radio-isotopes have accounted for great advancement in these areas, and in the investigation of basic cell processes.

These investigations promise to yield much in the eventual control of cancer and other cell growth disorders, as well as the ultimate synthesis of protein itself.

Man-made photosynthesis and protein synthesis, of course, could also do much to improve the world's food supplies.

Also of great significance is the employment of radiation to accelerate mutation in both plants and animals. Although most mutations are bad, or of no use, occasionally one is of great value: the progenitor of a new and improved breed. In plant breeding, more improved species have been developed by exposure to radiation in the past decade than have occurred over the past century.

In medical research, atomic radiation of tumors is fast becoming one of the most effective agents in the battle

against cancer. As a measuring device, radioactive tracers are proving of immense value in the petro-chemical, chemical, machine tool and other manufacturing industries.

Nuclear energy has already proven technically feasible for marine transportation with the successful operation of the world's first nuclear-powered vessel, the "U.S.S. *Nautilus*." The *Nautilus*, as you may know, has now steamed over 55,000 miles before requiring new fuel. Recent studies indicate that nuclear marine propulsion is at present economically feasible for bulk carrying of freight low in cost per unit of volume. And as marine reactor power plants become more efficient with improved designs, we may expect that atomic powered merchant and passenger vessels will rapidly displace many oil and coal powered ships. From 1960, nuclear energy will power all U.S. Navy capital ships.

Air transportation, too, bids fair to being revolutionized by nuclear power. An atomic-powered plane, which Gen-



eral Dynamics is currently developing, will be a reality. Practically limitless range, greater power and reliability, and independence from the atmosphere, are the vast improvements which atomic power will bring to air transport.

**T**O THE UNIVERSITY of Wisconsin and to other American universities must go the major credit for many of these great advances. Although many major programs have been initiated and sustained by the government and by industry, they have been carried out by university-trained scientists and engineers and frequently in university-owned laboratories.

Moreover, the university laboratory has acted as the prototype for all government laboratories and has been a powerful force in determining the character of our vast national research effort. While making outstanding contributions in applied research and technology, the universities also continue to carry on, oftentimes without government or industry encouragement, those basic or pure research efforts for which no immediate application is visualized, but which form the essential matrix for all future scientific and technical, and hence, social and economic progress.

The University of Wisconsin, as it always has in the past, is playing a significant role in both the education and training of scientists and engineers and in nuclear research. Twenty research groups involving 15 University departments are studying, with the aid of radioactive isotopes, chemistry, soils, plant pathology, biology, zoology, enzymes, botany, entomology, physics and several areas of medicine.

Of particular interest and importance is the research in physics. The University has just completed an advanced electro-static generator which will be used in high-energy research. The University's first such machine, by the way, was spirited away in the dead of night under great secrecy to Los Alamos by the AEC during the early days of the war. The new electro-static generator was designed and built by a University group working under Dr. R. G. Herb. (See page 26, this issue.)

Midwest Universities Research Association (MURA) composed of eight midwestern universities, including the University of Wisconsin, is seeking to build in the midwest a multi-billion volt atom smasher costing millions of dollars.

Dr. Farrington Daniels, chairman of the chemistry department at the University, received last year the William Gibbs award for his atomic energy work during World War II. This year, Dr. Daniels was awarded the Priestly medal

#### ABOUT THE AUTHOR

*Earl D. Johnson has had a striking career as a pilot in the U. S. Air Force; as an economic consultant; as assistant secretary and undersecretary of the army under Presidents Truman and Eisenhower; as president of the Air Transport Association, and more recently as senior vice-president of General Dynamics Corporation, a highly modern industry with products ranging from jet-aircraft to nuclear-powered submarines.*

of the American Chemical Society for distinguished service to chemistry.

Dr. David Bradley, a University of Wisconsin alumnus, wrote the famous book on atomic radiation effects, "No Place to Hide."

Dr. Edgard Chester Creutz, noted physicist now with General Dynamics as director of research of the General Atomic Division and director of the division's John Jay laboratory for pure and applied science, obtained his B.A. degree in physics and mathematics from Wisconsin in 1936. He remained at Wisconsin until 1941, for a year as a research associate and later as an instructor in physics. He played a leading role in the World War II development of the atomic bomb and until recently was head of the Department of Physics and Director of the Nuclear Research Center of the Carnegie Institute of Technology.

No one can specify what this peaceful atomic future holds. But of one thing we can be certain, it is permeating and will change in varying degrees the most intimate facets of our lives—our social, economic, political and spiritual lives.

We may be entering an age of energy in plenty, ushered in by the almost unbelievably concentrated and versatile power of the atom. Abundance of energy means abundance of time for man to devote to creative, artistic and spiritual values.

In this period of transition, however, man will need guidance and education as never before, not only to evaluate the essential meaning of this new age and adjust him-

self to it, but also to bridge the mighty cultural gap which separates scientific and technical advance from our lagging social and economic institutions.

**WE ARE ALL FAMILIAR** with the more obvious characteristics which distinguish man from the lower orders. But to me one of his most significant, though perhaps least recognized, differences is man's inherent capability to analyse and plan his future. And the more complex and interdependent human society becomes, the more essential is this learned characteristic to progress and even survival. For the degree to which he can project his plans into the future measures the worth of his planning and the orderliness of his society.

American society, I feel, has made a great deal of progress in recognizing the importance of this peculiar human attribute. Steps have been taken, particularly in the universities, to develop it on a wide scale.

But even in this atomic age, the vast majority of our people still lack a firm grasp of individual planning and of their personal interdependence with the individual planning of those millions of others who make up our nation. We have accepted to a certain extent the fact that none of us may live alone, and that industry and government have a definite social responsibility to guarantee the continued security, health and well being of society. But on the whole we have suddenly entered into the atomic age with little conscious analysis of what impact this age will have on society and thus scant realistic planning for the atomic future.

We are in dire need of enlightened leadership.

As true today as it was 2000 years ago is Paul's admonition to the Corinthians, "For if the trumpet give an uncertain sound, who shall prepare himself to the battle?"

The University of Wisconsin, now standing at the highest point yet of its illustrious career, *can* and *must* provide the thought and the impetus for a realistic realignment of the "Wisconsin Idea" to embrace a new plan of action for the atomic age.

This task will be far more difficult than that which faced President Van Hise and his colleagues in 1900. For they were confronted with a situation which was the obvious result of three decades of accumulated neglect. Essentially they were dealing after the fact with specific causes and specific effects which pointed to tangible solutions. Moreover, Theodore Roosevelt, Gifford Pinchot and other notable figures, together with popular writers such as Frank Norris and Upton Sinclair and popular magazines such as McClure's and Cosmopolitan made reform not only respectable but awakened the public conscience. American society was ripe for the acceptance of the kind of program embodied in the "Wisconsin Idea."

Now, however, the evidence is not in; the public is largely unaware of any need; and the impact of the atom is just beginning to make an impress. The analysis, therefore, must deal mainly with expectations rather than with consequences. But this in no way lessens the urgent necessity for such an undertaking nor mitigates the need for leadership now.

I am confident that the University of Wisconsin, together with other American Universities, and in consort with far-sighted men of government and industry, will make timely analyses of the probable consequences of the atom and will formulate new approaches to a changing social environment.

It is evident already that many areas of the American scene deserve analysis in the light of nuclear energy.

For example, there is an urgent need for a much broader understanding on the part of the public to the increasingly important role of the scientist and the engineer in our society. And, conversely, the scientist and the engineer must understand and appreciate more fully the society in which they live and which will be influenced by their work. Thus, there must be more emphasis on research in social sciences and especially on the development and application of systematic theories to assure commensurate social progress.

Another problem which is rapidly making itself manifest is the mounting pressure on the universities from both government and industry for the services of top academic people, either for direct employment or for sponsored research programs. It is worth asserting that the traditional principles of higher education must retain their vigor. This is an absolute necessity for scientific and social progress. For if the teaching of the new generation is neglected or in any way weakened by the immediate material needs of the present, the great scientific, technical and social promise of the atomic age could be dampened significantly. Surely, it would be unwise to exploit the future merely to expedite the present.

In addition, modern over-emphasis on science and technology to the detriment of the liberal arts must also be examined for its probable future consequences.

A third aspect which bears directly on these incipient problems is the possible neglect of the primary teaching function due to the incursive demands of research activities.

**I**F THE UNIVERSITY of Wisconsin is to provide this guidance and education in the same eminent and inspired fashion it has in the past, it must possess the same freedoms as are reserved for our citizens by the Constitution. In such an atmosphere it can continue to serve as a market place for new ideas and thus train men and women for the future. Only in this way will the University produce the free, analytical, imaginative minds that will lead mankind to higher and higher material and spiritual levels in this fascinating, limitless, new atomic world.

Arthur O'Shaughnessy, that poet scientist of the industrial revolution, wrote:

*We, in the ages lying in the buried past of the earth,  
Built Nineveh with our sighing, and Babel itself with  
our mirth;  
And o'erthrew them with prophesying to the old of the  
new world's worth;  
For each age is a dream that is dying or one that is  
coming to birth.*

For the sake of our own and the unborn generations yet to come, our University must lead the way in realizing the full potential for good which the atomic "dream" that is coming to "birth" affords.

# Pathway

## to Progress

by

Farrington Daniels

**A**TOMIC FUEL COMES now from uranium; later it will come from thorium, and possibly from the hydrogen of the oceans in the distant future. Its use calls for very careful and expensive precautions to prevent damage from radio-activity. Because atomic power can be used for war and because it is possible to destroy a million people in a minute, great wisdom is needed to prevent the misuse of atomic power. A realization of the destructive possibilities of atomic power is the most sobering thought of our times. It is already at the heart of much international diplomacy. . . .

Don't blame the atom for potential racial suicide. Don't blame the scientists and engineers who make the release of nature's energy possible. The carbon atoms of gasoline can be used either to power a death dealing military plane or to run a family automobile, and the nitrogen atoms of the air can be used either for military explosions or for fertilizer. These potentials for misuse exist. Someone has said, "The

world would be a wonderfully fine place if it weren't for the people that live on it." But someone else has said, "Nothing is stronger than the atomic bomb except the heart and the mind of man." Let us have faith in man.

It will take all the wisdom of our statesmen, all the international good will that we can encourage, all that the United Nations can do and all that our young potential leaders can do to avoid international destruction and to continue on the road to abundant industrial energy. Let us not think either that *all* the responsibility lies on the other side of the iron curtain. Men in our own country have power over life and death such as was never before imagined. It is up to us to make sure that public opinion is vigorously expressed and that no irresponsible person ever gets



*Prof. Daniels will receive American chemistry's highest award, the Priestley Medal, in April. The words on this page are from a 1956 Convocation address.*

into a position of power over our atoms. Our present energy-rich civilization is like a new super high-powered automobile—it calls for self-control, sobriety and consideration.

Our future progress and safety depends on finding and educating leaders in science and technology, in statesmanship and administration, and in professions and business. It depends equally on the education of all our citizens so that they will understand issues clearly and help to make decisions wisely.

And in our international affairs, on which our safety depends as never before, we must realize that conditions have changed. We now have the sources of energy and the technologies with which to give vital help to the non-industrialized countries. We have a broader base for unselfishness — the whole world — than any other nation has ever had. Let us give this help freely and wisely. The best road to happiness for a nation, as well as for an individual, is unselfishness.

# the goose that lays the golden egg

by Ellis P. Jensen



#### ABOUT THE AUTHOR

*Ellis Jensen, the newest member of the University of Wisconsin Board of Regents, has an extensive academic background—including a Ph.D. in ancient history from the University of Chicago—as well as years of business experience with the Allis-Chalmers company and as president of the Janesville Sand and Gravel company, a family business.*

**I**F YOU WERE assured of a \$9,000 eventual return on a \$3,000 investment, would your interest not be aroused?

The taxpayers of our State are being asked to invest about \$3,000 for four years of education for each student attending our University and State Colleges (\$769 per year, to be exact).

What return on this \$3,000 may the taxpayers expect? In hard money, about \$9,000. Here is how: a university or college degree adds to a person's lifetime income, on the average, at least \$100,000. These extra earnings will be taxed about 6 per cent by the state, and so the state treasury will get back \$6,000.

But that is not all. During their productive years people contribute more wealth to society than they receive back in personal remuneration—about 50 per cent more. This additional wealth becomes taxable by the state in many forms, and should net an additional \$3,000.

Thus, the state's \$3,000 investment in a student finally comes back as about \$9,000 in extra tax collections.

We all agree that higher education produces cultural, social, professional and national defense values of immense importance. But we can also value higher education as a sound, hard-headed investment by the state, even to the point of finally returning that investment to the state treasury and more to spare.

**M**OST OF MANKIND ekes out a sub-standard existence. A backward nation may possess an ancient and honorable culture, it may practice high ethical and religious standards, it may have immense untapped natural resources, and its people undoubtedly possess good native intelligence.

But, those values alone fail to raise that nation to a decent living standard if education both in width and depth is lacking.

Education is, above all, the goose that lays the golden egg. Until a retarded people become literate and technically trained, and until a nation provides higher education to a large percentage of its mentally well-equipped people, a national high standard of living is beyond hope.

The amazing continuance and accel-

*Here's dollar-and-cent proof that higher education  
is good business for the state*

eration of American prosperity is above all due to mass education which lifts the unskilled to a skilled status, and to higher education and research which discover and perfect scientific facts and methods which are quickly translated into the production of new wealth and the increase of the gross national product.

We would not be as prosperous as we are today had there been no G.I. Bill of Rights. That program for higher education of veterans cost the national treasury \$14½ billions. But it provided college educations for some three million young men, more than half of whom might otherwise never have become college trained.

In almost every technological field this country is still short of college-trained personnel. How much worse our problem today had there been no G.I. Bill! Our present level of national productivity simply could not have been achieved without these extra three million college-trained G.I.'s.

These men will add in their lifetime about \$450 billion more to the gross national product than they would had they not been college trained. The Federal Tax collectors will get from their increased output an additional return of about \$100 billion, and so, on a dollars and cents basis alone, the \$14½ billion spent on the G.I. Bill was sound

national economics and smart fiscal policy.

**L**ET US COMPARE the annual \$769 per student which the State Coordinating Committee of Higher Education is requesting, with recent annual expenditures per person by the state for other types of citizens.

State cost of higher education .....	\$ 769
Aid to dependent children .....	420
State Boarding Home Care .....	650
Assistance to the Aged .....	704
Aid to the Blind .....	766
Aid to the Disabled .....	998
State Mental Patients .....	1,692
Inmates of five penal institutions .....	1,800

Every thoughtful person is glad we are doing this much for the children and adults requiring state assistance. Yet it is a fact that this program as far as it has gone was made possible because educated people created an economic society which produces more, and so raises the standard of living to the point where public aid can be extended generously as compared with yesteryear.

Further improvement in public assistance to those in need rests squarely upon our ability as a people to raise our state's productivity even more. This, in turn, rests upon our educating more and

more people and thereby increasing their creative value to society.

If we want a continuing prosperous and strong economy—and who does not—we must elevate more and more young people beyond the high school level to the college and university level of achievement. Moreover, we must invest important monies in basic university research which leads to the production of new wealth.

If our University and State Colleges continue to be staffed with high-caliber professors, adequately compensated so that they will remain among us to educate our sons and daughters, we have sound reason to believe that our State's economy will continue its remarkable rate of improvement.

And in so doing we will not deplete our state treasury, but add to it as the years go by. Our highly educated people, streaming forth in increasing numbers, will add, year by year, to the quality and the quantity of our gross state product. The higher personal compensation they will receive for such valued services automatically will become higher taxable income to our state treasury.

Among all the arguments we can make for strong state support for higher education, we surely can add this argument—it is good business for the state. It pays out.

# HORIZONS

By Lindley J. Stiles

**T**HE UNIVERSITY of Wisconsin, like other leading universities, is confronted with a complexity of forces which will influence, for better or worse, the manner in which it develops the new horizons of higher education. The rapid growth of population since 1940, tremendous increases in scientific knowledge, technological developments, both old and new problems in human relationships at home and abroad, expanding political conflicts, economic pressures—all in one way or another shape the destiny of a great university.

The forces converging upon the University today direct attention to a variety of acute problems which must be solved if the University of Wisconsin is to remain great.

Faculty salaries must be improved to permit the University to hold its distinguished professors and to attract outstanding younger people who will be the leaders in teaching and research when today's generation of children are in college.

Buildings must be built, equipment and other facilities provided.

In a more fundamental sense, however, all the forces affecting higher education come to focus ultimately upon the educational theories and practices that give direction to the faculty and substance of the educative process itself. For this reason, members of the administration, faculty and Regents are asking whether the University of Wisconsin dares to face the atomic age without first under-

taking a careful re-definition of the goals the University is to pursue, and a thorough re-assessment of the theories of education, curricular provisions, and instructional procedures by which the University attempts to carry out its mission.

Already the University along with the State Colleges, under the leadership of the newly formed Coordinating Committee for Higher Education, is engaged in an extensive study of higher education in Wisconsin. This project, which receives immediate direction from a joint staff team, is involving numerous faculty committees in studying ways in which Wisconsin's educational resources including those in private colleges, may be marshaled to meet the assignment of higher education in the future.

In addition to the overall study of higher education which is going forward, the Regents and the Administration of the University of Wisconsin have discussed the need for an intensive, internal study of the University itself. This study would clarify the University's task and identify the adjustments which can be made to meet present and future strains upon it without weakening the quality of its educational services. That such a study should be under consideration at this time only illustrates how rapidly conditions in higher education are changing. For immediately after World War II a University Committee under the chairmanship of Dean Mark H. Ingraham completed a valuable and comprehensive

# of higher education

study of the functions and policies of the University as they could be visualized at that time.

The urgency of a re-assessment of the goals, educational theories, curricular arrangements and instructional procedures in colleges and universities can be seen best, perhaps, against the background of certain major forces which promise to be influencing higher education in the years ahead.

**I**F ONE VISUALIZES a University in Madison with 25,000 to 30,000 students with its Milwaukee Division enrolling an additional 10,000 to 12,000, each state college with an enrollment of around 2,500, and all the private colleges serving twice as many students, he will have a fairly clear picture of the increased student load which institutions of higher learning in Wisconsin will be carrying by 1970. These children have already been born and are now crowding elementary and high schools.

Contrary to the fears of some, the increasing numbers of youth coming to college will possess good intellectual potential for college work. Records on the University of Wisconsin student body, over a twenty-five year period, show that the quality of students, as judged by intelligence test scores and standing in high school class, has improved rather than deteriorated.

Other studies show that forty per cent of the nation's top students, (those in the upper quarter of their high

school graduating classes), do not now enter college. Insufficient motivation and lack of financial support have been identified as the two major causes for this loss of high quality intellectual talent. Expanded scholarship opportunities, and intensified efforts by elementary and secondary school teachers to identify the superior student early and encourage him to continue in school, combined with expanding employment opportunities for college graduates, promise to induce greater numbers of superior students to enter college in the future.

The expanding enrollments pose questions that relate directly to the mission of the University and to existing educational theories and practices. The mounting costs of college education will prompt many to ask for limitations on the numbers admitted to colleges and universities. Proposals that the University and other colleges set admission quotas, based upon ability and educational objectives of students, are certain to be made.

Should the State of Wisconsin establish a system of junior colleges to provide the first two years of college work and training of a terminal nature for those who do not go beyond the sophomore year? This means of giving relief to the facilities of four-year institutions and of reducing the cost of higher education generally, will be explored.

The University of Wisconsin will, no doubt, be confronted anew with the

proposition that it should become primarily a graduate and research and service institution.

Over and above all else, the University must examine what it should and can do, educationally, for the growing student population. Unless careful plans are made in advance, it may merely "roll with the tide", attempting to provide classrooms, laboratories and instructors on an impromptu, crisis-to-crisis basis.

Such a short-sighted procedure would permit the program emphasis and total character of the University to be determined largely by the immediate popularity of given fields of instruction. For example, if present trends in enrollments within the University continue, the School of Engineering and certain of the scientific fields will soon engulf the entire institution, while the humanities and social studies and some branches of agriculture will be relegated to minor assignments within the intellectual community.

To guard against such a pattern of growth, which obviously would cost the University the balance that in the past has made it outstanding, systematic plans must be made to keep future expansions attuned to the total long term needs of the State and sensitive to the accumulated educational experience and wisdom of past developments.

**A**LONG WITH elementary and secondary schools, colleges and universities face a critical shortage of qualified



## *Strong forces compel higher education to re-examine*

and competent teachers. Institutions will be forced to find ways to conserve and extend the teaching resources now available, without making damaging sacrifices in the quality of instruction.

The practice of employing advanced graduate students to assist with teaching and laboratory supervision has often been described as an undesirable economy; yet this type of apprenticeship has represented the only preparation for teaching most college professors receive. Past experience with the use of teaching assistants may prove invaluable in the years ahead when more people will undoubtedly have to be pressed into service in an even greater variety of teaching assignments.

Developments in the field of educational television may help to extend the contributions of outstanding teachers to more students. Closed circuit broadcasts and the use of tele-films are already being tried in a number of universities.

The University, however, will fail in its mission if it does not continue to provide opportunities for students, even in their freshman year, to share some intimate academic associations with professors. To make maximum, and appropriate, use of mass media of communication in teaching, differentiation will need to be made between types of instruction. Some courses can be adapted to large group or television teaching; others demand small classes or even individual instruction.

There are other questions about instructional procedures which college and university faculties will be facing. Here are a few:

Is the practice of giving more faculty time to graduate students, who are the most capable of self-directed, independent study, than to freshmen and sophomore students, who need help, compatible with the wisest use of faculty resources?

Is it possible to place more responsibility upon all students to direct their own study and learning rather than following the traditional "spoon-feeding" type of instruction that requires so much faculty time and may actually develop

docile recipients of knowledge rather than aggressive learners?

Can faculty resources be conserved by reducing the number of optional courses offered?

Are adequate provisions being made for gifted students who are capable of moving through college and graduate school at a more rapid rate?

Is the high rate of failure and drop-out in college, an expensive process both in terms of costs and loss of human talent, caused by failures in teaching in institutions of higher learning as well as by weaknesses in the lower schools?

**T**HE CONTINUING expansion of knowledge is a further fact highlighting the need to re-assess curricular patterns, the organization and content of courses and teaching procedures.

New knowledge which both produced and is being produced by the atomic age cannot always be fitted into traditional academic patterns. The discovery of atomic fission itself was the product of a fusion of knowledge from several branches of science.

Likewise, the critical problems of human behavior and relationships among the peoples of the world, which have been intensified by the force of the atom, challenge the combined attention of various fields of the social studies and humanities.

Already universities are discovering that students trained within tight departmental boundaries, which often have restricted breadth in both undergraduate and graduate work in the past, are unprepared for the new technical and professional assignments of the atomic age. Institutions of higher learning are challenged to pool resources in such fields as engineering, physics, chemistry, mathematics and other sciences to produce leaders uniquely and broadly prepared for the atomic age.

Scientific advancements of the past fifteen years have been made possible by completely new emphases on content in fields such as mathematics. Likewise, knowledge about what makes man be-

have as he does under given conditions and ways of controlling human behavior has increased to a point that, when used for exploitation purposes, it can conquer entire nations. Psychological and sociological pressures have become so potent that they are now the indispensable instruments of a new kind of international conflict called "cold war".

Examples of the effective use of "brain-washing" techniques which persuade individuals to set aside their ideals and convictions, suggest further the urgency of keeping courses and curriculums abreast of recently developed knowledge of human behavior. In fact, the force of new knowledge in the physical and biological sciences and in the humanities and social studies as well, is so powerful and vital in terms of our survival potential as a free people, that it compels the re-organization of fields of study not only in colleges and universities, but also in elementary and secondary schools—which lay the foundation for higher education.

**A**NOTHER FORCE which is influencing the purposes and practices of higher education is the rapidly expanding demand for highly skilled professional and technical personnel.

By 1975, it is estimated, jobs requiring advanced technical training will have increased by seventy-five per cent. During the same period the need for common laborers will have decreased by twenty-five per cent.

The need for greater numbers of highly trained technical personnel, and the good positions open to those qualified, is alone enough to persuade more intellectually able young people to enroll for collegiate and graduate school instruction. In fact, a college education is rapidly becoming to the better opportunities in industry and business what high school graduation represented a generation ago—a pre-requisite for employment.

Demands for personnel for the professions and technical jobs not only influence the purposes which motivate

## *its theories and practices.*

young people to attend college, they exert steady and, at times, powerful influences upon the educational programs of the institutions themselves.

**A**T THE SAME TIME, the forces set loose by the atomic age intensify the need for greater numbers of people to be broadly educated to their highest potential for intellectual and moral leadership. The world begs today, as it has in the past, for men and women of courage and wisdom, dedicated to truth and its application to the problems of man and motivated by unshakable moral and ethical principles.

The University of Wisconsin is fortunate to have always placed a strong emphasis upon the liberal arts, even for students preparing for professional and technical positions. Its program of integrated liberal studies stands as one excellent example of efforts to improve even further the basic and liberalizing education of college students.

The concern of the University for maintaining a proper emphasis upon educating the student for life and citizenship as well as for a job is presently gaining support from leaders in business, industry, agriculture, public service and other fields of work. Their experience in employing college graduates has convinced them that a broad liberal education is essential for the development of maximum potential of individuals in specialized fields.

Technological and industrial changes are taking place so rapidly that it is now almost impossible to train a student in

college for the work he will be doing a few years after graduation. Adaptability has come to be one of the major assets sought by personnel specialists in students coming out of the nation's colleges. Capacity for continued learning looms increasingly important for leaders in every field who will be challenged to keep pace with the staggering developments of the atomic age.

The liberal arts are challenged to examine their contributions to the "educated and moral" person. In spite of experimental programs for foundation and broadening purposes in colleges and universities, many students are still pursuing patterns of liberal arts study that were designed for past generations.

Some were never designed at all.

They came into being largely as the result of pressures aimed more at protecting the vested interests of particular subject fields than at guaranteeing the best possible liberalizing education for students.

Some institutions permit such hodge-podge groupings of introductory courses to meet general education requirements that the basic purposes of such study is nullified.

Furthermore, even in this area of general education the forces behind the sciences and technical training have exerted such influences that programs of the liberal arts and sciences often favor the sciences and slight the arts.

If institutions of higher education are to produce educated and moral people, as well as trained technicians, attention needs to be given to the nature of liberal education the atomic age requires.

**T**HESE ARE some of the forces that prompt the re-assessment of educational theories and practices in colleges and universities today.

Higher education, unfortunately, views its new horizons out of a background of traditions which have not persistently challenged administrative officers and faculties to give systematic and continuous appraisal to their educational objectives and procedures.

In this respect, institutions of higher learning are less ready for the increased responsibilities of an atomic age than are elementary and secondary schools whose leaders, working closely with their communities, have had to justify, step by step, the function and nature of educational programs.

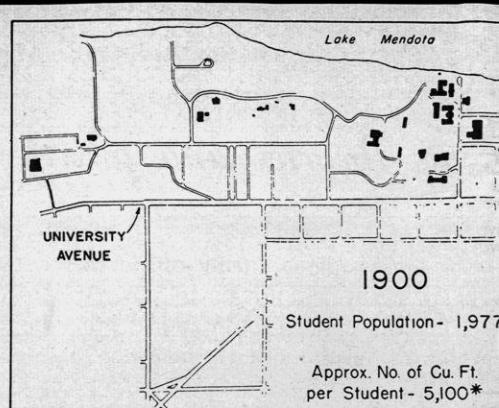
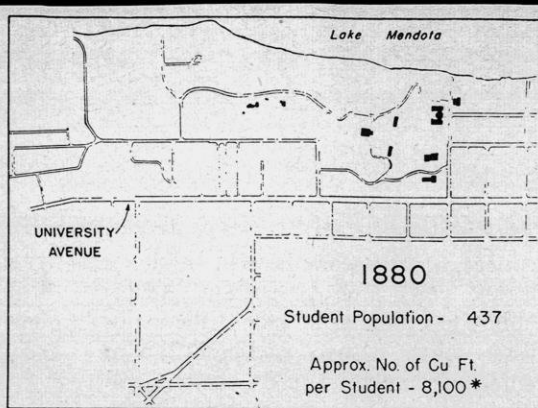
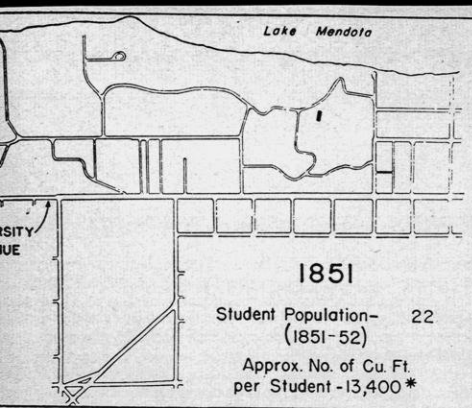
The University of Wisconsin, however, because of its own traditional commitment to service to the state and close association with citizens in all walks of life, is in a strong position to undertake the re-assessment of its educational theories and practices. Alumni and citizens should be encouraged to know that the faculty and Regents are already taking definite steps in this direction.

Those closely associated with the University believe with confidence that the University of Wisconsin, with its history of quality as a research-teaching center of learning, if provided the necessary financial resources and the united support of the people of Wisconsin, will continue to stand as a shining light on the new horizons of higher education in an atomic age.



### *ABOUT THE AUTHOR*

*Eighteen months ago Lindley J. Stiles came to his post as Dean of the University School of Education from a similar job at the University of Virginia. In this time he has gained wide recognition throughout Wisconsin and the Midwest as a gifted, straightforward speaker with up-to-the-minute ideas on education.*



These maps demonstrate how the campus building pattern has progressed.

# The Changing Scene: IV

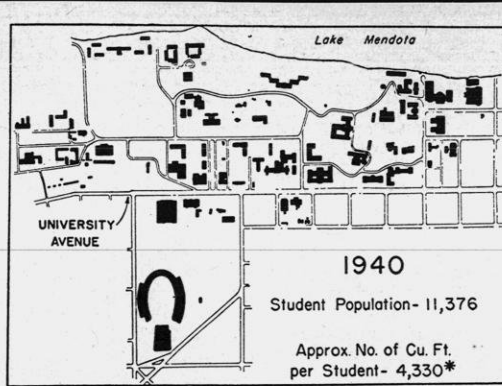
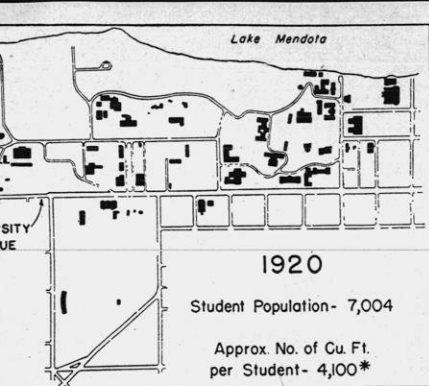
## *The University of Wisconsin New Construction and Improvement*

*Second, Third and Future Biennia*

Administration and General	
Student Services building	\$ 3,070,000
Agricultural Engineering	1,365,000
Agricultural Extension museum and storage building	140,000
Housing (state's share)	5,000,000
Agricultural Library	150,000
Animal Science-Animal Hus- bandry sheep experimental and instruction center on campus	225,000
Animal Science laboratories, class- rooms	2,750,000
Dairy Husbandry Dairy Cattle Center maternity wing	50,000
Entomology building	2,530,000
Farm Short Course dormitory units (2); and forum hall and dining room	1,650,000
Home Economics-Home Manage- ment Houses, rural and urban	85,000
Home Economics remodelling	231,000
New construction and moderniza- tion of present greenhouses	150,000
Seeds building wing	190,000
Buildings and improvements for University farms	660,000
Veterinary Science building and animal quarters	2,750,000
Arboretum Headquarters building	75,000
Plant Propagating facilities & greenhouse, Arboretum	30,000
Athletics and Physical Education Gymnasium (Women and Men)	5,500,000
Intercollegiate Athletics	1,700,000
Engineering Research labs	800,000
Milwaukee additions	15,000,000
Birge Hall (East wing)	2,000,000

**L**AST YEAR, the campus planning commission released a plan for future expansion of the Madison campus which received preliminary approval by the Board of Regents. All proposed buildings and sites, of course, are subject to future revision and approval by the Regents and the State government.

In his first message to the Legislature this year, Gov. Vernon Thomson suggested the possibility of financing some of this new building by repaying borrowed funds from student fees. The Wisconsin Constitution, of course, prohibits the State from directly going into debt beyond \$100,000.



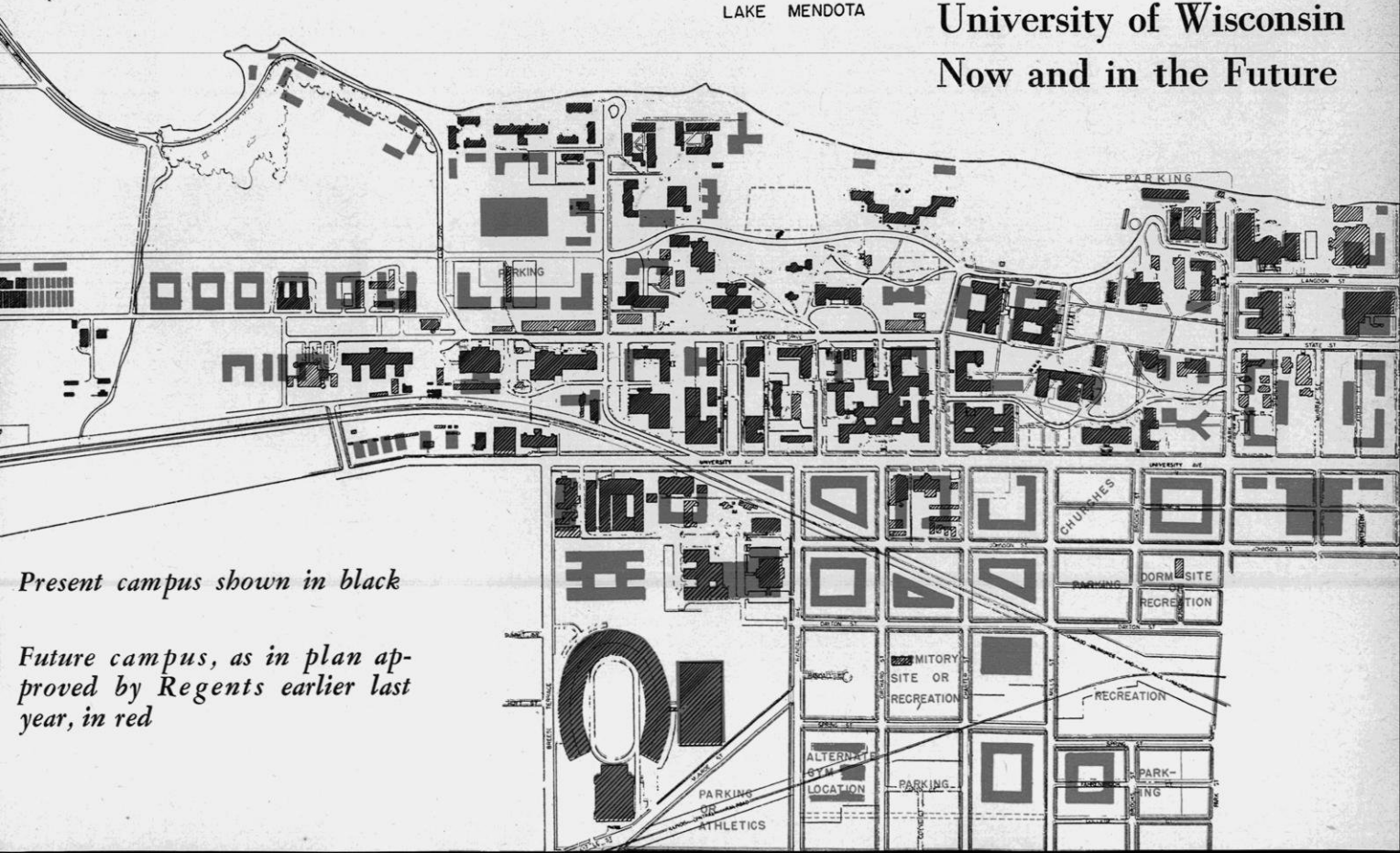
Chemistry and land	\$6,500,000
Music	2,500,000
Rebuilding old Chemistry building for Pharmacy and others	2,750,000
Medical School corridors	120,000
*Hospital additions (Neuro Psychiatry)	2,000,000
Out-Patient Department, Medical School	1,100,000
Medical Research Institute	2,200,000
School for Nursing	250,000
*ROTC-NROTC	3,000,000
Radio and U.W. TV	1,000,000
Central Garage	250,000
Central Heating Station (Additions)	3,300,000

Central Receiving and Storage building	\$ 420,000
Classroom lighting and electrical	110,000
General remodeling and safety devices	1,000,000
Heating and ventilating	110,000
Roads and parking	550,000
Service building	450,000
Water supply and sewers (treatment plant, extensions, etc.)	650,000
Education and Lab School	4,800,000
<b>Grand Total</b>	<b>\$79,161,000</b>

\* Federal funds may be available for these.

LAKE MENDOTA

## University of Wisconsin Now and in the Future



*Present campus shown in black*

*Future campus, as in plan approved by Regents earlier last year, in red*

*"... so Paul Revere tuned in his walkie-talkie to the radar station up atop Old North Church, climbed into his jeep, and . . .*

**A** GLANCE backward into history offers proof that research pays immense returns.

In Paul Revere's day, electricity was mysterious and unemployed. Still undiscovered were many basic facts of nature: bacteria as a cause of disease, the laws of heredity, modern chemistry. Science had scarcely any place in education.

Contrast then with now!

"The life of the common man has been lifted from drudgery and sordidness to a high degree of comfort . . . Innumerable new occupations have been created, giving employment to millions of people." These are the words of Wisconsin Prof. Rudolph Langer, who continued:

"By applying himself steadily and systematically to the discovery, the appraisal, and the understanding of facts, and

to the organization of his knowledge of nature, of social forces and of his own appreciation and creativeness, man has raised himself by his own bootstraps . . . There is no reason whatsoever to suppose that his progress in the future will be any less rapid or less profound than that of the past, if he continues to devote himself, as he has done, to education and research. These functions of a university are therefore important—in the long run of greatest importance—to everyone."

The value of research had begun to be appreciated when the University of Wisconsin was founded in 1849. State statutes provide that the Regents shall "encourage scientific investigation and productive scholarship."

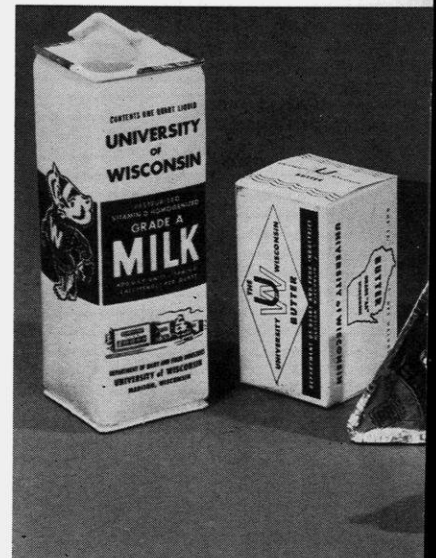
Responsibilities

More research in the social sciences and humanities is a pressing need, President Fred told Governor Vernon Thomson in December. New tools and new techniques in these areas, while their application does cost money, hold great promise of unlocking secrets of human behavior and of closing the wide gap between our scientific and technical advances and betterment of our social and economic institutions.



## Exploring

Financial returns from research have been in products and improved methods of distribution and the consumer. Concentrated milk, dry milk of investigators. One current project concern



# a University

Traditionally, then, the University has been the major research arm of the State of Wisconsin. This role of the University has had two outstanding results: discovery of knowledge that has greatly enriched the economic, social and cultural life of the state, and the forging of a strong educational plan in which teachers are also scholars exploring the unknown.

Particularly akin to teaching is that investigation described by the University as "related research." This is expected from all faculty members; it is primarily individual effort, with the scholar self-motivated, free to follow side roads as well as main highways.

Budgeted research, on the other hand, usually has a fairly

clear objective, and is often undertaken by teams of scholars working together. Only this research is directly reflected in the budget of the University.

Either budgeted or related research may be broken down into two types—*basic* and *applied*. Basic or "pure research" is a sustained, painstaking, usually unspectacular search for explanation of nature's ways. It is mankind going to the sources to find out.

Applied research, where the findings of pure research are turned to practical use, is more immediately usable by society as a whole . . . but often only a thin line divides the two types.

Sources of Wisconsin research funds are varied. They include the State, the Wisconsin Alumni Research Foundation and other individual and corporate donors and the federal government. The state's appropriation is doubly important because many other grants are contingent upon its encouragement of research throughout the University.

# Unknown

"Cross-fertilization" of ideas, involving experts in many fields, is a hall mark of Wisconsin research. One project—dealing with disease-fighting antibodies in corn plants—includes the Colleges of Agriculture (entomology, agronomy) and Letters and Science (botany) and the School of Pharmacy; it may produce findings of importance to human medicine, too. Research leans heavily on graduate students.

on milk, for example, is developing new effect pocketbooks of both the dairy farmer are but a few areas drawing the attention ability" of butter at various temperatures.



*Former WAA president who  
headed delegation to  
Europe economic conference  
follows his own formula*

**T**HE ECONOMIC COMMISSION for Europe is an arm or a wing of the United Nations. There are actually three Economic Commissions—one for Europe, one for Latin America, and one for the Far East. The purpose of each Commission is to promote trade among the nations, and in general to raise the living standards in the area which it covers.

The Economic Commission for Europe (the E.C.E.) has a membership of 30 nations. The smallest is Luxemburg, which has a population of about 300,000, and the largest is the Soviet Union, which has more than 200,000,000 people—which is roughly about 35,000,000 more than we have in the United States.

There is bound to be a terrific diversity of interests, re-

## Human Relations:

Mr. Allyn is second from bottom on the left in this picture of economic conference delegates



sources, economic background and degree of development within these countries.

It is not easy to reconcile these differences. What one country may want, another may not want. Different aims are very apt to collide at times, so I would say that any progress that is accomplished is a step in the right direction.

The work of the E.C.E. is carried out by a number of committees and a permanent staff, known as the "secretariat." There is a committee for agriculture, transport, trade, electric power, manpower—and so on.

Once every year, the entire Commission has a meeting, and this is called its "plenary session." (One of my companions says that I am beginning to talk like a diplomat, and although I insist that I am not, I forgive him for sus-

being said at the time it was being said. We went into session on April 5 and wound up on April 21.

Perhaps the most interesting fact about the E.C.E. is that it is the only non-political body where representatives of the east and west get together. And when I say "east," I mean the eastern European nations which are communistic and generally regarded as the Soviet bloc. When I say "west," I mean the free and independent nations of western Europe.

Besides being interesting, the "non-political" aspect is rather important. A session such as I attended serves as a highly valuable "sounding board." There is an old saying that you can learn almost as much about the other fellow by the questions he asks as you can from what he says, and in some degree at least, this applied at Geneva.

# key to peace

by Stanley C. Allyn, '13

pecting me because, after all, "plenary session" is not exactly the kind of language we use in NCR.)

You would not be far wrong if you were to compare a plenary session of the E.C.E. with a meeting of the board of directors of any American business concern.

It is in this plenary session that reports are received from the committees, general progress is reviewed and broad policies are established for the year to come.

Each member nation is represented at this meeting by a delegation which consists of a principal representative and a group of advisers. In every case, except in the case of the United States, the heads of the delegations were men in government service. Some were cabinet ministers in their countries; several were ambassadors. I was the only business man and as such, my position was unique.

But I did have advisers. Besides myself, the American delegation consisted of two principal advisers and six associate advisers. All of them are with the State Department, and each one of them is a specialist in some particular area of international relations. Two of them came to Geneva from Washington, and the others were assigned from various posts in Europe.

The meetings were held in the Palais des Nations (Palace of Nations). This historic and highly impressive building was originally constructed for the now-defunct League of Nations.

The mechanics involved in holding such a meeting are anything but simple, because proceedings were conducted in three "working" languages . . . English, French and Russian.

But modern science is wonderful. Translations were made simultaneously, so everyone could understand what was

Then too, the city of Geneva is famous as an international sounding board all by itself. Switzerland was neutral in both World Wars, and so Geneva was a center of attraction for both sides in both wars.

The first big issue that popped up at Geneva was the question of admitting East Germany as an observer at the sessions. The debate went on and on—and it was highly spirited, but finally, the resolution to give East Germany observer status was voted down.

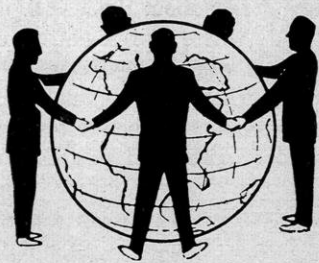
Then the committees began to report—and while this might seem to have been a rather dull affair, it wasn't. Any country represented could comment on each report if it wished, and by this device a number of delegates seized the chance to mention industrial and agricultural development in their own nations. The eastern nations took particular advantage of this opportunity. It was an opportunity for free publicity—or propaganda.

So we heard lengthy orations about increased production in steel, coal, oil, etc., and they were worth listening to. The figures given for the eastern nations—not only Russia but Poland, Rumania, Czechoslovakia and some others—were impressive.

The Soviet delegation was very much on the job; early in the discussions, it contrived to ring in its new slogan. The Soviet delegate quoted Mr. Khrushchev's statement to the Communist Congress of not so long ago, and here is how it went: "To the NATO slogan, 'Let us rearm,' we propose the slogan, 'Let us trade.'"

The Soviet delegate was no exception to his bosses in the Kremlin. As evidence of progress in expanding trade, he said that the Soviet Union is now trading with more than 60 countries. He said that the foreign trade of the





Soviet Union in 1955 was almost double its foreign trade in 1950.

We were told by the Soviet delegate that industrial equipment and technical help are being supplied by Russia to Poland, Hungary, Rumania, Bulgaria, Albania, Yugoslavia and a number of non-European countries. We were told that more than 500 factories are being constructed in these countries with the co-operation of the Soviet.

Everything we were told by the Russian delegate pictured the Soviet Union as a leading exponent of world trade, with an overwhelming ambition to co-operate in expanding world trade in every possible way.

In further support of this position, the Soviet delegation submitted three proposals to the E.C.E. The first envisaged the preparation of an all-European agreement on economic co-operation. The second covered the development of business contacts among the nations of eastern and western Europe, including exchange visits by groups of scientists, technicians, businessmen and others. The third proposed the unification of the efforts of European countries in the peaceful uses of atomic energy.

These proposals provoked a lot of discussion, and in the end the proposal for further development of business contacts was adopted. The other two were referred for consideration at a later date.

The Russians undoubtedly gained a certain amount of credit for leadership by initiating these resolutions. On the other hand, the proposals on economic co-operation and the peaceful use of atomic energy were written in such vague language that never seemed to come to any particular point, and they could not possibly have been adopted in their existing form because, as one might have been tempted to ask: "What did they really mean?"

A most important part of the commission's deliberations

was consideration of the economic report for Europe for 1955. This report was an excellent document of some 200 pages. The professional staff of the E.C.E.—the secretariat—had put it together on the basis of reports from all nations represented on the commission. It was a vast mass of statistics, but it also contained certain conclusions and recommendations of the secretariat.

While I was sitting there, I couldn't help but think about our own economic status as compared to the others I was hearing about, and when the chance came, I was able to get in a few pitches for the United States—and our way of doing business—and our economic and our social principles.

You would not have to read the 200-page report to know that in almost every way you could imagine that we in America are better off than anyone.

For example, *our gross national product*—which means the dollar value of all goods and services produced—climbed to \$387 billion in 1955. At the turn of the year, our economy was operating at an annual rate of just under \$400 billion, which represented an increase of 7½ per cent over 1954.

*Personal consumption expenditures*—the things you and I buy for our own use—were \$252 billion in 1955—an increase of more than 6 per cent. Employment reached a new and all-time high of more than 63 million persons. Industrial production rose by more than 11 per cent.

(Incidentally, did you know that until comparatively recent years that figures like these—which accurately reflect how our country is getting along—were not even compiled! Today, we are all learning that national statistics have a definite bearing on our own well-being—and if you look at them in that light they can be just as interesting as a baseball boxscore.)

*Consumer durable goods* experienced a 25 per cent increase in 1955, largely due to the record-breaking output of



#### ABOUT THE AUTHOR

*A fine sense of human relations in his own outstanding career as president of the National Cash Register company has won considerable recognition for Mr. Allyn. His extra-business interests are many; for two instances, he has served as Alumni Association president and as national Community Chest head. Recently he headed a U.S. delegation to the UNESCO meeting in New Delhi.*

automobiles. More than 1,300,000 new homes were constructed or were under construction.

And look at the *electricity* we're using! Five hundred thirty five billion kilowatts in 1955—an increase of more than 17 per cent over 1954.

And as to *earnings by individuals*—an all-important subject at any time—the weekly earnings of employees in manufacturing industries have increased almost by a third in five years. We are building new schoolrooms at the rate of 67,000 every year, and as I pointed out in my conclusion at Geneva, a record like this—achieved under free competition enforced by law—is evidence that the United States economy has hardly been stagnant. (Those last eight words probably constitute the understatement of the year, but that is the diplomatic way to put it.)

During the meeting, I met all of the chief delegates and many of their advisers in the conference hall and out. There is also a considerable social side to a session of this character, and one delegation or another was entertaining almost every night.

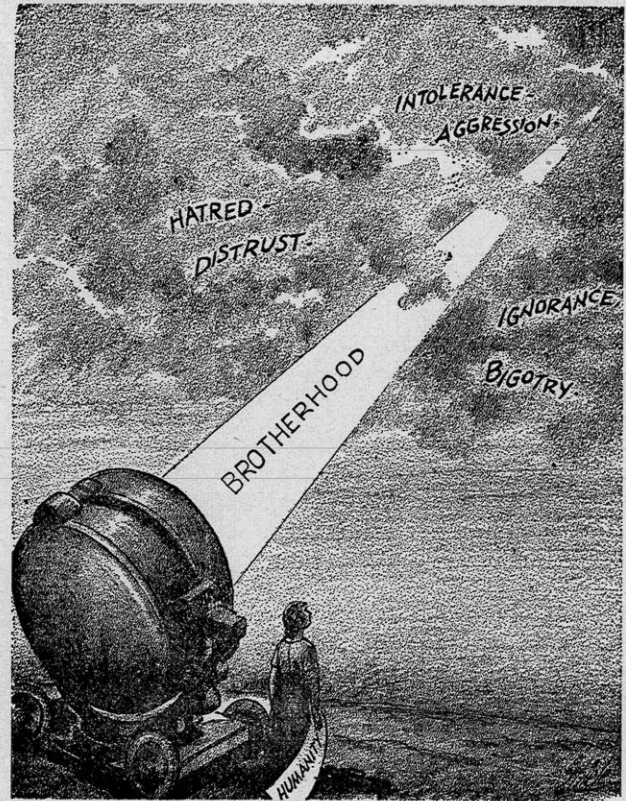
I attended 16 receptions (a chore) and gave one myself on behalf of the U. S. delegation. At first blush, it may seem that the social side is over-emphasized, but it is actually a serious mistake to reach that conclusion.

Sure, these social gatherings are "social," but they provide a wonderful opportunity to meet other delegates and to talk things over on an informal, give-and-take basis. Personal and individual contact seems to work in international dealings such as the E.C.E. session as it does in private business.

No formal report of the E.C.E. session could possibly tell the whole story of what was really accomplished. Perhaps many things—good things—were set in motion even if they were not actually in evidence. No formal report could convey individual reactions and the opportunity to sense the feelings of others and gain some insight into their objectives is something that can hardly be described, but is very much true.

I suppose my curiosity about the Soviet bloc delegates was predominant, and yours would have been, too, because we all know how limited have been the opportunities for Americans and Russians to talk together just as people. This, of course, has hardly been our fault. There isn't one ounce of American ore in that Iron Curtain, you know.

I developed, at the session, a considerable respect for what might be called "the diplomatic type of mind." Professional diplomats have thinking patterns that are quite different from the rest of us, it seems. Among its many other qual-



THE SEARCHING LIGHT

ities, the diplomatic type of mind is able to disassociate personalities from issues. That is not easy—when you stop to think about it.

Could you engage in a rather caustic debate with some one—and then welcome him into your home that evening like a long lost lodge brother? Apparently, the diplomatic type of mind can do just that.

For example, in my own principal statement to the commission, it was necessary to make certain comments of a rather critical nature about some of the policies and practices of the east. This did not seem to have the slightest effect on the cordiality of the eastern representatives in personal contacts. As a matter of fact, I was invited by the respective delegates to visit not only the Soviet Union, but Poland, Czechoslovakia, Yugoslavia and Rumania. (Since, Mr. Allyn has made this trip, spending four weeks in the U.S.S.R. and another week in Rumania and Yugoslavia.)

To me, this meeting—among other things—was a new lesson in human relations and in the necessity of practicing the principle of give and take.

I thought the chairman expressed this thought very well in a comment after a rather heated but by no means acrimonious debate. He said: "The weapons of life are patience, tolerance and good will. I am glad to see them so well represented around this table."

We can all agree, I think, that if everybody in the world would step up his patience, tolerance and good will we would probably see what we want most of all, I guess, and that is peace.

# 30 Billion

# Volts!

It'll be the race of the century . . . but no one will see it, not even with the most powerful of microscopes!

*Stripped of its negative electron charge, the positive proton from a hydrogen atom shoots into a magnet-sheathed accelerating tube that's nearly a third of a mile round.*

*High frequency voltages hurtle the proton faster and faster around the tube, in an almost-perfect vacuum. Soon it is streaking at nearly the speed of light.*

*In two brief seconds the proton travels 350,000 miles, held by a fixed magnetic field on its widening course.*

*Simultaneously, another proton is being accelerated in a similar, adjacent tube.*

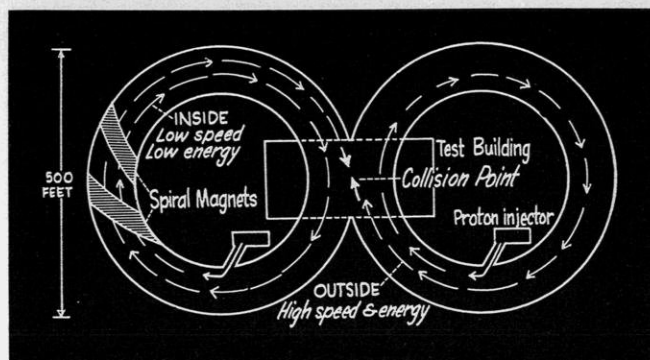
*Now both atomic particles are moving at top speed at the outside edges of their respective race tracks.*

*Quickly, a physicist touches a control.*

*The two particles collide, coming together with fantastic force.*

*The impact is unimaginable! More than 30 billion electron volts of proton energy are developed! Mass converts to energy! Energy converts to mass! And, in all probability, this collision-created energy produces anti-protons, mesons and new particles never before known to science!*

Here's the "race track" →



**T**HIS IS A HIGHLY simplified account of the job which will be done by a great new atom smasher—the world's biggest—now being designed in Madison, Wisconsin, by the Midwestern Universities Research Association.

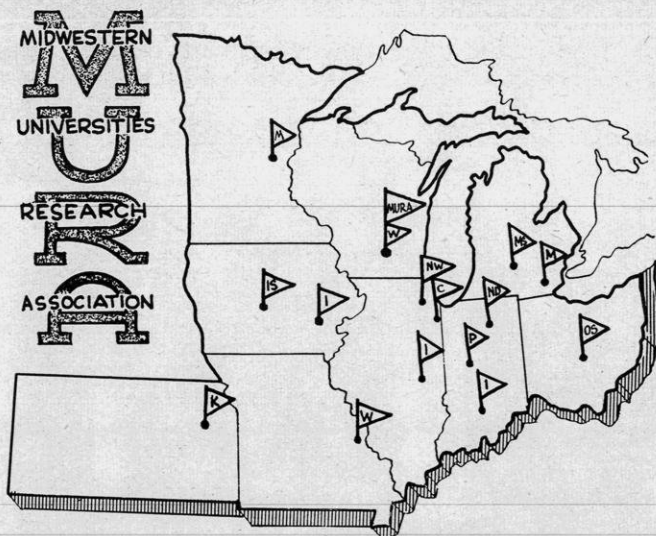
Wisconsin is one of 15 universities involved in this highly-significant project that's aimed at developing the most powerful research tool which nuclear physicists can devise.

Two dozen physicists, mathematicians and engineers are

working full-time on principles and plans for the huge machine under a contract with the Atomic Energy Commission. If the project proceeds on schedule, construction of the atom smasher may get underway by the middle of 1959 and be completed five years later.

Then the physicists will have an unparalleled opportunity of exploring the minute world of the atom. They'll learn more about the tiny particles responsible for the forces which hold an atom together. And they'll assist in determin-

*Research on  
the world's mightiest atom smasher  
challenges midwest physicists*



ing the laws of physics which apply to high-speed, high-energy particles. Newton's laws have to be revised when two particles enter an area and three or four come out!

The scientists planning the atom smasher have their hands full. They're now building and testing pilot models which will help determine the most efficient type of magnets; the best means of producing a vacuum in a tube 500 feet in diameter; construction methods that will permit only 20-thousandths of an inch variance in that same 500 feet, and a practical means of cooling the hard-working accelerator, which will generate as much heat as 10,000 electric stoves.

Assisting the 24 scientists in the MURA research headquarters, a former automobile dealer's garage, are a dozen secretaries and administrators and 16 technical people who

perform a variety of tasks vital to the undertaking. They draft plans. They construct machine parts. They maintain delicate electronic equipment. They operate a complicated IBM type 704 electronic computer.

That 704 computer is a modern marvel in itself. It is being rented for about \$25,000 a month . . . but it resolves in hours what lesser computing systems might take days, months or years to unravel.

About thirty-five students find part-time employment at MURA headquarters.

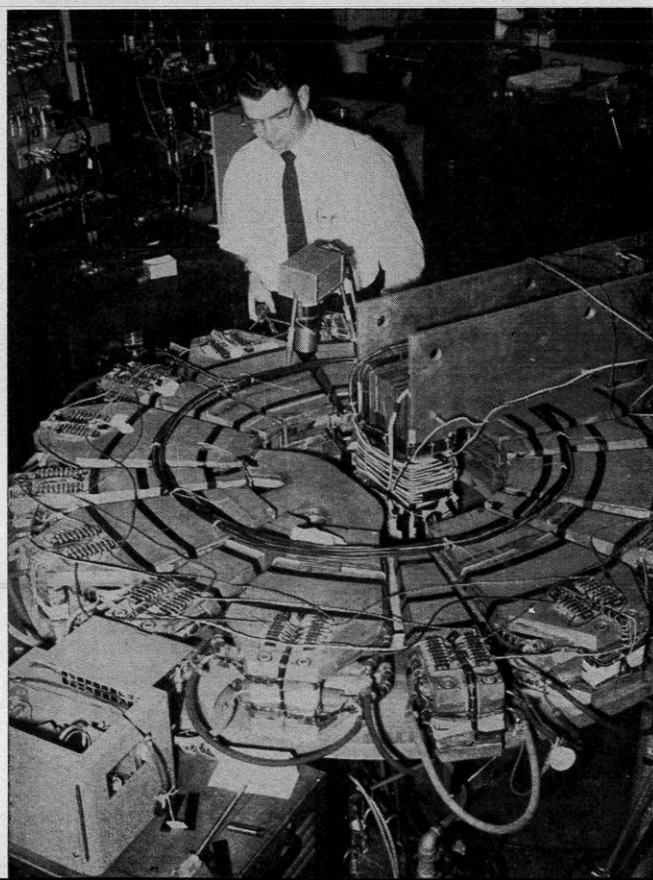
Although development of a project as vast and intricate as this must necessarily be based on individual and organization teamwork, credit for conceiving the basic principle that puts the MURA machine ahead of existing atom smashers goes to Prof. Keith Symon, now a member of the University of Wisconsin faculty. Improvements making his design more practical have been, and are now being, worked out by scientists from the MURA institutions.

Among them is Illinois Prof. D. W. Kerst, a 1934 graduate of Wisconsin and inventor of the widely-used betatron atom smasher. Prof. Kerst is now technical director of the machine-design group in Madison.

The principle underlying the new accelerator is expressed in the four words which the scientists use to describe their machine: *fixed field alternating gradient*.

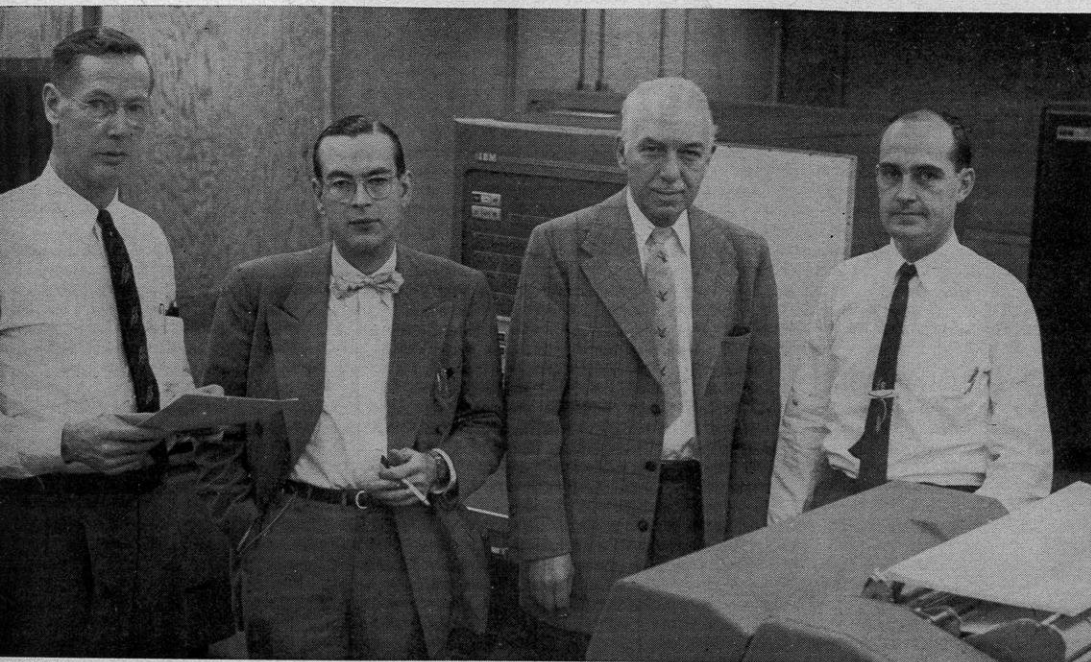
While other high energy accelerators have depended upon a varying magnetic field, which gives rise to many problems

Models of atom smasher help test theories



**By George Richard**

*Editor, Wisconsin Alumnus*



Among key men in MURA planning group are W. D. Kerst, technical director; James N. Snyder, head of the computer section; Gerald P. Kruger, director of the laboratory, and Keith Symon, head of the theoretical section. They are shown in the IBM computer room.

of synchronization, the MURA machine will hold its accelerating particles on course by means of a fixed magnetic field.

In practical operation the FFAG accelerator will speed up a number of protons, holding the slower ones on the inside of the track while the faster-moving particles move around the outside. Scientists may thus store a number of particles moving at various speeds—then fire them out together in a long stream or in one big burst.

Although the energy per proton will be very high—five times higher than that being produced by accelerators now in use—the total energy of all protons in the machine will be low because of their small number. This, of course, keeps the operation within manageable proportions.

Even so, it's not a simple trick to track and identify the atomic particles that are formed from high-energy collisions. Here again special tools are employed, including photographic emulsions, cloud chambers and bubble chambers. The bubble chamber contains superheated liquid, the cloud chamber supercooled vapor. As a particle shoots through either, it produces measurable effects.

After the scientists measure these effects, what have they got?

Like all scholars engaged in fundamental research, the nuclear physicists make no specific predictions concerning the ultimate value of this work. But similar research helped produce our present age of atomic energy, and it is effort such as this upon which progress depends.

Long before the project's completion, however, MURA scientists have demonstrated results from their intensive efforts. By the end of 1956 more than 150 technical reports

on MURA progress had been distributed to interested scientific people all over the world. Much of the information in them is immediately useful to workers in related fields.

The Midwestern Universities Research Association was incorporated in 1954, after individual scientists from several institutions informally began to discuss the need for joint research facilities. Obviously, a high-energy accelerator is too expensive, considering both finances and personnel, for one institution to tackle. Early financial support for MURA's initial study group came from the National Science Foundation, the Office of Naval Research and from the universities concerned. At Wisconsin, the Wisconsin Alumni Research Foundation financed the University's participation.

Currently MURA is spending around \$110,000 a month in the planning phase of its project. Present estimates place the final cost of constructing the complex machine at seventy-five million to one-hundred-twenty-five million dollars.

Where will the FFAG atom smasher be built? The location hadn't been set by mid-January. University scientists would prefer to locate the machine close by a university. Under consideration are sites near Purdue, Minnesota and Wisconsin. Another possible location is the Argonne National Laboratory in Illinois.

The pioneering scientists who are pushing toward completion of the accelerator are confident that this and other questions soon will, and must, be answered. For, as they put it in an official report:

"High energy physics is, and surely will continue to be for a long time to come, the major land of the unknown. . ."

# Governor Presents His Budget

## *Indicates Sympathetic Understanding of University's Problems*

IT IS APPARENT, said Governor Vernon Thomson, that Wisconsin's higher education salaries must go up.

But, the state's chief executive said in his budget message on January 30, "Basic economic considerations place severe limits on the additional funds which can be devoted to this purpose."

Then Gov. Thomson went on to offer a proposal including merit and adjustment salary increases of \$3.9 million for University faculty members over the next biennium.

This last figure compares with \$6.5 million requested by the Coordinating Committee on Higher Education for the same purpose; however, even the reduced figure could represent the reversal of what had been a deteriorating faculty salary trend.

The Governor recalled that the CCHE request included provision for restoring Wisconsin's salary range to its traditional position in comparison with competing institutions. He pointed out that his proposal contained a "small provision for the regaining of ground previously lost" in this respect, and matches salary increases currently being sought in other states, as well.

Under the Governor's program, faculty salaries would be increased to about these averages during the biennium: professor, \$10,000; associate professor, \$7,500; assistant professor, \$6,000; instructor, \$5,000, and graduate assistant, \$3,650. Merit increases averaging 2.7 per cent would also be provided for.

Similarly, salary increases—also proportionately less than those requested by the CCHE—were recommended for Wisconsin's state colleges by the Governor.

Altogether the Governor's executive budget suggested biennial appropriations from state funds of \$57,056,854 for higher education, exclusive of the University of Wisconsin hospitals. (Customarily the hospitals are included in

the University for budgetary purposes; this added nearly \$4½ million to the Governor's published figures.)

This scaled down the combined University-State College request from a CCHE-approved total of \$61,926,458.

This figure had included a proposed \$45,887,009, for the University; the Governor's figures pegged the University's tax fund income at \$42,304,074.

While much of this adjustment occurred in salaries, there were other areas in which the executive recommendations were less than the University's: physical plant maintenance, research, libraries, administration, improved instructional programs, and others. The University requests in these fields were for increases amounting to \$5,641,683. The Governor suggested increases of \$4,836,946 distributed through the areas.

### "Fringe Benefits"

In his budget message, Governor Thomson also declared his support of a proposal to supplement existing retirement programs for teachers at all levels. This plan, proposed by a Retirement Study Committee, would considerably increase the attractiveness of the teaching profession and would put the University in a stronger competitive position in relation to extensive retirement programs.

### New Programs

Governor Thomson recommended that several new programs within the University be instituted: expansion of a soil survey, more research on Dutch Elm disease, and a study of the state's taconite ore resources, for example. New courses in such fields as psychiatry and nuclear physics would be expanded.

### Building Funds

One of the most serious discrepancies between University and Coordinat-

ing Committee requests and the Governor's suggestions occurred not in the "higher education" section of the executive budget at all.

In recommending an appropriation of \$12,850,000 for the state's Construction Fund, Gov. Thomson declared: "It is my intention that it cover all state construction, except such clearly self-financing programs as college dormitories."

The January *Alumnus*, however, told how the Coordinating Committee for Higher Education had recommended a University-State College biennial building program of \$44,988,000. Over \$27 million of this would be for University buildings at Madison and Milwaukee. Proposed Milwaukee buildings alone would cost about five million dollars over the next two years. None of this building could be termed "self-financing."

Other state agencies, moreover, have requested millions of dollars in building appropriations.

Yet there was one development on building which holds possible promise. In his first message to the Legislature, Gov. Thomson had suggested a potential source of higher education building funds: the pledging of a certain amount of student fees toward amortization of buildings. He proposed that the practicality and constitutionality of this plan be closely studied. (Wisconsin's constitution prohibits a state debt of more than \$100,000.)

### Funds from Other Sources

Plus state tax money from the executive budget fund, the University in 1957-59 will probably receive nearly \$44 million from other sources. Anticipated revenue from federal funds, gifts, grants and operational receipts and other miscellaneous sources has been set at \$43,734,046.

About 800 new graduates sallied forth from the University of Wisconsin this month after final examinations and an impressive Mid Year Convocation which featured an address by Professor William Sarles, bacteriology department chairman, another by Regent Wilbur Renk, the charge to the class by Pres. Fred and a response by Charles R. Thomas.

\*

Rededication of the famous sifting and winnowing plaque was scheduled for February 15, and afforded an opportunity for students, faculty and Wisconsin citizens to testify anew their devotion to the principle of freedom of thought.

\*

The University's heating station is increasingly taxed as more buildings are added to the campus. During a cold snap last month, it was operating at near top capacity and on one day its 12 boilers—installed in 1924 when there were 46 million fewer cubic feet of buildings—set a new all-time record in their demands for heat. The furnaces burned 275 tons of coal that day. (A new heating plant is high on the list of building priority.)

## Compendium

More than \$62,000 in gifts from 1,814 donors attest to the success of the Second Annual Alumni Fund of the University of Wisconsin Foundation, according to a preliminary report. "Extremely gratifying," was how the Foundation's executive director, Robert Rennebohm, described the result, "especially considering that our shift from school-year to calendar-year basis limited the drive to only four months." During a year-long campaign in 1955-56, the First Annual Alumni Fund brought \$70,625 from 1,945 contributors. All contributions this year will be credited to the 1957 fund.

\*

Job placement officers on the Wisconsin campus say that the demand for graduates this year is up as much as a third over even the record demand of a year ago. Interviewers are visiting the campus seeking graduates in many different business, industrial, engineering, scientific, educational and social fields.

The coordinator of placement services, Emily Chervenik, says the increased demand reflects 1. the needs of an expanded economy; 2. the increased need for more highly trained workers, and 3. the decreased supply of graduates two decades after the low-birth-rate depression year. Starting pay runs six per cent higher this year, she avers.

### Demand

### For Graduates

### Continues High

A Ford Foundation grant of \$100,000 to the University will support a five-year study in the history of American philanthropy. The program will be under the direction of Merle Curti, Frederick Jackson Turner professor of American history and specialist in intellectual history. Prof. Curti's "The Growth of American Thought" won the Pulitzer Prize in 1943.

\*

After a lengthy discussion, the Regents in January voted to apply for additional federal loans to finance dormitories for 1,100 students and apartments for 100 married student families. Regent C. O. Wanvig, Milwaukee industrialist, opposed "going to the government" for money, terming it "insidious creeping toward socialized education, medicine and government." He added, however, that he would vote for it because it seems to be the "expedient thing." His position found support from Regent Carl E. Steiger, Oshkosh manufacturer; the latter noted, however, that the housing money is being sought as a loan and would be repaid. He and other Regents pointed out that private financing of the dormitory construction had been sought in recent years, but with no success.

\*

More exchanges with India education: Frances Zuill, associate dean of home economics, will be on a leave of absence to help develop home science courses at eight women's colleges in India. And last month, the School of Education welcomed thirty Indian schoolmen who are spending some time on the Wisconsin campus during the course of a tour which will include study of U. S. education facilities.

\*

Another in a series of transfers involving "Dunmuven," the historic Thomas E. Brittingham home in Madison, last month brought to the University the furnishings and equipment of that home in the Highlands.

\*

Among several new procedures aimed at streamlining their meetings, the Regents included a change enabling the president or his representative to accept gifts, grants and bequests to the University which are of types and for purposes similar to those previously accepted by the Regents.

\*

A \$12,000 gift has set up scholarships in the UW Law School honoring the late Justice James C. Kerwin, one of the state's most distinguished jurists and a former Regent.

\*

Wisconsin research nutritionists have concluded that American diets apparently furnish enough of the basic protein units lysine and methionine, and there is probably no point in adding amino acids, which are protein units, to human foods. May S. Reynolds, C. A. Baumann, Evelyn Jones and Dorothy Steel determined the basic daily requirements for women; other researchers did the same for men.

## TOO MUCH POWER?

Student Life and Interests Committee (SLIC) was criticized by biochemistry Professor Karl P. Link, faculty adviser to the now defunct campus chapter of Labor Youth League (LYL). Prof. Link leveled accusations against SLIC in a *Daily Cardinal* interview shortly after making a report on his ten years as adviser to LYL and its predecessor, the John Cookson Marxist Discussion club.

Prof. Link complained that SLIC occupies a position of being "police department, prosecuting attorney, judge, jury, and prison warden" to organizations violating its rules.

Dean Theodore Zillman, SLIC chairman, replied: "The faculty has traditionally conducted its business through faculty committees responsible to it." Editorially, the *Daily Cardinal* questioned this explanation and suggested "it may be time for a change".

The SLIC-power debate was precipitated by the committee's actions on LYL last spring and by current controversy over a SLIC ruling that would require student groups to submit membership lists on request.

## CAMPUS COMBUSTION

Fire caused extensive damage to the west wing of Agriculture Hall last month in the biggest blaze to hit campus in several years. Authorities said the fire was apparently caused by sparks from a plumber's torch in the basement fan room. About 275 persons who were in the building at the time exited safely into zero-degree weather. No full damage estimate was given but first and second floor areas over the fan room were said to be badly affected and loss due to smoke and water was reported.

Flames also threatened the razed ruins of Chadbourne Hall which had stood nearly 80 years without accident. A small fire, kindled in a fireplace by chilly workmen, got out of hand and firemen were summoned. The blaze was quickly extinguished while a disappointed on-looker moaned: "Aww, let it burn!"

## DOLLAR DYNAMO

David Falk, '57, from Hampton Va., is indeed an unusual student. Four years ago he launched his college career with a \$5,000 contribution from his father that was to cover all expenses while studying for his degree in dairy husbandry. Dave put his money and mind to work, buying a near-campus rooming house, working a deal on some land, purchasing another house, and then trading the first one for another. Meanwhile, he studied, took part in student activities, and married Arlene Plotkin, '57, of Milwaukee. Now, with graduation day near, he's liquidating his holdings and adding up the score: a neat \$30,000! One thing blights Dave's college record—he got a D in a course in real estate!

## LEGAL MATTER

The UW Committee on Student Conduct and Appeals applauded the fine work of Student Court, judicial branch of student government which tries student cases of traffic violations and similar infringements. Of eight appeals heard by the committee Student Court decisions were upheld in seven cases, modified in only one.

*Wisconsin Alumnus, February, 1957*

Joan Ackley, '57 writes:

## Campus Chronicle

### UNION RATES

Memorial Union, "the living room of the campus" seems to be doing a mighty fine job, according to a survey taken last year by Prof. Burton Fisher's class in public opinion research. Out to gauge student attitudes toward the Union, pollsters found 91 per cent of the sampling rated service to the student body in general good or adequate. About 70 per cent registered approval for the Union's service to them.

The survey, which is now in constant use by Union committee chairmen and staff members, found lounges and the famous Rathskeller most popular. Plays by traveling professional companies and major concert events were deemed most important to the schedule. Who uses the Union most? The co-eds—independents first and sorority women second—an interesting discovery since the Union started in 1928 as a men's club!

### A ROSE IS A ROSE IS A ROSE . . .

Hazel McGrath, '47, of the University's news service last month disclosed the findings of a special "research team" who perused the pages of the new student directory—which, as usual, came around Christmas, just in time to be almost obsolete.

It may seem to the casual observer, *she wrote*, that only four students are living the life of Riley: Caroline and Clare, Donovan and Shawn.

Let the facts speak for themselves. The research team turned up a Funmaker, a Smiler, a Gayhart, and a Merry; a Prom, five Balls, a Dance, and two Walzes; three Darlings, two Peeks, a Smirk, and an Ogle; a Blatz and a Pritzl, a Martini, five Gibsons, Champagne and a Guinness, a Bliss and a Blish, a Ho, four Hoys, a Hoops, and a Hollar.

They also found a Roob, six Hicks, and a Dude; a Thrower and two Ketchums; a Richmond and a Purman; two Heads, two Chings, a Lipp, six Fotes, and a Hand; a Spring, five Sommers, a Fahl, and 12 Winters; an Easterday and a Noel; five Days, two Weeks, a Muntz, and a Yahr.

Also a Penny who is Wise and a Pound who is Arthur; a Ruble, a Francke, eight Marks, three Nickels, and a Shilling; two Dows and some Joneses; a Battin, three Bartons, a Derr, some Steins, and an Osborn; a Merrill, a Lynch, a Pierce and a Fenner, but no Bean.

Lastly, after collating their findings, the researchers tailored a 19th century verse to fit a contemporary senior from Kingsport, Tennessee:

"We read Wisconsin's blazoned roll  
Of Heroes, and forthwith  
Greets up upon the starry scroll  
That homeliest name—John Smith."



# Wisconsin Women

... with Grace Chatterton

**L**OOK WHAT'S HAPPENED To The Old Astor Theater," a feature article appearing recently in the *Milwaukee Journal*, is an intriguing story about the new home of two Wisconsin alumni. Roa Kraft Birch, '23, and husband Frank V., '18, should be awarded a prize for originality and imagination in converting this famous old building into a delightful and convenient spot to live and work.

After leveling off the sloping theater floor and the fitting of a second story below the high ceiling, the building now houses a thriving business on the first floor and two handsome apartments upstairs. Frank and Roa live in the larger apartment—which is, incidentally, about four times as large as the average small house. There are seven rooms, three baths, a large storage room, a utility room and a 16 x 45 ft. sun deck. One of Roa's favorite colors is turquoise, so she has combined this with gold, beige and brown in decorating the spacious rooms. A business assistant lives in the smaller five room apartment and she and Roa have only to walk downstairs to be at work.

Roa conducts a successful business in the rental and sale of educational, religious and entertainment motion pictures, film strips and slides. Frank, an advertising executive and active in University affairs, finds the location extra convenient because he is within walking distance of his downtown offices.

When they want to get away from it all, Roa and Frank take off for Florida where they have another home waiting for them.

\*

Our faces are extremely red! Last month's Wisconsin Women relayed some information about the State's gracious first lady, Mrs. Vernon Thomson . . . and undoubtedly caused considerable confusion to her classmates of the Class of 1932 by misspelling her maiden name. To set the record straight: before she became Mrs. Thomson, she was Helen DAVIS.

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## CHADBOURNE HALL MEMENTOES

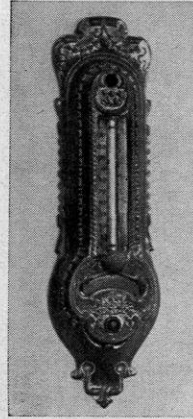
Shortly before old Chad was turned over to the wrecking crews Pres. E. B. Fred requested Alice Martens Young, '24, (Mrs. Edward), Margaret Callsen Russell, '24, (Mrs. Eldon) and me to undertake a special job.

"Would we," he asked, "go through the building and suggest things which should be saved and used in the new dormitory?"

"Also," he added, "you may find some mementoes which former residents would like to have and cherish."

What an enticing assignment for three women. Hours and many nostalgic reminiscences later we turned in our report.

As a result of the President's interest, enough wood was salvaged from the old building to panel the new dormitory library. Several spindles, part of the porch balustrade, are to be used as lamp bases in the same room and the stone trim around the entrance doors will be from the original building. So a definite part of old Chadbourne will be incorporated in the new residence for women.



Do you remember the quaint old thermometer—thermostats in every bath, and in some of the rooms? And the iron grills, approximately 6 x 12 inches, covering the heating ducts? They have been saved, too. If any former Chadbourne Hall residents would like one of these antiques, call the office of Lee Burns, Assistant Director of Residence Halls, Slichter Hall, University of Wisconsin. You may have one merely for the asking. Persons living outside the city may also have one by paying a nominal packaging charge, plus postage. But there aren't too many of these mementoes and it's "first come, first served."

## RING OF EXCELLENCE

Louise Lockwood Carpenter, professor of music at Wisconsin from 1923 to 1955, has been honored by Sigma Alpha Iota, National Music Fraternity for Women. She was presented with the Ring of Excellence, the highest award which may be conferred by this organization, for her talents and contributions to the musical life of the University and the community.

Mrs. Carpenter, a graduate of Yale University, received many prizes in performance and composition while a student there. Two scholarships to study at the American Conservatory at Fontainebleau, France, gave her additional opportunity to study with a number of the world's great artists. She is a former pupil of Isidor Phillippe, Nadia Boulanger, Vincent D'Indy, and Leonid Kreutzer.

The many young people who have had an opportunity to study piano and courses in symphonic and chamber music with her while at Wisconsin will be delighted to learn of this new honor given Mrs. Carpenter. The many persons who have thrilled to her unusually beautiful interpretations, particularly when playing with the Pro Arte Quartet, know how lucky they are to have Louise Carpenter in the campus community.

## A DREAM JOB FOR SOMEONE

The University of Wisconsin Division of Residence Halls is looking for an assistant Head Resident in Elizabeth Waters Hall. Assistant Head Residents are members of the academic staff and the major portion of their time is devoted to counseling and advising girls. They also assist in planning social programs.

Applicants should have experience in group living, camp counseling or teaching young people and be preferably between 35 and 50 years of age. Starting cash salary is \$3,600 plus meals and attractive living accommodations. Write to me if you want to learn more about the position.



## By Wayne Rogers, '57

There have been some changes in Badger coaching staffs in recent weeks.

George Lanphear, freshman coach for the past decade, was named director of athletic public relations, taking over the post vacated last year by Art Lentz and handled since by Jim Mott. Then Tom (Red) Hearden resigned as assistant football coach to return to his hometown and "more money and security" as an assistant on the coaching staff of the Green Bay Packers.

One coach, Perry Moss, has been added to Wisconsin's football staff as a replacement. Moss quarterbacked Illinois to a Big 10 championship in 1946 and led them to a 45-14 victory over U C L A in the first of the modern Rose Bowls between a Big 10 and a Pacific Coast leader. The 30-year-old native of Tulsa, Oklahoma, will replace Hearden as assistant to Coach Milt Bruhn.

Mott, who was Lentz's assistant, and Acting Sports News Service Director since August 1, 1956, when Art Lentz joined the U. S. Olympic Committee, will continue as Lanphear's assistant on a part time basis. He is currently completing work on a Master's Degree in the University of Wisconsin's Journalism School.

While at Wisconsin, Lanphear won letters in football, basketball and baseball. He coached basketball at Ripon College in 1939 and 1940, and from 1941 to 1947, taking a year off in 1940 to earn his master's degree at Wisconsin.

\* \* \*

Meanwhile, the Badger teams have continued in unimpressive fashion, so far as victory is concerned.

The hardwood quintet lost six straight Big 10 games in as many first-semester

*Wisconsin Alumnus, February, 1957*

contests. Perhaps the best game was played against an improved and highly-touted Ohio State team on January 21. Led by Bob Litzow's record 13 field goals, the Badgers led the conference leaders about three-quarters of the game but wound up three points behind, 67-64.

The Wisconsin gymnastics team, headed by trampoline and tumbling star Captain Lee Geraldson, lost its opener to Michigan, 74-38, but went on to trim Northwestern 70½-41½ and beat the University of Chicago 74-38.

The fencing team, on the other hand, romped over Iowa, 19-8, and Indiana, 20-7, on January 12, and defeated the Shorewood Fencing Club, 16-11, the following week.

Iowa defeated the Wisconsin swimming team 56-49, but the Badgers showed creditable strength in several events. Sophomore Fred Westphal was a close second behind Iowa's Garry Morris



George Lanphear

as Morris set two meet and pool records in the 60 and 100-yard freestyle with times of 27.7 and 50.8 respectively.

\* \* \*

Coach John Walsh is scratching his head in perplexity because of the sudden disappearance of boxing talent after last year. None of his 1956 NCAA championship team is on hand for the 1957 season. Orville Pitts, the 178 pound champ, has been in school but recently announced he was turning professional. Other than he, none of the '56 squad is on campus.

Graduation took only three: last year's captain, Everett Chambers; the NCAA heavyweight champion, Truman Sturdevant; and NCAA runner-up in the 132 pound class, Joji Tomei. Captain-elect Jim Schneider left school because of ineligibility, and NCAA champions Dean Plemmons, 112 pounds, Dick Bartman, 139 pounds, and Vince Ferguson, 156 pounds, either withdrew from school or transferred.

\* \* \*

Baseball coach, "Dynie" Mansfield, has a new experience lined up for his diamond crew this spring. From April 18 to 24 the team will go through its spring training in sunny Arizona (at Phoenix and Tucson) against Arizona State College in four games and the University of Arizona in two games. This is the first time in the history of Wisconsin baseball that a team is going to the West for its spring drills.

Coach Mansfield says the Badgers have fine prospects this year.

## BULLETIN BOARD

### FOUNDERS DAY MEETINGS

#### CINCINNATI

February 23 Ray Dvorak, Dir., U. W. Bands  
*Contact:* Frederic A. Beyer, Pacific Mutual Life Insurance Co., Federal Reserve Bank Bldg., 4th and Race Streets

#### NEW YORK

February 27 Art Lentz, Olympic Committee, and Herbert Prochnow, V-P, 1st Nat. Bank, Chicago  
Columbia University Club, 4 W. 43d St., 6:00 p.m.  
*Contact:* William B. Osgood, 70 E. 45th St., Room 2712  
Phone: LE. 2-4732

#### ROCK ISLAND

February 5 George Lanphear, Athletic Dept.  
*Contact:* Albert Sands, 264 Federal Bldg., Rock Island

#### ATLANTA

February 15 John Berge, WAA Executive Dir.  
*Contact:* Stanley G. Joslin, 1676 Houston Mill Rd., N. E.

#### OKLAHOMA CITY

*Contact:* E. D. Dahlgren, 715 N. W. 49th St.

#### SAN ANTONIO

February 15 Prof. Howard Becker, Sociology & Anthropology  
*Contact:* N. A. Saigh, 531 Majestic Bldg., CA. 5-2933

#### DALLAS

*Contact:* John Anderson, 1120-3 Lanewood Circle (18)

#### MEMPHIS

February 14 John Berge, WAA Executive Dir.  
*Contact:* Mrs. Edward I. Crawford, 4471 Normandy Rd.

#### SOUTHERN CALIFORNIA and SAN FERNANDO VALLEY

February 20 Robert Rennebohm, Exec. Dir., UW Foundation  
Statler Hotel, Los Angeles, 7:00 p.m.  
*Contact:* Harold M. Derus, 1700 S. Vega St., Alhambra  
Phone: AT. 1-7270

#### SAN DIEGO

February 22 Robert Rennebohm, Exec. Dir., UW Foundation  
*Contact:* Dr. John Wanless, 2001 Fourth Ave. (BE2-2171)

#### WAUKEGAN

February 19 Prof. O. S. Orth, Medical School

#### BELOIT

February 28 Prof. William Stokes, Political Science  
*Contact:* Jack Brusberg, 618 Fourth St., Emerson 2-3826, or Lowell Zimmer, 1513 Lincoln Ave.

#### BERLIN

March 14 John Ritchie, Dean, Law School  
*Contact:* Ralph Peterson 140-A W. Huron St., #770

#### DOOR COUNTY

February 19 Prof. Edmund Zawacki, Slavic Languages  
*Contact:* John D. Thenell, 819 Hickory St., Sturgeon Bay or William Berg, Bassett's Drug Co., Sturgeon Bay

#### KENOSHA

February 25 Prof. Farrington Daniels, Chmn., Chemistry  
*Contact:* William Kupfer, 2218-63rd St., Olympic 2-0630

#### RACINE

February 22 J. Martin Klotsche, UW-M Provost  
*Contact:* Rex Capwell, 305 So. Vincennes Circle, Melrose 3-8925

#### TOMAH

March 4 Prof. Edmund Zawacki, Slavic Languages  
*Contact:* Katherine McCaul, #1

#### WAUKESHA

February 5 Glenn R. Davis, formerly U.S. Congressman  
*Contact:* Keith Frey, 404 Oxford Rd., or James Kramer, 643 N. Hine Ave.

#### OSHKOSH

February 25 Prof. William S. Stokes, Pol. Sci.  
*Contact:* Clifford Bunks, Blackhawk 8300

#### GOGEBIC RANGE

February 21 George Lanphear, William Aspinwall  
Wisconsin Athletic Department  
*Contact:* Armand Cirilli, Hurley (2509W)

#### JANESVILLE

March 25 Dean Lindley J. Stiles, Education  
*Contact:* Mrs. W. T. Kumlien, 1701 Milwaukee Ave. (2-2419)

#### MERRILL

March 4 Roy Luberg, Governor's Exec. Secy.  
*Contact:* Ralph Voigt, 1019 E. Main St.

#### MARINETTE

March 12 Prof. John Guy Fowlkes, Education  
*Contact:* W. T. Rohrberg, Ansul Chemical Co.

#### MILWAUKEE

February 7 Vernon W. Thomson, Governor

#### RHINELANDER

February 27 Prof. Edmund Zawacki, Slavic Languages  
*Contact:* Dale Minnick, 116 W. Pearl St.

#### COLUMBUS, O.

February 16 Dean L. M. Parks, Ohio State U.

#### MINNEAPOLIS

February 13 Mr. and Mrs. John Mathys

ACTION SHOT OF A  
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AGENT



## Big moment for "Buck" Hubbard and Eriez as insured pension plan is launched

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Martin B. Lehman, CLU, '35, Kansas City  
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# Alumni

## 1900-1910

Dr. Olaf Morgan NORLIE, '01, received an honorary Doctor of Science degree from Hartwick College, Oneonta, N. Y. He was the college's first dean and has devoted his life not only to teaching but to library and pastoral work and book editing.

## 1910-1920

National Cash Register Co. president Stanley C. ALLYN, '13, was appointed United States representative at a conference of UNESCO at New Delhi, India. The native Madisonian was president of the Alumni Association in 1949.

K. K. CHEN, '20, a member of the U. S. National Committee for the International

## A ROARING REUNION

1917 . . . . SPORTY FORTY . . . . 1917  
June 20-22

Ever since last year's reunion, Kate Huber, chairman of '17's "Sporty Forty" reunion, and her planning committee have been working toward this year's big one! A letter has already gone out to class members . . . and if you haven't got one, let Kate know. Her address is 3419 N. Pennsylvania, Apt. D-1, Indianapolis, Indiana.

The Class of 1917 is the only Wisconsin class that reunies every year . . . and every five years, we *really* reunie! Plan to be with us in June!

# Weddings . . .

## 1948

Ardeh Mae Criss and Roger Joseph DREW, New York City.

## 1949

Geraldine Conrad Keene and Lowell SCHIPPER, Manhattan, Kan.

Polly Gowran Evans and Robert H. OPPENHEIM, Milwaukee.

## 1950

Lois Mae Watts and Leonard William MELLEN, Madison.

Norma Alice SHAMPO, '56, and Dr. Lloyd Charles DeMARAIS, Madison.

Joan Mae MAECHTLE, '52, and Saunders John KOHN, Milwaukee.

Elizabeth T. BERRY and Earle A. Austin, Portage.

## 1951

Gay Lynn Belinske and Kenneth L. PAGEL, Manitowoc.

Shirley Mae AUDENBY and Ronald Furze, Rockford, Ill.

Rosemary NOVY, '52, and Frederick E. STOFFEL, Niles, Mich.

Charlotte Jean Dressel and Robert G. CHRISTENSEN, Milwaukee.

Union of Physiological Sciences, was appointed by the State Department as one of the five official delegates to the First General Assembly at Brussels, Belgium, in connection with the committee's International Physiological Congress. Dr. Chen is director of pharmacology research at Eli Lilly and Co., Indianapolis, Ind.

## 1920-1935

Dr. J. A. HALL, '21, director of the U. S. Forest Products Laboratory, Madison, is a member of a group to advise the President's bipartisan commission on increased industrial use of agricultural products.

UW Graduate School Dean Conrad A. ELVEHJEM, '23, received the 1956 Charles F. Spencer award and medallion from the Spencer Chemical Co., Kansas City, Mo., for his meritorious contribution to agricultural and food chemistry.

Joseph J. LONGFIELD, '24, former Madisonian, is mayor of Hanford, Cal.

Arnold G. BUR, '26, vice-president in charge of sales, Wisconsin Public Service Corp., Green Bay, is vice-chairman of the Residential Gas Section of the American Gas Association.

A new member of the Council of the American Institute of Accountants is Donald E. GILL, CPA, principal in the firm of his own name in Madison.

Ralph E. BOECK, '27, professor of civil engineering at Marquette University, is the first recipient of the American Society of Civil Engineers' Ernest E. Howard award.

Lore Hofmann and Marvin M. WICK, Cincinnati, Ohio.

Patricia Ann TIMMERICK and Herbert Cecil Davis, Chicago.

## 1952

Elaine Hoxsey and Thomas D. McGREGOR, Milwaukee.

Virginia Ray Bilderback and Robert Joseph SCHUMERTH, Midland, Texas.

Berta Kocher and James Brien LARKIN, Palo Alto, Calif.

## 1953

Geraldine Ann BEGGS and Ernest O. Hovland, Madison.

Jean Rose Belinske and Carl E. KRIPPENDORF, Milwaukee.

Marilyn Stammer and James McCormick, Neenah.

Alice Maia STEVENS, '56, and Frederic Carl HECKER, Indianapolis, Ind.

Shirlee Marie Snell and James Nelson BAILEY, Madison.

Mary Lou GOLLON, '59, and 1st Lt. Victor William MASLAKOW, Ft. Ritchie, Md.

Mrs. Ruth Friend Steele and Jules F. BROWN, Lancaster.

## 1954

Barbara Ellen Balza and Bernard HUEBNER, Green Bay.

Sandra Gaye Jensen and William Matthew BECKER, Kenosha.

# THE MIGHTY BIG TEN

VERSUS

# THE IVY LEAGUE!

The Big Ten Colleges were called "educational rabbit warrens"—among other things—in Holiday's famous article, *The Natural Superiority of the Ivy League*. Now, in March Holiday magazine, the brickbats are returned with interest as Paul Engle, of Iowa University, says, "The Ivy League has had the past; the Big Ten will have the future."

Has Radcliffe "absorbed" Harvard? Will coeducation "save" Yale? Is eastern education "snobbish and outdated"? Is Columbia a "Sorbonne-on-the-subway," and Cornell a "salt lick in the wilderness"? Is the Big Ten the "massive wall to which that gracious Ivy clings"?

As for the Big Ten—does it *really* produce more top-grade music, art and poetry than all other colleges put together? Is physics *really* stressed as much as advanced ballroom dancing? Is coeducation *really* an advantage—or do drum majorettes command more attention than assistant professors? And just how big *is* Big Ten football, anyway? Holiday has the answers in a vivid portrait illustrated with 15 colorful photographs!

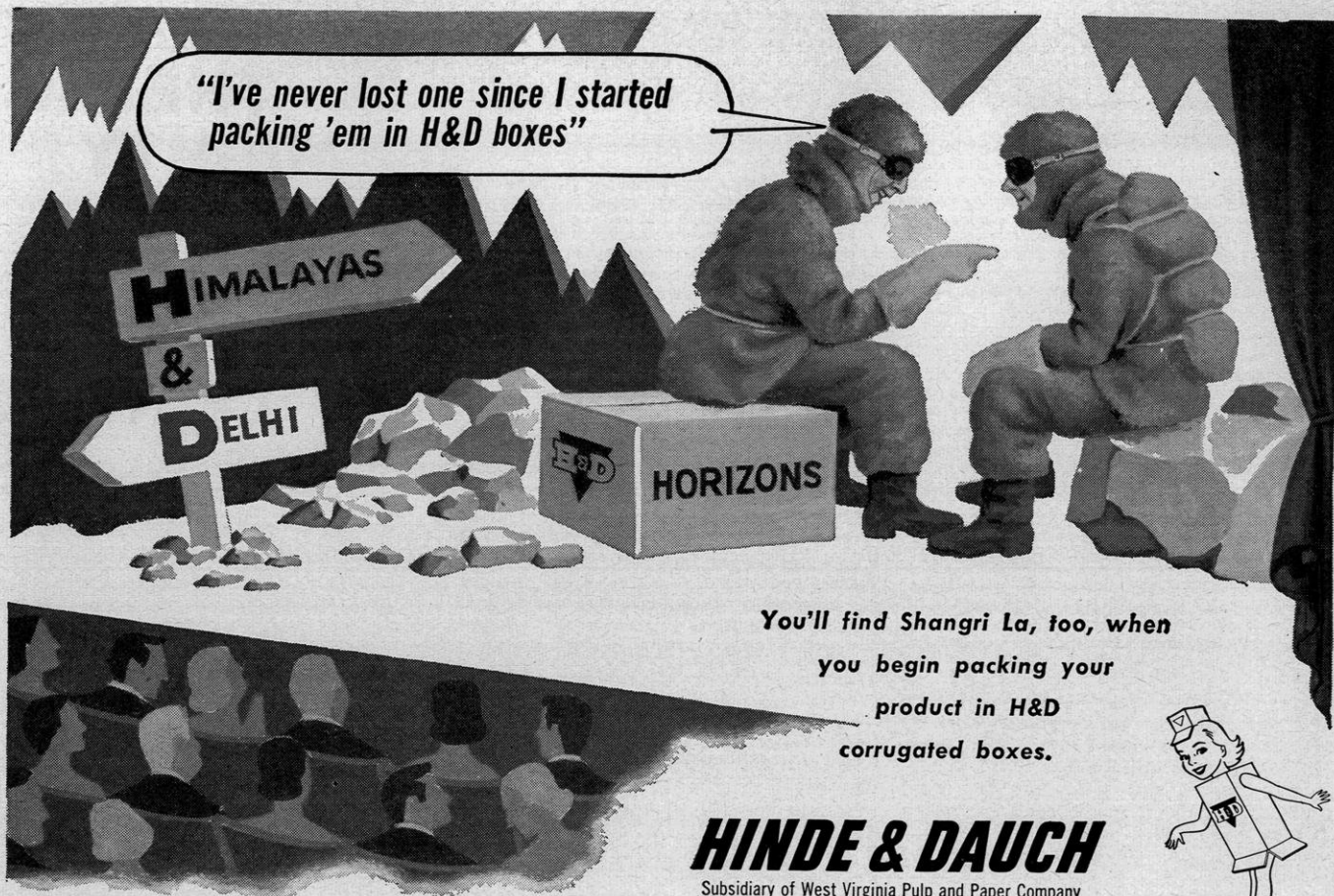
Don't miss this exciting and *controversial* feature. Read "*The Mighty Big Ten*" in March Holiday magazine!

ON SALE FEB. 19th!

# MARCH HOLIDAY

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14 FACTORIES AND 42 SALES OFFICES IN THE EAST, MIDWEST AND SOUTH

Mr. and Mrs. Richard V. MacMILLAN (Grace HADLEY, '34) announced the birth of a daughter, Shirley Ann, in September. They live in Wantagh, N. Y.

Gretchen SCHEIBEL, '35, conducts her own studio for interior decoration in Des Moines, Ia.

Staff judge advocate for headquarters, Second Air Force, Barksdale AFB, La., is Col. Kenneth B. CHASE, '35.

Harriette J. WELTON, '35, has her own interior decorator shop in Tokyo, Japan.

"The Tycoon and the Bell Knocker", a short story by Ken W. PURDY, '35, appearing in *This Week*, recalls the author's days as a carillonneur at the University.

Alice E. WILLIAMS, '35, was married to Claude J. STORY, '48 in Madison. She is a medical secretary at the Jackson clinic and he is a salesman for L. M. Berry Co., Milwaukee.

Frederick J. MEYER, '32, Red Dot Foods, Inc., president who was one of 12 presidents of large American firms to visit the Soviet Union during a month-long European trip, returned to Madison with many interesting impressions of Russia. He witnessed Russian agricultural research and development and talked with the country's top potato research expert.

Owen GAHAGAN, '34, is head of the new sales and service division of Drott Tractor Co., Inc., Milwaukee. The division, with headquarters in Madison, serves southwestern Wisconsin.

Hermann A. BECK, '32, is with the American embassy in Baghdad, Iraq.

Dr. Herbert A. ALBRECHT, director of agricultural and home economics extension, Pennsylvania State University, was a delegate to the seventh International Grassland congress in New Zealand.

William ACTOR, '33, has purchased the Four Corner drug store in Eau Claire.

Thomas E. HAMILTON, '33, Westfield, Wis., is Agriculture Secretary Benson's staff assistant in charge of the soil bank's conservation reserve program.

Paul M. CORP, '33, is president of AllianceWare, a subsidiary of American Metal Products Co., Detroit, of which he is vice-president and a director.

L. F. HOEBEL, '34, assistant treasurer of Mutual of Omaha, is a member of the board of directors of the Companion Life Insurance Co., of New York.

Rosemary SOLMES Williams, '34, is secretary to the head of the vehicle dynamics department of Cornell Aeronautical Laboratory, Inc., Buffalo, N. Y.

John VAN KOERT, '34, of New York City and Clearwater, Fla., is a designer of popular priced furniture, silverware, and jewelry.

#### 1936-1940

Al PAGEL, '35, Janesville, was honored by Firestone for 20 years service with the company.

Kenosha Police Chief Stanley HAUKE-DAHL, '38, is president of the Wisconsin

Police Chief's Association.

Ruth Juanita TORRANCE, '39, is an American vice-consul in Leopoldville, Belgian Congo.

Prof. Clifford LIDDLE, '39, of the School of Education, who spent two years as chief educational adviser to the U. S. Technical Cooperation Mission in India, now is on the staff of the Coordinating Committee for Higher Education.

#### 1941-1945

Clyde D. LAKE, '41, is with the Twin Cities office of Batten, Barton, Durstine and Osborn.

Maj. Paul H. NOLTE, '43, resigned as executive director of the Volunteers of America day nurseries, Milwaukee, to join the volunteers' western organization.

Robert E. Lee, '45, has opened offices in Green Bay for the practice of civil and sanitary engineering.

#### 1946-1950

Arlie MUCKS, Jr., '47, is a member of the Northern Great Lakes Council. He is manager of the Madison Chamber of Commerce's new tourist and convention division.

Anton MELBY, '48, and Patricia Meighen, Duquesne, Pa., were married in September. He is head of the oil division of E. I. du Pont de Nemours, Wilmington, Del.

Walter HANNA, '49, is studying at the Harvard University School of Business Administration.

Wisconsin Alumnus, February, 1957

## Necrology

Edward W. LAWTON, '89, Green Bay industrialist.

Mrs. Charles F. Weller (Eugenia WINSTON), '89, of Conway, N. H.

Anna J. HASWELL, '91, a pioneer nurse in the Madison area.

Sarah E. BROWN, '94, former Milwaukee teacher.

Mrs. A. H. Sanford (Luella M. ROBERTS, '94), of La Crosse.

Elizabeth S. STODDARD, '08, Madera, Calif.

Frank A. EDSON, '09, Chillicothe, Ill., some time ago.

Frank V. WEDLOCK, '10, founder and president of Peerless Rubber Co.

William H. GREEN, '10, Goshen, Ind.

Reginald E. SANDERS, '12, Neenah.

Sister Mary Reparata (Frances J. MURRAY, '12), world-famous librarian, River Forest, Ill., two years ago.

Alfred L. BUSER, '12, captain of the 1911 football team, St. Paul, Minn.

Marguerite HINCKLEY Smith, '15, Milwaukee.

Albert J. CRAMER, '16, (UW emeritus) professor and dairy expert, Santa Monica, Calif.

Lester W. ACHENBACH, '18, Helena, Mont., some time ago.

William H. TWENHOFEL, '18, professor emeritus of geology and former department head, Orlando, Fla.

Lee W. HUTCHINS, '18, Grand Rapids, Mich., president of the Hazeltine and Perkins Drug Co.

Dora E. MAW Roberts, '19, Sacramento, Calif., one year ago.

Hilding Franklin NELSON, '19, Rockford, Ill., some time ago.

James M. HAYDEN, '19, Chicago, one year ago.

George OSTRANDER, '20, Berlin, Wis.

Herbert J. MUTH, '21, Milwaukee.

Donald S. MILLMAN, '23, Flint, Mich.

Orville S. FOLKEDAHL, '26, Blanchardville.

Henry L. BERNER, '26, co-publisher of the *Antigo Daily Journal*, Sacramento, Calif.

Alberta JOHNSON Price, '26, prominent state historian, Oconomowoc.

Clarence H. TRAVER, '27, Fairport, N. Y., some time ago.

Louis H. PALEY, '29, former Madison businessman, Los Angeles, Calif.

Vincent P. BATHA, '29, Carroll college professor, Waukesha.

Fred E. GUSTIN, '29, prominent school administrator, Stevens Point.

Emil F. WAGNER, '30, Madison.

Kenneth N. WALTERS, '31, Peoria, Ill.

Harold T. THORSON, '33, Rice Lake.

Wray Vernon DRAKE, '34, Whittier, Calif.

Lawrence KLEE, '35, radio and television script writer, Westport, Conn.

Eugene SILVERMAN, '35, New York City, some years ago.

Earl Harold KABELE, '44, Portage, Wis.

Marjorie NORTH Loring, former Madison resident, New York City.

Wesley ROELS, '47, De Pere.

Sidney B. ORMAN, '52, Naugatuck, Conn.

Eugene LEVITT, '53, Bronx, N. Y.

Richard HODGSON, '54, Rice Lake.

Barbara SKALITZKY, '57, Waterloo.

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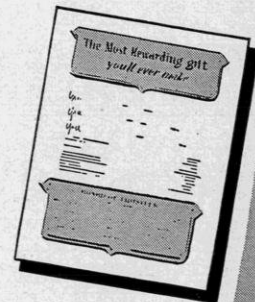
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# Meet Bill Hancock

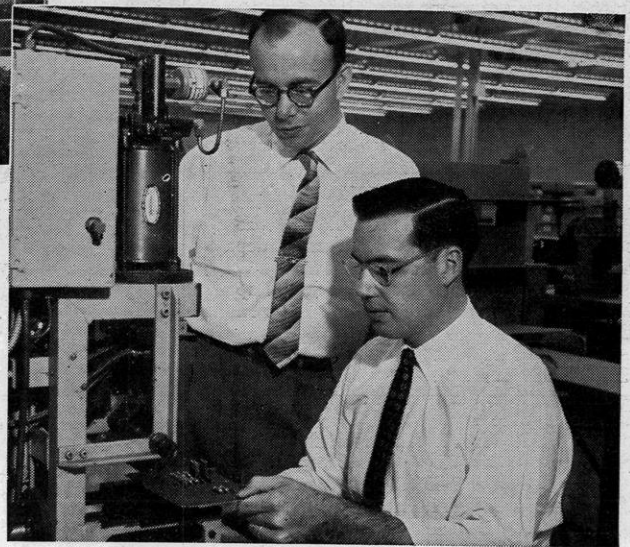
*Western Electric development engineer*



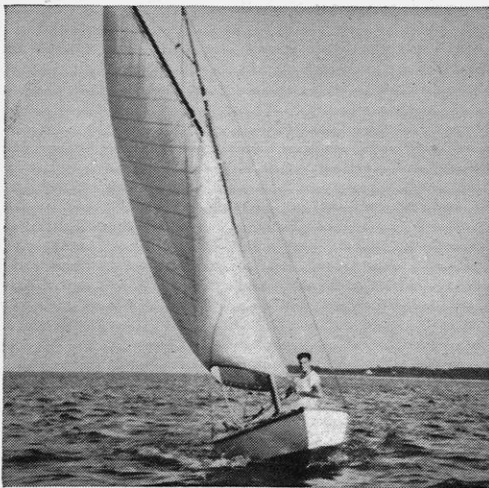
Bill Hancock is a graduate of Pennsylvania State University where he majored in industrial engineering. Bill joined Western Electric as a planning engineer in November, 1951, at the Kearny Works in New Jersey. Later, he was assigned to the new Merrimack Valley Works in North Andover, Massachusetts, as a development engineer. Here Bill is shown leaving his attractive New England home for his office while his wife, Barbara, and their daughter, Blair, watch.



Bill's present assignment at Western Electric: the development of methods and machinery for assembling one of today's most promising electronic developments—electronic "packages" involving printed wiring. At a product review conference Bill (standing) discusses his ideas on printed wiring assemblies with fellow engineers.



Bill and his supervisor, John Souter, test a machine they developed to insert components of different shapes and sizes into printed wiring boards. The small electronic packages prepared by this machine are being used in a new transistorized carrier system for rural telephone lines.



Sailing off the north shore of Massachusetts is one of Bill's favorite sports. He also enjoys the golf courses and ski runs within an easy drive from where he lives and works.

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