Notre Dame

A Magazine of the University of Notre Dame

SPRING • 1950

CANCER

HEART DISEASE

TUBERCULOSIS

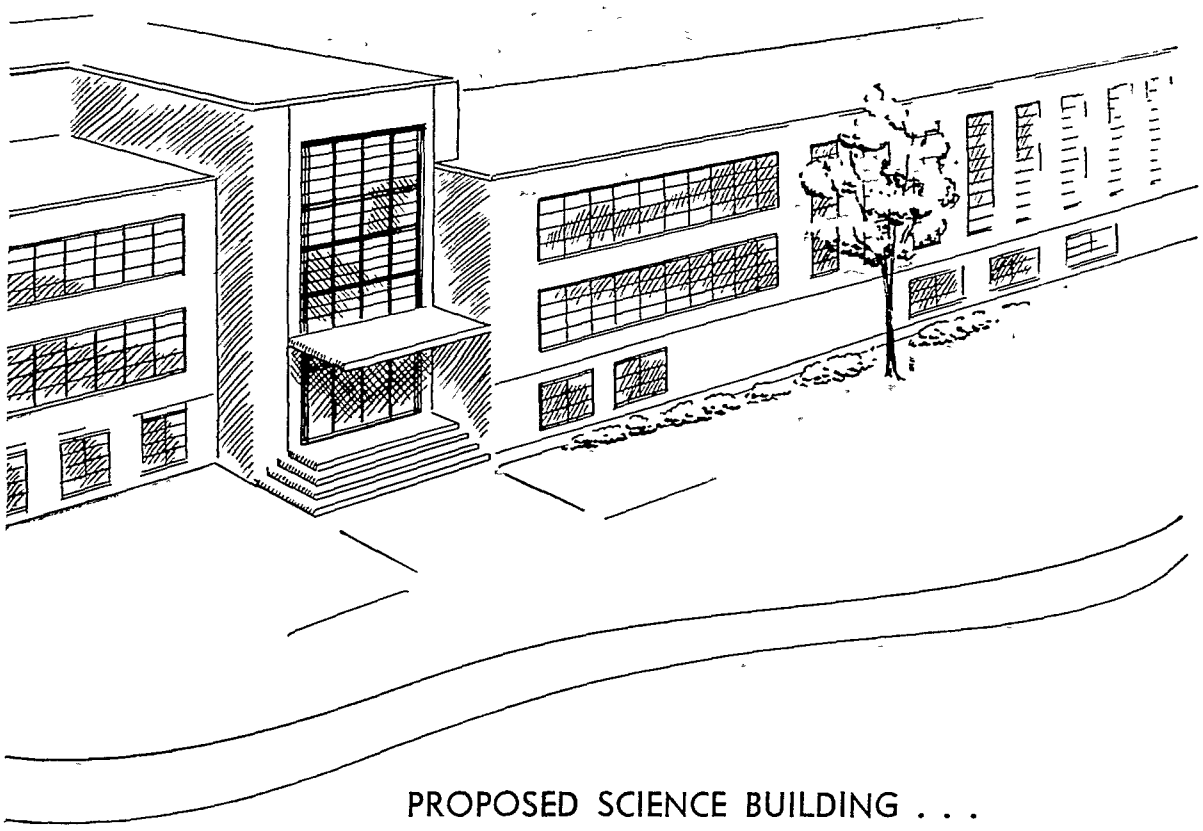
Rh FACTOR

ATOMIC ENERGY

SYNTHETIC RUBBER

MALARIA

PLASTICS



PROPOSED SCIENCE BUILDING . . .

half-million dollars for Fund in 1949 . . . gifts still being accepted from loyal alumni and other interested friends . . . costs $1,750,000 . . .

VOL. 3 • NO. 2

The University of Notre Dame

UNDERGRADUATE SCHOOL

The College of Arts and Letters • Department of Religion; Department of Philosophy; Department of English; Department of Classics; Department of Modern Languages; Department of History; Department of Economics; Department of Political Science; Department of Sociology; Department of Education; Department of Physical Education; Department of Art; Department of Music; Department of Speech; Department of Journalism; Department of Naval Science; Department of Military Science (Air Force).

The College of Science • Department of Biology; Department of Chemistry; Department of Physics; Department of Mathematics; Department of Geology.

The College of Engineering • Department of Civil Engineering; Department of Mechanical Engineering; Department of Electrical Engineering; Department of Chemical Engineering; Department of Architecture; Department of Metallurgy; Department of Aeronautical Engineering; Department of Engineering Drawing; Department of Engineering Mechanics.

The College of Law.

The College of Commerce • Department of Accounting; Department of Business Administration; Department of Finance; Department of Marketing.

GRADUATE SCHOOL

The Arts and Letters Division • Department of Philosophy; Department of English; Department of Classics; Department of Modern Languages; Department of History; Department of Music.

The Social Science Division • Department of Economics; Department of Political Science; Department of Sociology; Department of Education.

The Science Division • Department of Biology; Department of Chemistry; Department of Physics; Department of Mathematics.

The Engineering Division • Department of Metallurgy; Department of Civil Engineering; Department of Mechanical Engineering; Department of Electrical Engineering; Department of Aeronautical Engineering; Department of Engineering Mechanics; Department of Chemical Engineering.

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The Mediaeval Institute of the University of Notre Dame is a foundation established within the University by the authority of the President of the University and his Council for the study of the thought, history and culture of the Middle Ages.

Laboratories of Bacteriology (LOBUND) • Constitutes a research organization of full-time scientists effecting a program in Germ Free Life, Micrurgy, and Biological Engineering, which is concerned with many basic and applied problems of importance to biology and medicine.

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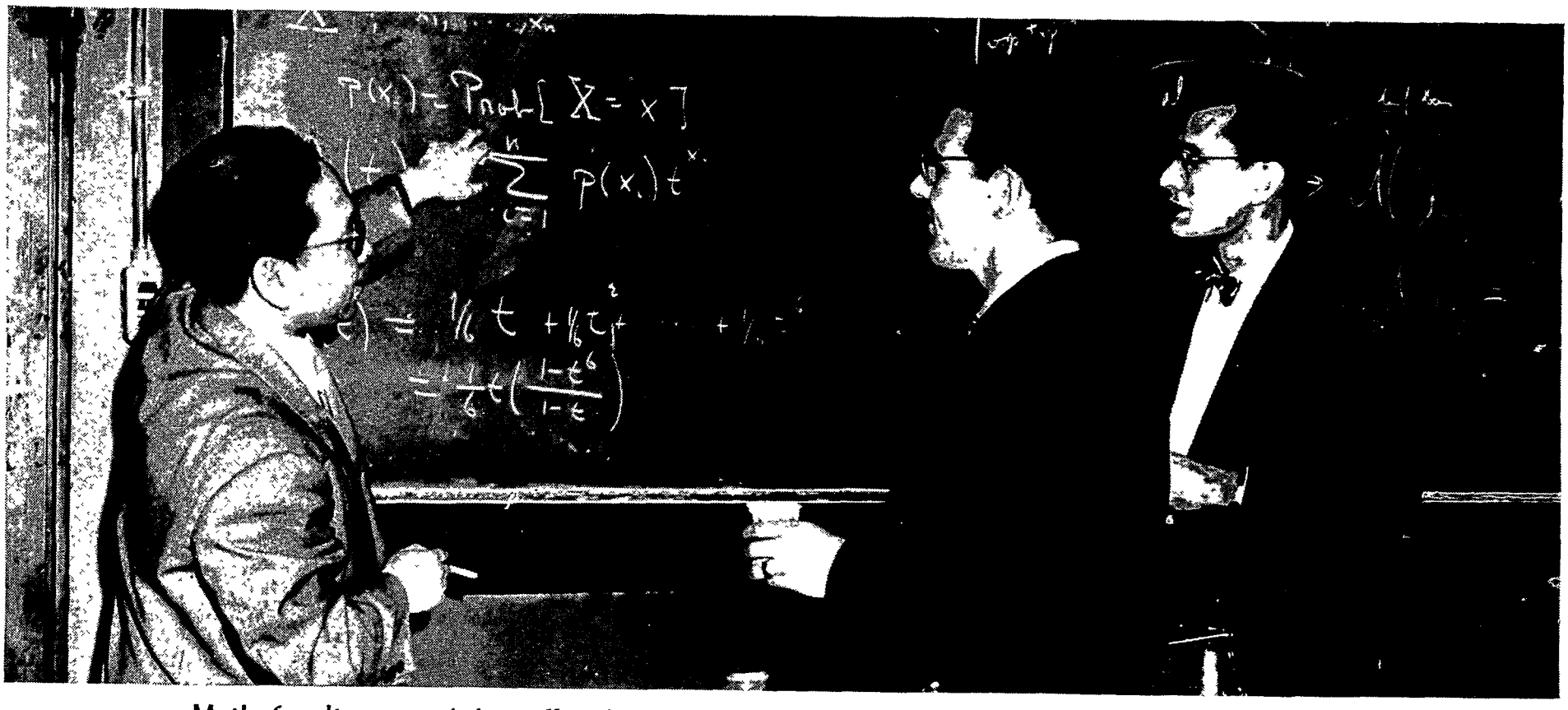

Math faculty *meets informally with graduate students every Friday afternoon to talk over problems of teaching and research. Above, Dr. Ky Fan uses a convenient blackboard to demonstrate his point in a discussion with Dr. Richard Otter (seated) and Dr. Joseph LaSalle.*

Dice, Stud Poker and Math

Curriculum in Department of Mathematics Presents Diversified Trends in Classroom Study

By Joseph M. Dukert

"TEN of hearts, deuce of clubs, seven of hearts, and a big ace of diamonds . . ."

"Check!"

Maybe you're wondering what a conversation like that has to do with studies in a University. Well, it fits in a lot better than you might think, because it isn't a stud poker game . . . it might be the conversation of two Notre Dame students working on an ordinary nightly assignment.

Cards and dice aren't usually thought of as school supplies; but they're required materials for one freshman mathematics course at the University.

Now, don't get the idea that the local figure-wizards are being trained for a mass raid on the casinos at Monte Carlo, or that they use a text book like *Profitable Poker*, by Hoyle. The dice and cards are just a simple means of bringing what a mathematician calls "statistics and probabilities" problems down to earth. And of course no gambling is involved; the students simply figure out the frequency with which certain combinations of numbers and suits appear. Then they go on to apply this practice to more conventional math problems.

The whole idea of presenting elementary courses in a way that will keep student interest at a peak is an especially important one with the Department of Mathematics, since its classes must appeal to a greater variety of student interests than any other department in the University. Arts and Letters men, Commerce students, Engineers, and a whole raft of assorted Science majors enroll in math courses at some time or another during their stay at Notre Dame. Some whisk through two semesters just to fulfill college requirements; others spend the best part of four years studying the complex formulas and equations that fascinate the mathematician and mystify the average layman.

But today mathematics is playing an increasingly important role in a number of fields, and the department has a responsibility of service to almost every branch of the University.

"That's why we are constantly trying to revise our courses, raise our standards, and improve our techniques," says Dr. Arnold Ross, head of the department and a noted researcher in his own right. "We are of course intensely interested in our own math majors. We help them as much as we can by individual attention, educational experiments, and a closely-knit, logical course of study.

"But nowadays everybody needs some mathematics. Economists chart graphs, sociologists look for relationships between the statistics of crime and poverty, businessmen are familiar with financial cycles. Anybody who

reads a daily newspaper is bombarded on all sides by 'mathematical proof' of a thousand and one things.

"Here in the Department of Mathematics, we aren't trying to invade the field of applied mathematics in any specialized subject. We would just like to make it easier for the student to grasp those applications later, by giving him a strong early foundation in mathematical theory."

Mathematics 28 — the course that uses an ordinary gin rummy deck and a pair of spotted cubes to make homework an unusual pleasure — is a good example of this idea. It isn't a subject for math majors . . . about half of its students are using it as their frosh science requirement in Commerce or AB. But instead of being pushed through advanced geometry, trigonometry, and a lot of other topics that have always been considered good "culture subjects," they learn the fundamentals of useful statistics.

The whole program in simple statistics is under the direction of Dr. Richard Otter, who meets with his graduate assistants each week to discuss the questions that arise in class, and to suggest means of expressing difficult concepts in concrete examples. According to Dr. Otter, who participated in similar teaching experiments at Princeton University before he came to Notre Dame in 1947, the students have shown enthusiastic reaction to the new methods.

"Almost immediately they become absorbed in the novelty of our assignments; and later they begin to realize the full implications of statistical diagnosis," he says.

"In our treatment of probabilities they deal with the number of times a coin will turn up 'heads' or 'tails' in 100 flippings. But they can use the same principle to decide whether a newspaper's 'spot survey' poll is accurate within a reasonable margin of error. The freshman math course has ceased to be a dead requirement for them and has become instead a valuable stepping stone in their liberal education."

But despite the fact that mathematics has had to tailor many of its courses to suit the needs of other departments, its prime purpose is to give Notre Dame math majors the best possible training in their chosen field. They have succeeded here also, and much of the credit in this respect is due to Dr. Ross himself. Since 1946, with the advice and help of the entire math faculty, he has established a whole new curriculum. Today, its standards of achievement place Notre Dame among the outstanding universities in the country for a mathematics education.

"Our aim is simply this," says Dr. Ross. "If a firm hires one of our graduates to fill a certain position, we want that man to be so trained that his new employer will want to hire another Notre Dame mathematician when the next vacancy occurs."

In line with this ideal, the whole study program has been re-designed and intensified during the past four years, working down from the senior courses to the freshman year. Subjects which used to be required of first year grad students are now taught to seniors. Former junior subjects are being changed to regular sophomore courses. The links between various classes have been made more clear, both to students and faculty.

One course in "quality control," of special importance to industrial engineers, has gained such recognition that a group of Air Force inspectors from the surrounding area recently requested Professor Paul Nastucoff to teach a special night class in it, so that they could study the material after they had finished their daily duties.

Another activity in which the department has been of great help to groups beyond the regular student body is the summer session for mathematics teachers. Formalized this year for the first time as the "Mathematics Teacher Training Institute," this program has been helping to train math instructors from high schools and colleges since the summer of 1947.

Annually it attracts teachers, mostly religious, from all over the United States. Teaching techniques are not stressed as such, although the visiting teachers often adapt various instructional aids used in the summer courses to their own use.

New math teaching *methods are argued by graduate students in a free-for-all gabfest.*

Despite the many advances which Dr. Ross and his associates have made, the department's progress has been limited somewhat by lack of more adequate facilities. Many of these gaps in space and equipment cannot be filled until the new Science Building is erected.

For instance, the 25 graduate students who now assist the regular faculty in teaching duties are forced to share one room, equipped with only six desks in what is practically a corridor. In the new building they will be provided with semi-private work rooms, where they will be able to carry on research studies and prepare teaching programs. By limiting each room to two or three instructors, Dr. Ross explains, it will make it easier for their students to meet them for important individual assistance and advice.

Another important feature of the new Science Building will be more room for the rapidly expanding Science Library. Since 1946, necessary acquisi-

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James E. Armstrong, '25, Editor.
John N. Cackley, Jr., '37, Managing Editor.

Contributors' views do not necessarily reflect those of the University. Requests to reproduce material in this magazine should be addressed to the Editor.

Vol. 3 No. 2 Spring, 1950

tions have doubled the number of books and periodicals kept there for student and faculty reference. But all of the shelves in the present one-room library have been filled; and a recently purchased series of mathematics books — worth about $1400 — is now being "stored" on a table in another room.

"These new books are essential for our work," Dr. Ross points out. "Scientific texts were very hard to obtain during the war, so when I came here our library facilities were quite inadequate. It has taken a lot of detective work to find some of the publications which we have bought since then. We finally tracked down one set of journals in Palestine; and we've just ordered some others from Holland."

The new quarters for the mathematics department will also boast two modern laboratories — one for statistics study and one for numerical methods work. Here the students will get practice in using various types of simple and complex calculating machines.

In a mathematics workshop to be set up in the new structure, students will have the necessary tools to produce models of geometric figures for use in classroom exhibits. A mathematics museum is planned too.

But, in the meantime, study and research is continuing at a rapid pace in the department's old quarters. In explaining the recent scientific achievements by various members of the faculty, Dr. Ross divides the subject into three categories — mathematics of today, mathematics of tomorrow, and mathematics of the future.

"Mathematics of today" is not really mathematical research at all; it is simply the application of previous discoveries to present-day industry and science. This type of work is done primarily by the Departments of Physics and Chemistry and the College of Engineering.

But significant studies are being made in the department on some subjects that will find important application in the near future (Dr. Ross calls these "mathematics of tomorrow"), and on others that are now strictly theoretical but may find practical use twenty, thirty, or even fifty years from now ("mathematics of the future").

According to Dr. Ross, the importance of this last type of mathematical work is too often overlooked. "Fundamental research is necessary," he says, "because it is the only avenue in which really startling originality is possible. And it may well have practical value later on. Einstein's theory of relativity, which was called interesting but useless when it appeared, became 'mathematics of today' when the first atomic bomb was exploded."

Among the Notre Dame research projects which may have profound effects on other fields in the near future are those of Dr. Joseph LaSalle and Dr. Richard Otter. Both are highly technical in their explanations and methods; but one doesn't have to be a mathematician to see their possibilities for application.

Dr. LaSalle's research is in a field with the frightening name of "non-linear differential equations." You see, mathematicians used to think that most simple movements, like the swing of a pendulum, could be measured by simple, regular proportions (expressed by a straight line on a graph). But recently they discovered that many operations, especially in complicated machinery, could only be understood by a scientific headache called non-linear mathematics.

In the long run, though, the newer methods will make the machinery itself simpler. When Dr. LaSalle's research is completed, for instance, it may help to make industrial safety-control machinery cheaper. In wartime, it could be used to direct the fire of anti-aircraft guns. At present, Dr. LaSalle says, the Russians are far more advanced than this country's scientists in the study of these problems, so the work may eventually play a vital role in the realm of national defense.

Dr. Otter's objectives are even easier for a non-mathematician to understand, but the name is still a jawbreaker. His subject matter is called "the theory of the multiplicative process." Boiled down to five-cent words, here's what that means:

Suppose a man has two sons. One son has two children — both boys; while the other becomes the beaming papa of a boy and a girl. That adds up to a total of three grandsons, one of whom remains a bachelor. The others have two male offspring each. How long will it take for the family name to die out? And how many persons will the total family tree include eventually?

The "odds" here have to be determined by experiments and observation. But the actual "probability" of a man having two, three, or no sons at all, doesn't matter much in Dr. Otter's work. For he has evolved a series of formulas which can be applied to any series like this, simply by substituting

(Continued on Page 24)

The author is a junior in the College of Arts and Letters and is majoring in Journalism. He will graduate in June, 1951, and present plans call for a newspaper job. Last summer Mr. Dukert was on the copy desk of the BALTIMORE NEWS-POST, *and helped to organize the publication of three Catholic parish newspapers in Baltimore. He did general reporting for five Baltimore weeklies. While at Notre Dame, Mr. Dukert has been a member of the* SCHOLASTIC *staff and currently is employed as a student assistant in the Department of Public Information.*

Unorthodox class assignment *in elementary mathematics is disclosed to freshman Marion Smoker (r) and Stephen J. Hauser, a teaching fellow, by Dr. Otter.*

everything under the SUN

ND Grad Covers Europe for *Baltimore Sun*

By HAROLD A. WILLIAMS

A FOREIGN correspondent, I think, has the best job in the newspaper business because:

1. He is usually at least several thousand miles from the home office.* As any reporter who is within hailing distance of the city desk will tell you, this is simply wonderful.

2. He has a liberal expense account. Such items as "snowshoes for Alps story, $17.84" and "rental camel for pyramid story, $361.23" are seldom questioned.**

3. His copy, while not inviolable, is treated with respect and seldom changed or butchered. This, I think, is because copy readers know what the cable charges are. They can't bring themselves to blue pencil a word that cost six and a half cents to transmit.

4. He has the opportunity to meet such interesting people: channel swimmers, baccarat bankers, exiled royalty, chancellors, prime ministers, foreign ministers and Larry Rue, correspondent of the Chicago *Tribune*.

Larry is the dean of the European correspondents. As such he deserves a few words. Larry knows everyone of importance in Europe, and, even more important, they all know him. There are enough stories about Larry to fill a book, in fact, the stories have helped to fill a number of books. Bob Casey's book, "Such Interesting People", is an example.

This is one of the latest Rue stories: When correspondents were sitting in the press gallery at Bonn, waiting for the opening of the new government, someone looked around and noticed that Rue wasn't present. A colleague explained, "Larry hasn't yet recognized the Federal Republic of Germany".

Larry offhand can tell you the names of the headwaiters in every good restaurant in western Europe, the unlisted telephone numbers of every French cabinet member (most of the correspondents have a hard time remembering the names), and the inside story of every Balkan *coup d'etat* since 1919.

Larry once used an airplane to cover the news. At the present he gets around with two automobiles and a motorcycle. The automobiles are equipped with compasses because Larry has no faith in European road signs. The report that he has installed radar in his automobiles is not true. As Larry said, "I'm just thinking about it."

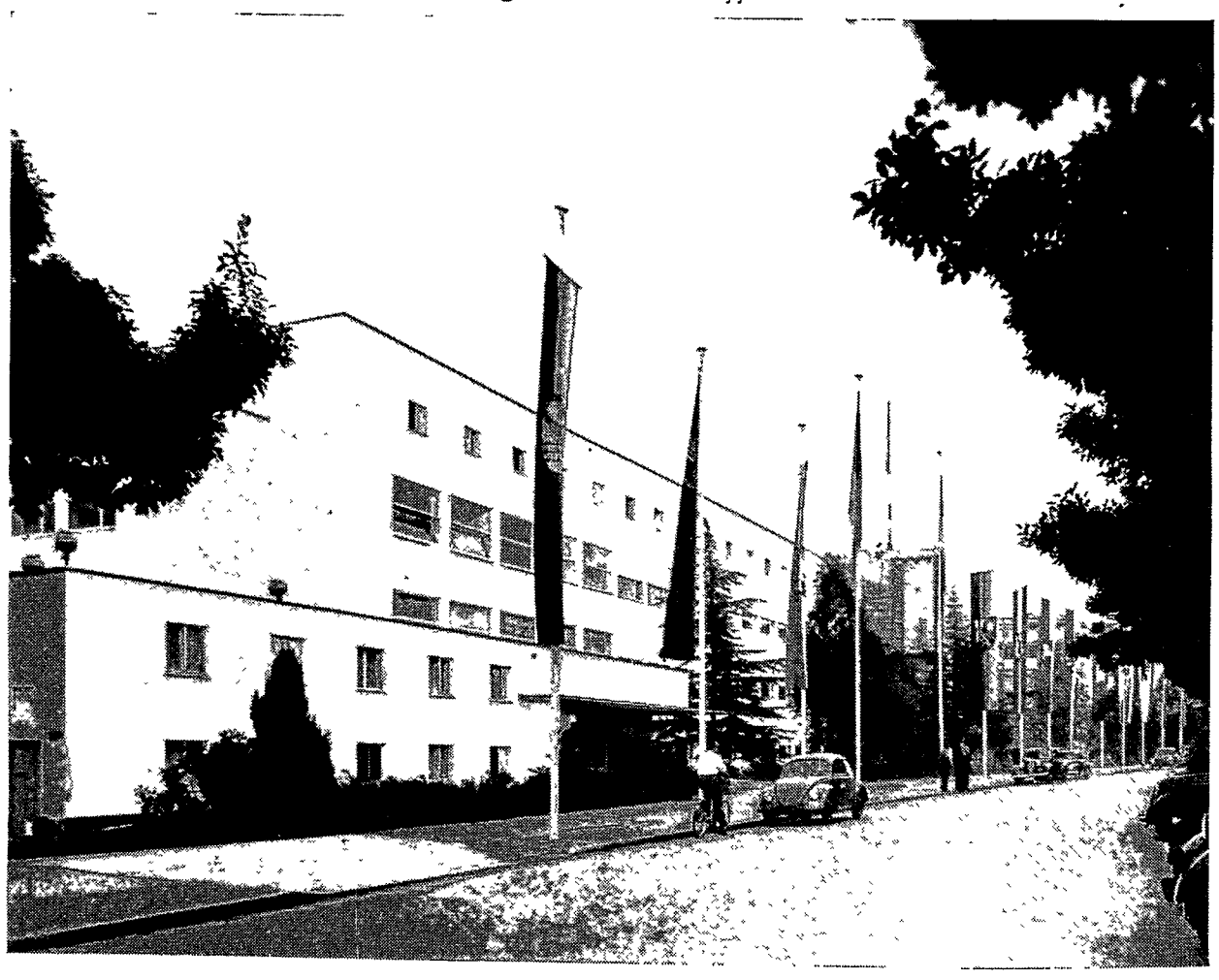
To be a bit more serious, the job of foreign correspondent is, as even the most cynical of them will admit, right at the top of the list.

Like most jobs it has its monotony, routine, excitement, joys and headaches.

On some days there is little to do but attend to such chores as getting permits, travel orders, visas or gasoline coupons. On other days there is enough work to keep the correspondents busy for eighteen or twenty hours. Like the reporter in the States, the foreign correspondent is not working a major story every day. On most days it is the routine of making the rounds of sources, checking tips and reports, digging out the news.

Most of the foreign correspondents today are young men, too serious about their jobs for much play. Occasionally one finds a newspaperman of the old school who likes to ride bicycles down the red-carpeted stairs of the Quai D'Orsay or indulge in other stunts. They are the exception. The demands of the readers,

West German *governmental offices in Bonn.*



* Of course, the home office can still reach you by cable. They send two types. Example of type "a" which generally arrives during a revolution, flood, earthquake or gin rummy game: "MAKING INVENTORY STOP SEND SOONEST TYPEWRITER SERIAL NUMBER." Example of type "b" which always arrives between 2 and 4 A.M., "WANT IMMEDIATELY REACTIONS HIGHEST OFFICIALS RE LATER COMMUNIST MOVE." High commissioners, chancellors, potentates, like anyone else awakened in the middle of the night, aren't talkative at 3 or 4 A.M. What they do say can't be printed in a family newspaper.

** When a correspondent in Egypt included in his expense account the item, "camel rental, $361.23" his office replied, "THINK THIS IS HIGH STRONGLY SUGGEST OTHER TRANSPORTATION." His next expense statement included the item, "Purchase of one camel, $1,000." The office sent an urgent message, "SELL CAMEL IMMEDIATELY." His next expense account carried the notation, "Camel died. Rental of one camel, $340."

and the editors, for thorough, intelligent coverage of the complex, often fast-breaking foreign news leaves little time for high-jinks. Of course another factor, and not too incidental a factor, is the appearance in the last year of the correspondents' wives and families on the scene. The wife has "normalized" the life of a correspondent. After a hard day at the office or in the press gallery the foreign correspondent goes home to his wife and children. After dinner he puts on his slippers and picks up a copy of the *Saturday Evening Post*. The only difference here is that the magazine is a month old.

Western Germany is regarded by editors as one of the best news centers in Europe. There are at least six primary news stories: the development of the West German Government at Bonn, the work of the Allied High Commission (consisting of the high commissioners of the United States, the United Kingdom and France, the occupying powers), Berlin (one of the two windows in the iron curtain; the other, of course, is Vienna), the Soviet dominated east German government in Berlin, the Ruhr, and the general recovery of Germany. The Berlin airlift, until it ended in October, was a tremendous story.

In addition to these primary news sources the woods are full of page one feature stories. The Oberammergau Passion Play is an example.

The most important news center in Germany is Bonn. It is the hardest story in Germany to cover adequately and intelligently. The German Government, just learning the principles of democracy, has a form of press censorship which funnels all important news from the thirteen ministries through the Government press office. Officials in some ministries are not allowed to talk to the press, either domestic or foreign. In addition to this, there is the native reluctance of the *Beamte* (German civil servant) to discuss any of his work with the press. Unlike America, it is not posible to drop into an official's office and ask him "What's cooking?"

Until the American press representatives offered technical assistance and equipment, it was extremely difficult to file spot news stories at Bonn. In the confused days before Parliament opened, correspondents either telephoned their stories to their bureau in Paris or London or crossed their fingers and filed them with the Deutsche Post, the Government owned and operated communications system which handles, in a bureaucratic manner, everything from local telephone calls to singing telegrams.

I still have nightmares about the first stories I filed at Bonn. The night before the opening of Parliament, I wrote two stories, an advance on the opening and a feature on the "Boomtown" aspects of Bonn which up until then was a provincial University town still somewhat excited because Beethoven had been born there in 1770.

I was directed to file my stories at the downtown post office because the press office across from the Parliament building was not yet functioning. It was too late to get a taxi—it was then 10 P. M. —so my interpreter and I walked the two or three kilometers into town. (The Bundeshaus is on the edge of town and at that time was partially surrounded by bean patches.)

The post office was locked but after banging and kicking on the door for twenty minutes we finally got inside. It was necessary to stand in a telephone booth and shout through a slot, about the size of a peephole in a speakeasy door, to talk to the men on duty. It was a warm night and my interpreter had halitosis.

Mr. Williams *(r) listens to the latest rumors from Joseph Dinan, Associated Press correspondent, while relaxing on the steps of the French Foreign Office.*

After examining my credentials authorizing me to send messages collect, the two officials, after a long consultation, filled out numerous forms. One form had to be done over because they dropped some ink on it. The form filling took about forty minutes.

An hour later I stopped back at the post office to see if the two stories had been transmitted to Frankfurt, where the messages are radioed to America. The officials were still shuffling the papers they had filled out.

I stayed there until 2:30 A. M. to make sure that the stories were sent. After they informed me that the stories were on their way to Frankfurt, I tried to check on their reception. It took about thirty minutes to get the call through; Frankfurt is almost 100 miles from Bonn. Just as the operator said "Here's Frankfurt" an electrical storm broke and so did the telephone wire. I found out, about thirty six hours later, that the two stories, totalling 2,000 words, did not reach the *Baltimore Sun* until 5 A. M., too late for publication in the morning paper.

It is almost axiomatic that whenever a big story breaks transmision will be difficult because of sun spots.

I filed a long story from Berlin on the opening of the East German Government and went to bed happy, not a sun spot in sight. About 3 A. M. the *Deutsche Post* telephoned my billet. "Did we get you out of bed?" asked a solicitous voice in broken English. The voice mentioned something about sun spots and asked what I wanted to do. The alternative, it was pointed out, was to send the story to London, by way of Paris, and have it cabled from there. A pigeon would get to Baltimore sooner. I gave instructions to pray that the sun spots would disappear and to send the story as soon as possible. It arrived in time for the final edition.

Interpreters also give correspondents gray hair. Some correspondents have

(Continued on Page 21)

The author is now covering the European news front for the BALTIMORE SUN *— one of the nation's key newspapers. Mr. Williams graduated from Notre Dame in* 1938 *with an A.B. degree. During his undergraduate years on the campus, he wrote for the* SCHOLASTIC, *served as secretary of the senior class, participated in freshman track and was employed on a student-job basis in the Alumni office. In World War II, the author achieved distinction as a member of the U. S. Army's enlisted ranks. Before leaving this country last summer, Mr. Williams was editor of the (Baltimore)* SUNDAY SUN MAGAZINE. *He has been active in the Notre Dame Alumni Association and until recently was City Chairman for the Notre Dame Foundation in Baltimore. A younger brother, Bob, crashed every sports headline in the nation's newspapers last fall, when he quarterbacked Notre Dame's national championship football team and gained All-America recognition.*

1949 Financial Report

Within the pages of this issue of NOTRE DAME and of the ALUMNUS, soon to come off the press — is a copy of the Foundation Report on gifts made to the University in 1949. The Report is most heartening and I should like to take advantage of the President's Page to thank you all once again for your generosity in our regard. Notre Dame's greatest source of encouragement today, her confident hopes for tomorrow, lie in this persevering loyalty and devotion.

One of the most heartening aspects of the Report — even apart from the record number of contributors and the unprecedented total of their contributions — is the fact that interest in and support of our endeavors extended to so many phases of the University's manifold operations. There were contributions to the various undergraduate departments and to graduate study and research, to the Mediaeval Institute and to the Laboratories of Bacteriology; there were grants for scholarships and fellowships, and gifts for student loan funds, new buildings, and the vitally important unrestricted endowment fund.

This widespread interest is so heartening because, while we had of necessity to place special emphasis on the desperately needed Science Building, failure on the part of our alumni and other friends to appreciate the urgency of these other needs might conceivably have compromised the University's over-all educational program.

Gift of Mrs. Fred J. Fisher

The largest single gift in 1949 recognized two of these needs in a very marked way. Mrs. Fisher's magnificent donation of $1,000,000 in memory of her late husband, Mr. Fred J. Fisher, is reported elsewhere in this issue. Here I should like only to observe that the particular objects of Mrs. Fisher's generosity have always been very special features of Notre Dame's system of education: on-campus residence for students, and the student aid program. Her benefaction will strengthen these features substantially.

New Science Building Gift

It is with genuine pleasure that I announce that Mr. Frank J. Herlihy of Chicago, President of the Herlihy Mid-Continent Company, has personally provided for the equipment for one of the major laboratories in the forthcoming new Science Building. The room will be known as the William Herlihy Laboratory of Nuclear Physics. This Nuclear Physics Laboratory was donated by Frank J. Herlihy in memory of his father, William Herlihy. This handsome act of generosity was made possible through the good offices of Mr. Britton I. Budd, Vice-Chairman of the Advisory Council for Science and Engineering, and Notre Dame Foundation committeeman in Chicago.

Mr. Herlihy is a nationally known contractor with very wide experience in engineering, construction and contracting of public works, subways, railroads and general building construction of every kind. He was formerly Engineer in Charge of Outside Construction for the Chicago, Milwaukee, St. Paul and Pacific Railroad.

Mr. Herlihy's substantial help brings nearer the day when construction will start on this very important addition to our much needed facilities for training young scientists, and I know it will serve as an added and important impetus to all who are engaged in the difficult task of raising the necessary funds.

A Word of Acknowledgment

I should like to take this opportunity to thank representatives of radio and press for the favorable publicity accorded both the Soviet Symposium held here at the University on Feb. 7-8, and the Third Natural Law Institute, held in the early part of December. In particular do I wish to express the University's thanks to the *South Bend Tribune*, the *New York Times*, *America* and *Time* magazines, Mr. Arthur Krock, the editorial writers of the *Chicago Tribune* and the *Washington Times-Herald*, the Columbia Broadcasting System, and South Bend's stations WSBT and WHOT.

* * *

Meanwhile, the less spectacular but all-important daily chore of educating the present generation of Notre Dame men goes on in the various colleges and departments of the University. In today's complex world of A-bombs and H-bombs, of national and international crises, of almost innumerable threats to the moral order in public as well as in private life, the education of tomorrow's leaders becomes a matter of tremendous responsibility.

We here at Notre Dame shall never be able adequately to thank you who are helping us shoulder this responsibility. But we shall ask God and His Holy Mother — especially during the approaching season of Easter and a Triumphal Resurrection — to thank you for us, and make us equal to the task that is ours!

John J. Cavanaugh, C.S.C.

Director of The Foundation
President of The University

GIFT: $1,000,000

Mrs. Fred J. Fisher, Widow of Lay Trustee, Donates One Million Dollars For Student Residence Hall and Loan Fund

THE announcement by Rev. John J. Cavanaugh, C.S.C., president, that through the generosity of Mrs. Fred J. Fisher, widow of the late Lay Trustee Fred J. Fisher, the University of Notre Dame will begin immediately plans for a $750,000 student residence hall, and the administration of a $250,000 loan fund for students, is one of the most significant in the history of benefactions to the University.

Only two other donors—Peter C. Reilly of Indianapolis, and the late Martin J. Gillen of Land O'Lakes, Wis., have been as generous.

Mrs. Fred J. Fisher

The history of Notre Dame benefactions is much shorter than the history of the University. In a report by the late Albert R. Erskine in 1924, when he was chairman of the newly created Board of Lay Trustees of the University, he states that it was not until 1916 that the University—then 74 years old—received its first real benefaction, a gift of $5,000.

The present campus was expanded rapidly between 1924 and World War II to accommodate the rising enrollment that numbered 3343 in 1940. Today's enrollment, in almost the same physical plant, numbers 4947. The need of new residence halls even aside from the replacement problem, is evident, and the significance of Mrs. Fisher's provision appreciated.

America is the land of opportunity if young men and women would only realize it, and take advantage of the opportunity offered them, according to Mrs. Fisher.

The widow of the founder of the Fisher Body Co. in Detroit, Michigan, provided the $250,000 of the $1,000,000 gift to "present an opportunity for the young man who is willing to work" in the form of a revolving student loan fund. The dormitory will be known as "The Fred J. and Sally Fisher Memorial."

Asked if the "opportunity philosophy," a unique project in modern education, was a new idea, Mrs. Fisher replied: "I believe everyone will agree, although it is sometimes forgotten, that the United States was founded as a land of opportunity. Those who came to America in the early days were not benefited by subsidies as they fought to develop this nation; all they asked was an opportunity. That also was the philosophy of my late and beloved husband, Fred J. Fisher, who was a man who made the most of his opportunities. Rather than being a new idea, the philosophy underlying my gift to Notre Dame merely is an attempt to return to the principles upon which the United States was founded."

Mrs. Fisher observed that she has visions of the revolving loan fund, established at Notre Dame by her gift, increasing steadily after the fund has been in operation for several years. She believes that students who are benefited by the Notre Dame fund will, as they repay their own loan to the University, realize the opportunity provided them by the fund and will further contribute to the fund in order to provide the same opportunity to a greater number of students in the future.

Joseph P. Savage, Chicago attorney for Mrs. Fisher, reiterated her belief in the "opportunity loan fund" established at Notre Dame.

"I can remember several times while chatting with Mr. Fisher about various topics, he would say: 'You know, Joe, I believe the underlying ideals on which America was founded have been almost disregarded. During my life time, all that I, and those men whom I know, asked was a fair opportunity. The trend now is becoming more and more toward people expecting to receive something for nothing. The sooner we return to the principles of those who founded America and provide more opportunities and fewer subsidies, for our young people, the better off they will be and the country as a whole.'"

Mr. Fred J. Fisher

Mrs. Fisher summed up her gift by saying that she "believes that the University of Notre Dame, which was founded and is administered by the Holy Cross Fathers, bolstered by this philosophy of opportunity, will receive many worthwhile students who are willing to work and who otherwise would be deprived of the Christian education provided by Notre Dame."

A Symposium

Nation's Experts on USSR Express Opinions of Russia's Background and Ideology

CORRESPONDENTS from the major newspapers of the nation crowded the University of Notre Dame campus, February 7 and 8. That was nothing unusual; Notre Dame has long been a major source of news. What was unique was the source of the news — a scholarly symposium on Soviet Russia.

The world's number one problem, Soviet Russia, was the subject of a symposium sponsored by Notre Dame's Committee on International Relations. The nation's outstanding experts on Russia convened on the Notre Dame campus to present a comprehensive series of lectures designed to cover the entire scope of the problem. Acting as chairman for the symposium was Rev. John J. Cavanaugh, C.S.C., president of Notre Dame.

"The very existence of Soviet Russia threatens the entire world with a catastrophe," the first speaker, Doctor Waldemar Gurian, told the audience. Dr. Gurian, Russian-born chairman of Notre Dame's Committee on International Relations, is the author of numerous scholarly articles and books on the Russian problem.

The Rockefeller Foundation, through a grant of $69,000 to the University of Notre Dame for study of international relations, partially financed the symposium on Soviet Russia. In accordance with the terms set by the Rockefeller Foundation, a Committee on International Relations has been organized here, to direct research in the interrelations of religion, democracy and international order. It will also devote particular attention to the rise of political religions in the twentieth century. The symposium addresses will soon be available in book form from the University of Notre Dame Press.

"Soviet expansionism and world revolution have merged together," Dr. Gurian said. "The Soviet leaders believe the world situation permits and favors attempts to carry out expansionist policies, whereas from 1922 they concentrated first upon strengthening and perfecting their internal totalitarian system.

"Up to now they have tried to avoid open war, though they do try to keep the world in crisis and insecurity and to exploit any possibility for advancement," he continued. "These changes and various policies correspond to the basic features of the Soviet regime from the beginning. The world revolution appears today as a feature of Soviet expansionism. The Soviet regime is too powerful today to regard itself modestly as a kind of first signal for world revolutionary developments."

Dr. Naum Jasny

Second speaker on the symposium was Dr. Michael Karpovich, of Harvard University, who described the background of thought control in Russia.

"Fundamentally, an all-embracing system of thought control is inherent in the very nature of a totalitarian state," he said. "It cannot recognize the autonomy of culture; neither can it acknowledge the existence of politically neutral spheres of human activity. Everything must be subordinated to the political aims of the regime.

"Thus the recent purge in the field of genetics, which came as a surprise to many outside observers, is but a logical outcome of the fundamental premises on which Soviet totalitarianism is based.

"The more vulnerable fields of intellectual activity, such as social sciences and philosophy, for instance, were affected from the outset," Dr. Karpovich said, "while others could enjoy a kind of limited and precarious freedom until the machinery of control became finally established and perfected. Today the process seems to have reached its completion."

Dr. Karpovich came to the United States in 1917 with the provisional Russian delegation and for some time was acting first secretary of the Russian embassy in Washington.

Third speaker of the symposium was Dr. Istvan D. Kertesz, a former diplomat for Soviet satellite Hungary, now teaching at Yale University. He outlined the methods of Soviet penetration in Eastern Europe.

"The Soviet pattern in Eastern Europe has been, first, isolation from the west, then political and economic integration towards Moscow, and at the same time, elimination of all other tendencies toward integration."

Freedom of movement is non-existent behind the Iron Curtain, he said. "Escapes were made very difficult by drastic methods in Eastern European states."

Dr. Philip Mosely, staff specialist in Columbia University's Russian Institute and a presidential adviser at many Big Three conferences, told of the way in which Russia has capitalized on national conflicts in Eastern Europe.

Dr. Mosely ridiculed the Soviet claim that Communism is the only system which eliminates national conflicts. He pointed out that the Soviet government itself has liquidated several of its nationality groups and destroyed their political existence.

National rivalries have been used by Russia to strengthen its grip over satellite states, he said. Documenting his statement, Dr. Mosely told how support of Yugoslav, Albanian and Bulgarian claims to Greek territory served for several years to bind these governments

on Soviet Russia

Symposium speakers *included: (standing, l to r) Drs. Naum Jasny and Stephen Kertesz, Rev. Francis Dvornik, Drs. Waldemar Gurian and Vladimir Petrov; and, (seated, l to r) Drs. Nicholas Timasheff, Michael Karpovich, Philip Mosely.*

to Soviet support. He stated that, since 1944, Soviet leaders have used the dispute over Macedonia to strengthen their control over both Yugoslavia and Bulgaria. The Soviet leaders did not invent the nationality conflicts, he said, but they have been prompt and ruthless in exploiting them.

Fifth speaker on the symposium was Dr. Naum Jasny, now of Stanford University but once a statistician for the Soviet government, who told the group that the Soviet government is expending more than 60 per cent of its income on state investment and armed forces compared to only 42 per cent a little more than 10 years ago.

Dr. Jasny said that concentration of financial resources in the hands of the Soviet state is accelerated by a sales tax on consumer goods amounting to more than 50 per cent of retail prices.

"The taxes are so effective in keeping down private consumption and concentrating financial resources in the hands of the state that, in addition to their main task of providing the large means for new investment and the armed forces, they permit lavish expenditures on education and health services," he said.

"Although the industrial output of the USSR has expanded much less than officially claimed," he said, "the aim of industrialization as such may be believed to have been reached.

"The Five Year plans were embarked upon to transform the USSR from a predominantly agricultural nation into an industrial country with terrific speed," he told the Notre Dame audience. "As time passed, the elevating of the USSR to a first-rate military power, inferior to nobody, has become an even more important aim."

Dr. Vladimir Petrov, who spoke on Soviet terrorism, is a man who knows his subject first-hand. He was six years a prisoner of the Soviet government in Siberia.

An internal revolution could never break the hold of the Soviet government, he said. "Russia's citizens do not dare fight against the Soviet system, despite the fact that it is an object of hatred by the entire population. The Soviet regime bases its rule entirely on fear . . . and the well-organized minority will remain in power until some outside force can shake it."

Dr. Petrov, who now teaches at Yale, said that no one in the Soviet Union is free from the fear of the ever present secret police. Furthermore, he said, "the secret police now has a constitutional right to jail anyone without trial for a term not exceeding five years solely on mere suspicion of anti-Soviet activity."

Dr. Petrov sees no indication that this torture tactic will in any way change. "Everything can be collectivized in a totalitarian state except the minds of people. As long as this individualism exists, there will always be differences in opinion, which in a totalitarian state means the necessity of terrorism to suppress the opposition."

"Freedom of religion in Soviet Russia is still just a hollow myth," Dr. Nicholas Timasheff, an exiled Russian sociologist, told the audience. Dr. Timasheff, now a member of the faculty at Fordham University, discounted the importance of re-

(Continued on Page 21)

Mr. Leahy

The Marriage Institute

Unique Lecture Series Offered to Notre Dame Students

By REV. ROBERT J. LOCHNER, C. S. C.

A MAN who has achieved nation-wide fame in the past several years was introduced as the opening speaker of the first Marriage Institute—and the chairman remarked that he thought an introduction was necessary! Unquestionably, everyone in the audience at least had a "reading acquaintance" with this individual since there have been reams of copy written about him in practically every daily newspaper throughout the entire country.

However, until tonight, the more than 200 students who had voluntarily signed up for the Marriage Institute series had known Frank Leahy only as a football coach and nothing else. Now they were introduced to "another" Frank Leahy—Leahy the husband and father of a family. To this particular group, there was a great importance attached to what Frank Leahy was about to tell them—of much more concern than the intricacies of T-formation football.

Before elaborating on Coach Leahy's well-chosen words, it might be appropriate to tell briefly the background of the Marriage Institute. Notre Dame offered the Institute for the first time during the 1949 academic year because it firmly believes that learning how to live to the full as a husband and a father of a family is a very important part of education today.

Recently in one of our universities a new course was offered entitled "Consumer Economics." Its purpose was to instruct students on how young married couples can get off to a sound financial start. This course, undoubtedly, did some good but it did not go far enough. It could not fulfill all the needs of the newly married. Money is an important thing in life. And, as the program of the Institute (see next page) indicates there are at least eight or nine aspects of marriage that need to be considered if we are to live a well-rounded and complete married life.

Each topic on the agenda was presented by an expert, and almost half of the speakers were lay persons while the rest were priests. Wherever possible, a layman was used on the panel because marriage is the layman's great sacrament. The student and his interests were the primary guide-posts in planning this Institute. Each talk was followed by an informal period of questions asked by the students, and answered by the two speakers for that particular session. This proved to be one of the most interesting parts of the program.

Frank Leahy discussed the qualities we ought to look for in a wife, and on the man's side, he suggested practices and virtues the man ought to contribute to the partnership. In all of these items, he gave concrete examples from his own life. Toward the end of his talk he developed the point that marriage is very definitely a vocation in itself, and therefore demands from the student serious interest, serious preparation, and serious study — all of these factors have to be considered if marriage is successful.

There is a familiar saying that women were made to be loved, not understood. But a more important question here is just what is this thing called love? More specifically, conjugal love? People have even written songs about it. In the Marriage Institute, Father Bailey spoke on it and he pointed out that in married life one must: 1) love irrevocably from the first; 2) love mutually, i.e., be loved in return; 3) love the total person of the beloved in his or her supernatural destiny; 4) love altruistically, unselfishly; 5) find the completion of one's own personality in the beloved; and 6) desire the fruit of love, which is the primary objective purpose of the union, that is, children. To have love explained in this way is to understand clearly why love, primarily a spiritual thing, is an act emanating from the faculty of the will of man. We can see then why true love is not just a physical urge or a feeling of emotion.

One of the most interesting lectures in this series was given by Dr. Herbert Ratner, a staff member of Loyola Medi-

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The author is an instructor in Religion at the University of Notre Dame, and was ordained to the priesthood in 1946. Originally from Cleveland, O., Father Lochner received an A.B. degree from Notre Dame in 1937. He continued his education at Catholic U., and was awarded a Master of Arts degree in 1947.

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cal School in Chicago, and Commissioner of Health in Oak Park, Illinois. He is a man who has had wide experience not only as a doctor but also as a marriage counselor. Dr. Ratner debunked the modern illusion that, if one is to have a happy and successful marriage, it is necessary to study in detail and at great length with books, charts and pictures everything that is to be known about the physiological and anatomical aspects of marriage. He certainly was reasoning deeply and forcefully when he said, "If we had to depend upon physiology and anatomy to be successful in marriage, none of us would be here today. Human beings were living long before such subjects and such books came into existence. So God in creating man did not depend upon these things to make marriage successful."

In subsequent talks, the "other side" of married life was well developed and stressed by various speakers.

Mr. Robert Sullivan, a member of the College of Law faculty, married, a lawyer and former football player spoke on the legal aspects of marriage. A professor in the Department of Economics, Mr. Louis Radelet, himself a married man and father of a family, discussed a topic which every husband ought to know something about—money. Mr. Radelet treated the family as an economic unit and considered it as an enterprise. He suggested seven methods for the management of money by the husband and wife, and all of these had been found useful and workable.

Mr. and Mrs. Pat Crowley, of Chicago, gave a very interesting discussion of the project in which they are involved called Christian Family Action (CFA). This movement has, apparently, spread from coast to coast. Many neighborhood families form a group, have periodic meetings, and discuss and solve the problems of their own families and those of the community in which they live. The Crowleys explained the program for these meetings and how they were conducted. In the case of these two persons, they are interested in not only living a successful married life themselves but also interested in helping other couples and families do the same—and all families to live peacefully together as a community.

The final panel of this series was on the all-important topic, courtship and engagement. Father Theodore Hesburgh, C.S.C., Executive Vice-President of the University, and former chaplain of Vetville, where married students and their families live, spoke about courtship. The theme of his talk covered two important items: How to determine if your girl is *the* one and, how to win and deepen love leading to marriage?

The examples and advice he gave were highlighted by eight points: 1) be yourself—sincerity and frankness; 2) be thoughtful—try to make her happy, a better person; 3) associate with her in real life circumstances—don't live in a tavern; 4) pray with her—share inner confidences and ambitions and hopes; 5) don't over-spend yourself—nor be a cheapskate either; 6) give her a chance to do something for you—love grows on mutual sacrifice; 7) be mature, and respectful of her—gentlemanliness; 8) show her that you are the best man for her—by being it.

By the end of the eight week series and the last of the sixteen panel speakers, the students who attended the course of lectures realized at least one thing if nothing else—that life, and especially married life, consists of more than just movies, dinners and dances. And a realization of that is the beginning of conjugal wisdom and that is the first step to finding happiness and success in marriage.

Mr. and Mrs. Crowley

Marriage Institute Program

Session No. 1

Introductory

Father Frank Nealy, O.P.—The Crisis of Modern Marriage

Mr. Frank Leahy—Christian Marriage, a Providential Vocation

Session No. 2

Sociological Aspects of Marriage

Father Frank Cavanaugh, C.S.C.—Modern Family Tensions

Mr. John Kane—Family as the Basis of Social Living

Session No. 3

Psychological Aspects of Marriage

Father James Smyth—Psychology of Men and Women

Father Paul Bailey, C.S.C.—Conjugal Love and Marital Happiness

Session No. 4

Physiological and Educational Aspects of Marriage

Dr. Herbert Ratner — Physiology of Marriage

Father Joseph Haley, C.S.C.—Sex Education with Accent on Purity

Session No. 5

Economic and Legal Aspects of Marriage

Mr. Louis Radelet—Money and Marriage

Mr. Robert Sullivan — Law and Marriage

Session No. 6

Sacramental Aspects of Marriage

Mr. Patrick Crowley—Aiming for Sanctity in Marriage

Mrs Patricia Crowley—The Apostolate of Catholic Family Life

Session No. 7

Moral Aspects of Marriage

Father Philip Hanley, O.P.—Current Moral Attitudes on Marriage

Father Charles Sheedy, C.S.C.—Virtues of Christian Married Life

Session No. 8

Preparation for Christian Married Life

Father Theodore Hesburgh, C.S.C. — Purpose and Conduct of Courtship

Father Thomas McDonagh, C.S.C. — Engagement as Preparation for Marriage

Measuring Sticks of Maturity

After Its Diamond Jubilee, a Self-Made University Finds That It Has Outgrown the Economic and Academic Buckskins of Its Early American Life

(The story of the first stirrings of economic consciousness, beyond the simple faith and adjustments to hardships of seventy-five years, is found in the following excerpts from the first Universal Notre Dame Night Address in 1924 by the late Albert Russell Erskine, then president of the Studebaker Corporation and President of the Associate Board of Lay Trustees.)

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"Up to the year of 1916, the University had never received an endowment. In seventy-four years from the date of its establishment by Father Sorin and his associates, it grew from a log cabin with sixteen students to an immense institution with over one thousand students. While it received some scholarships and trust funds, its first endowment of $5,000 was received in 1916. It received no more until 1920, when $65,000 was given it. Immediately upon the organization of the board of lay trustees, the University determined to raise a $1,000,000 endowment fund and a $1,000,000 building fund. The first campaign was conducted in South Bend in the year 1921, when $350,000 was raised. Other campaigns were started and continued in numerous cities and among alumni members with the hearty cooperation and splendid assistance of the Alumni Association. Desiring to encourage the University and help towards the success of its plans, the General Education Board subscribed $250,000 to the endowment fund, payable in event the $1,000,000 goal was reached. The Carnegie Corporation subscribed $75,000 for the same purpose. To make a long story short, the $1,000,000 endowment fund was subscribed before June 20, 1922, and $344,446.88 was subscribed for the building and development fund up to March 31, 1924."

★

Today, in 1950, twenty-six years later, the University of Notre Dame continues to operate with one of the smallest endowments of any major university in America — $4,100,000. Its progress despite this handicap has been made possible by the benefactions of alumni and other friends, by sound business organization, and by the living endowment of the unselfish services of the priests and brothers of Holy Cross who in lesser and lesser numbers, proportionately, teach and administer the University.

Meth

(Seventh in a series of articles on the history of Notre Dame, adapted from the book, "Notre Dame One Hundred Years," by Rev. Arthur J. Hope, C.S.C.)

DIAMOND JUBILEE publicity in 1917 had revealed a stature for Notre Dame that probably even its own administrators had not consciously known.

College of Commerce---A Gift

The impact of the first World War added new power and new recognition to a campus that had long basked in the mellow sun of Catholic culture, imposed on a virile democratic way of life for young men that contained something of both cloister and country club.

The time was strategic for administrative change, and in 1919 the Rev. James A. Burns, C.S.C., austere, calm scholar, succeeded to the presidency, the tenth in the brilliant and varied line of succession.

Father Burns, who had achieved more recognition in the academic councils of American education, both Catholic and secular, than any of his confreres in the Congregation, was quick to sense the opportunity to stir the intellectual impulses and raise the standards of Notre Dame.

In spite of a rich and accidental heritage in the budding genius of Knute Rockne, which brought the headline writing of George Gipp and the undefeated football teams of 1919 and 1920, the scholarly pen of the new president wrote new pages steadily and uncompromisingly into the book of progress.

Over many loud voices of tradition and economic pessimism, the long-existing preparatory school was abandoned. The move not only made way for a growing postwar enrollment of college stu-

Gifts to Notre Dame in 1949

A Letter from the President

DEAR FRIEND OF NOTRE DAME:

You, who have shared so encouragingly our interests and our problems, are entitled to the report of our progress which I am pleased to submit herewith.

In its broad aspects, the year 1949 was the most encouraging to the University and its administration of any recent year. This was because of the unprecedented generosity and participation within the year by alumni and by friends other than alumni.

I am grateful to the Associate Board of Lay Trustees, to the Board of Directors of the Alumni Association, to the Advisory Councils of Science and Engineering and of Commerce, to the State Governors and City Committeemen of the University of Notre Dame Foundation, to the President's Committee in New York City, and to the campus staffs of these groups. It was through their zealous and effective missionary work that the story of Notre Dame was carried to many more persons than ever before. We believe the results have come from this understanding.

The two outstanding projects which comprised the major million-dollar gift of Mrs. Fred J. Fisher were most encouraging, not only in implementing principles of campus residence and student aid—which have marked Notre Dame from its founding—but in their confirmation that these aspirations of the University are shared by those who are looking for the proper training of young men.

Other generous gifts were diversified in purpose, which was an encouraging factor in itself. Our failure to achieve more than $484,365.36 toward our goal of $1,400,000 to complete the proposed Science Building, was offset substantially by this assurance that our other problems were not obscured by the concentration.

And we do have many other problems. We are constantly working under the handicap of a low and inadequate unrestricted endowment; we have the immediate problem of expanding maintenance facilities—a building, a sewage and water system, lighting and heating provisions—which are essential if we are to construct our new buildings, but which do not have the sentiment or the graphic appeal that mark academic projects.

Alumni giving reached a new high total in amount, and was accompanied by a participation of alumni ranking high in national comparisons with alumni giving in other schools. The number of non-alumni friends almost doubled our best preceding total. So we are encouraged in the solution of the problems we have obviously only implied. We know that great opportunities are inherent in these problems. We know that the training of a moral, responsible leadership is in itself full justification of our effort. But it is most gratifying to feel that our administrative convictions are shared, our problems understood, and our efforts supported.

I commend to your friendship this Report, with its rich significance of growing understanding and help. I trust that it will be a reward for those of you whose participation made it possible, and that it will be a stimulus to those for whom the sharing of a great purpose—the building of tomorrow's leadership—remains a satisfaction yet to be experienced.

Very sincerely yours,

John J. Cavanaugh, C.S.C.

President, The University of Notre Dame

Gifts to the University

A report prepared by the Uni

I. GIFTS FOR BUILDING PURPOSES

The Fred J. and Sally Fisher Memorial Dormitory		$750,000.00	
The New Science Building			
Anonymous (2 gifts of $25,000)	50,000.00		
Anonymous (2 gifts)	10,700.00		
J. H. Fendrich (Organic Laboratory)	10,725.00		
Charles M. Hayes	5,000.00		
Hearst Corporation	5,000.00		
Kresge Foundation (Electronics Laboratory)	25,000.00		
Arthur B. McBride (Nuclear Physics Laboratory)	5,000.00		
Edward J. McBride	10,000.00		
Charles L. McMahon, Inc. (Administration Office)	6,000.00		
Hugh M. O'Neill	5,000.00		
Sollitt Construction Company, Inc.	5,000.00		
John C. Tully	6,000.00		
Thomas H. Zosky (Dark Room, Reading Room)	6,800.00		
Gifts under $5,000	334,140.36	484,365.36	
Other		4,273.50	
TOTAL			$1,238,638.86

II. SPECIAL FUNDS AND RESTRICTED GIFTS

The James M. Haggar Fund (this fund now totals $47,138.27)		7,000.00	
The Karl E. Koch Fund (this fund now totals $61,825.15)		6,800.00	
The Ernest M. Morris Foundation (this fund now totals $291,033.68)		78,500.00	
The I. A. O'Shaughnessy Fine Arts Foundation (this fund now totals $542,512.38)		100,000.00	
College of Arts and Letters			
The Rockefeller Foundation (to further the study of International Relations, payment to be made over a three-year period)	69,000.00		
Other	1,130.00	70,130.00	
College of Commerce		350.00	
College of Engineering		2,550.00	
College of Law			
Alvin A. Gould (to sponsor the Third Natural Law Institute, and establish the Natural Law Library)	4,350.00		
Other	500.00	4,850.00	
Endowment Funds		1,000.00	
Laboratories of Bacteriology (LOBUND)			
Companions of the Forest of America	1,674.00		
Damon Runyon Cancer Fund (to support basic work with germ-free animals as a biological tool for cancer studies)	25,000.00		
John P. Wagner	2,500.00		
Others	100.00	29,274.00	
Liturgical School			
Michael P. Grace Trust (to foster study and appreciation of the liturgy of the Roman Catholic Church) (this fund now totals $7,045.37)		10,000.00	
Medieval Institute			
William J. Corbett Fund for the Medieval Library (this fund now totals $74,316.20)	40,000.00		
Michael P. Grace Trust (this fund now totals $83,500.00)	20,000.00		
Other	150.00	60,150.00	
Scholarship Funds (Endowment)			
Anonymous	5,800.00		
O. J. Caron (this fund now totals $32,500.00)	2,500.00		
Mr. and Mrs. John L. Harrigan (this fund now totals $8,500.00)	1,000.00		
John H. Neeson Memorial Scholarship (this fund now totals $6,705.00)	3,410.00		
Notre Dame Club of Cincinnati (this fund now totals $6,000.00)	2,000.00		
Notre Dame Club of Cleveland (total of fund No. 1, $10,000.00) (total of fund No. 2, $1,000.00)	1,000.00		
Thomas W. Pangborn Scholarship (this fund now totals $9,330.00)	5,000.00	20,710.00*	

*Does not include income from previously invested scholarship funds.

# of Notre Dame in 1949

versity of Notre Dame Foundation

Scholarship Funds (Awards)			
Rev. James A. Burns Memorial Scholarships		10,000.00	
Michael P. Grace Trust		1,000.00	
Notre Dame Club of Akron		1,000.00	
Notre Dame Club of Indianapolis		500.00	
Notre Dame Club of Kentucky		3,400.00	
Notre Dame Club of New York		2,000.00	
Notre Dame Club of Rock River Valley		250.00	
Notre Dame Club of St. Joseph Valley		1,860.00	
Notre Dame Club of St. Louis		400.00	
Thomas H. Zosky Scholarship		1,200.00	21,610.00
Student Loan Funds			
Fred J. and Sally Fisher Education Fund		250,000.00	
George E. Sokolsky Student Loan Fund (this fund now totals $1,405.00)		100.00	
Other		1,650.00	251,750.00
Doctor Albert Zahm's "Collected Papers"			15,000.00
Other			6,228.81
TOTAL			685,902.81
TOTAL, GIFTS FOR BUILDING PURPOSES, SPECIAL FUNDS AND RESTRICTED GIFTS (8,675 DONORS)			1,924,541.67

III. RESEARCH FELLOWSHIPS AND GRANTS

Research Fellowships (Current Gifts)			
American Cyanamid Company (Chemistry)		1,500.00	
Coca Cola Company (Chemistry)		3,200.00	
Central Soya Bean Co. (Chemistry)		1,200.00	
DuPont Industrial Grant (Chemistry)		2,800.00	
International Nickel Company (Physics)		2,500.00	
Eli Lilly Company (Chemistry)		15,000.00	
Kimberly Clark Corp. (Political Science)		1,500.00	
Mary Young Moore (Engineering)		600.00	
Smith, Kline & French (Chemistry)		2,000.00	
Socony Vacuum Oil Company (Chemistry)		2,000.00	
Union Carbide & Carbon Co. (Metallurgy)		2,000.00	34,300.00
Research Grants, Government			
Chemical Warfare Service		3,349.52	
National Advisory Commission (Aeronautics)		7,225.00	
National Advisory Commission (Metallurgy)		24,100.00	
National Institute of Health		1,741.98	
National Institute of Health (for Cancer Research)		7,198.64	
U. S. Navy Department (Laboratories of Bacteriology)		118,911.33	
U. S. Navy Department (Chemistry)		57,002.06	
U. S. Navy Department (Metallurgy)		17,119.83	
U. S. Navy Department (Physics)		74,928.78	
Other		815.30	312,392.44
Research Grants, Industry			
Bureau of Economic Research (Economics)		2,177.60	
General Tire Company (Chemistry)		7,500.00	
Ivano, Inc. (Chemical Engineering)		7,343.93	
Kellogg Company (Laboratory of Bacteriology)		3,600.00	
Olin Industries, Inc. (Chemistry)		12,500.00	
Outdoor Advertising Agencies (Commerce)		350.00	
Research Corp. of America (Physics)		7,000.00	
Sinclair Refining Co. (Chemistry)		15,000.00	
Utilities Research Commission (Engineering Mechanics)		5,141.73	60,613.26
TOTAL			$407,305.70

In addition to the above gifts and grants-in-aid, the University of Notre Dame gratefully acknowledges the many benefactions to its Libraries, Archives and Art Gallery, and to its various Colleges and Departments. In particular does it wish to acknowledge receipt of the following:

For the College of Engineering, a 10 KW Generator donated by James and Robert Hamilton. Value $10,000.00
For the Department of Physics, an Electron Microscope donated by the Radio Corporation of America. Value 15,000.00
For the Radiation Chemistry Project, a 2,000,000-volt Electrostatic Generator furnished by the Atomic Energy Commission. Value 59,800.00

THE LONG RANGE NEEDS OF NOTRE DAME

as previously outlined in

"The Substance of Things Hoped For"

THE SCIENCE BUILDING

A NOTRE DAME INN

AN AUDITORIUM

A LIBRARY

A NEW ADMINISTRATION BUILDING

A GRADUATE RESIDENCE HALL

THREE RESIDENCE HALLS

A UNION BUILDING

A MAINTENANCE BUILDING

A LIBERAL ARTS BUILDING

BACTERIOLOGICAL LABORATORIES

A PRIESTS' RESIDENCE HALL

ENDOWMENT FOR

Salaries of Research Teachers
Graduate Professorships
Visiting Professors and Lecturers

SPECIAL FUNDS

Library Maintenance (new books)
Support of learned publications

STUDENT AID FUNDS

Scholarships for talented and needy undergraduates
Scholarships and fellowships in the Graduate School
Post-doctoral aids

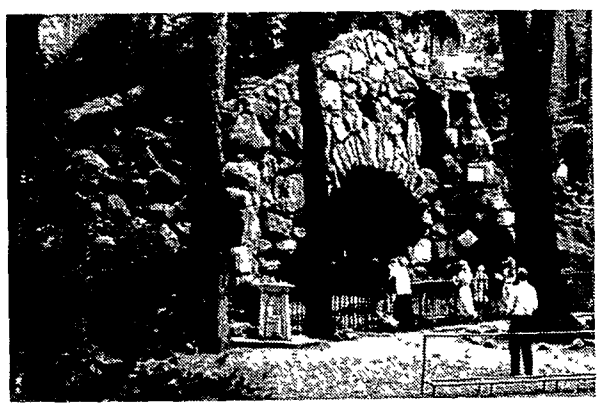
UNRESTRICTED ENDOWMENT

To improve Notre Dame's present position as one of the least endowed major universities

nod and Money Enroll at Notre Dame

Rev. James A. Burns (1919-1922) Turns the Analytical Eye of the Educator on the Needs of a University; the Jubilee and the First World War Have Changed Many Campus Concepts

dents, but removed an institution that, however colorful and profitable it may have seemed, had long been a shackle on the rise of academic standards and the development of a University atmosphere.



The Grotto---A Gift

Father Burns had trained many priests of the Congregation in the Holy Cross seminaries. He was determined to produce a religious leadership in education, and had directed many men into fields of interest that later paid rich dividends in scholarship.

It was in the first year of his presidency that the present College structure of the University was instituted for Arts and Letters, Science, Engineering and Law. The College of Commerce was established shortly thereafter. Deans and department heads took the positions that have been so vital in subsequent development.

Postwar enrollment was crowding the campus, and by 1921 had a student overflow living off the campus that was approaching in number the campus resident group. In the rich and effective tradition of campus life and training, the situation was a deplorable one.

Combined with overcrowded conditions, the low faculty salary scale, that was being aggravated as new laymen were necessary to accommodate the increasing numbers of students, disturbed Father Burns. His appeal for help fell on the listening ears of the General Education Board, which promised $250,000, and the Carnegie Foundation, which offered $75,000, if Notre Dame itself could raise $750,000 from its friends.

Father Burns had cut a broad and modern pattern for Notre Dame. He was quick to realize that in the new order this pattern would have to be implemented by financial aid from outside the University, itself a departure from

College of Engineering---A Gift

the long tradition of economic independence.

To his credit belongs the significant organization of a group of outstanding business and industrial leaders in the Associate Board of Lay Trustees, established in 1920 to counsel Notre Dame on investments.

And to his lasting glory belongs the decision to seek for a two million dollar fund, $1,000,000 for endowment, and $1,000,000 for building, the only major financial effort made by the University during its first 100 years.

So deep was Father Burns' appreciation of the need for material resources to make possible the progress of his envisioned pattern, and so sincere was his willingness to make any sacrifice to further this progress, that in 1922, at the end of his first three-year term as president, he declined re-election and asked to be permitted to head the work of fund-raising which he had instituted.

It is to his priestliness, to his dignity, to his integrity, to his vision, and to his devotion to Catholic education, that Notre Dame owes much of the organization that in the last thirty years has brought many of the richest dreams of Father Burns to reality.

Whether it is the mechanics of academic organization, or in the sound finance program, in the dignity of the faculty, or in the rich overtones of a great University, the work of Father Burns is manifest. Father Burns died in 1940 and is buried on the Notre Dame campus. 'If you seek his monument, look about you.'

Breen-Phillips Hall---A Gift

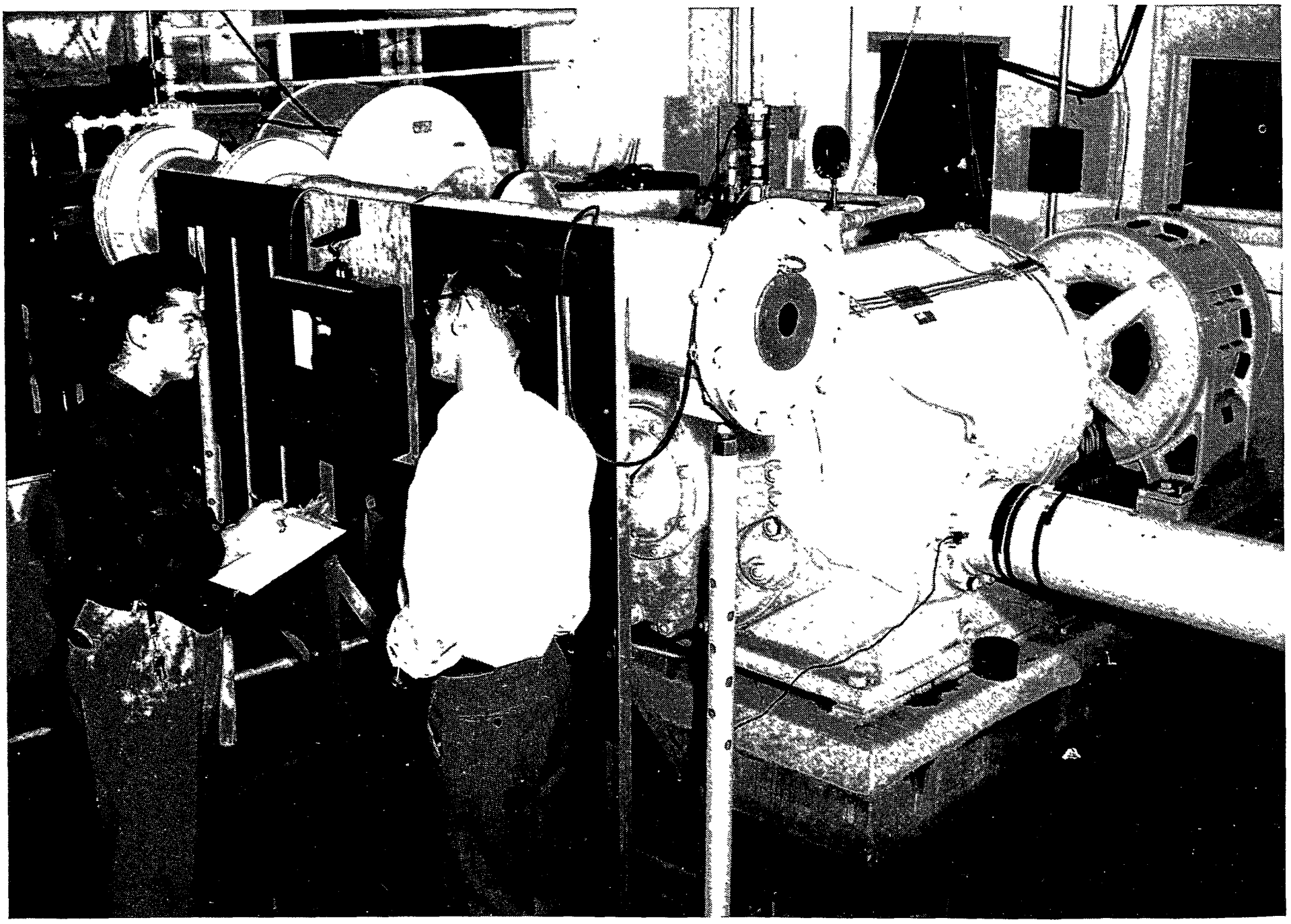
Supersonic Speedway

Test Program in Supersonics Is Being Conducted by Department of Aeronautical Engineering at Notre Dame

By VINCENT GODDARD

The author received a B.S. degree in Physics from College of the Holy Cross in 1943. Massachusetts Institute of Technology awarded a B.S. degree in Aeronautical Engineering to Mr. Goddard in 1947. He is now an instructor in the Department of Aeronautical Engineering at Notre Dame, and is a technical member of the Institute of Aeronautical Sciences. Mr. Goddard formerly resided at Uxbridge, Mass.

Compressor unit *for the supersonic tunnel is inspected by Mr. Goddard (r) and David Benepe, teaching fellow, in the Aeronautical Engineering Department.*



DURING the past decade much has been accomplished, technologically, in the field of supersonics. Much more remains, especially in fundamental research. Thus it is, that problems, associated with bodies traveling through the air at speeds exceeding the speed of sound, have become a major interest in the science of Aeronautics.

To the aeronautical engineer these supersonic problems are relatively new. Yet, somewhere around the turn of the century, two men, Mach and de Laval made significant contributions to the study of supersonics. In the field of ballistics, one of the few places where high speed problems were encountered at that time, Mach noted the importance of the ratio of the velocity of the body traveling in air to the velocity of sound in that air. *This ratio has become known as Mach Number.* In the study of flow through channels de Laval discovered that speeds in excess of sound were encountered in the divergent section of converging, diverging nozzles. This type of nozzle is appropriately called a de Laval nozzle.

The aeronautical engineer, for convenience and simplicity prefers to have the bodies with which he is dealing remain stationary and force air past them. It is this preference that has fostered the birth of wind tunnels. It is the de Laval nozzle in which the air flows at supersonic speeds that has become the present supersonic wind tunnel for the aeronautical engineer. It is the Mach Number that is used in describing in part the capability of the supersonic tunnel.

The University of Notre Dame, being conscious of the importance of supersonics to the science of aeronautics and of its interest to the aeronautical engineer, purchased during the Summer of 1947, from War Surplus, part of the equipment necessary for the construction of a supersonic wind tunnel. This equipment consisted mainly of six vacuum pumps and six electric motors necessary to drive these pumps. With this equipment it is planned to construct a supersonic wind tunnel at the University having a Mach Number of 1.8. The cost, in addition to that already spent, will be approximately $100,000.

The building in which the Aeronautical Engineering Department is now located will be inadequate to house the proposed tunnel. The vibration produced by the motors and pumps is enormous, requiring a building with a foundation quite different from the present one. Furthermore in supersonic flow where shock waves are encountered, it is possible to view and photograph these waves by three optical methods. One of these methods is comparable to the phenomenon by which we see heat waves rise from a hot pavement. The minimum requirement for successful operation is that all light, extraneous to that intentionally passed through the region under investigation, be removed. Such requirements mean that the building must be constructed in such a manner that it will permit darkening of the interior. This in turn will require the installation of a ventilating system. Thus it is of necessity that the housing of the proposed Mach 1.8 tunnel be one of a permanent nature.

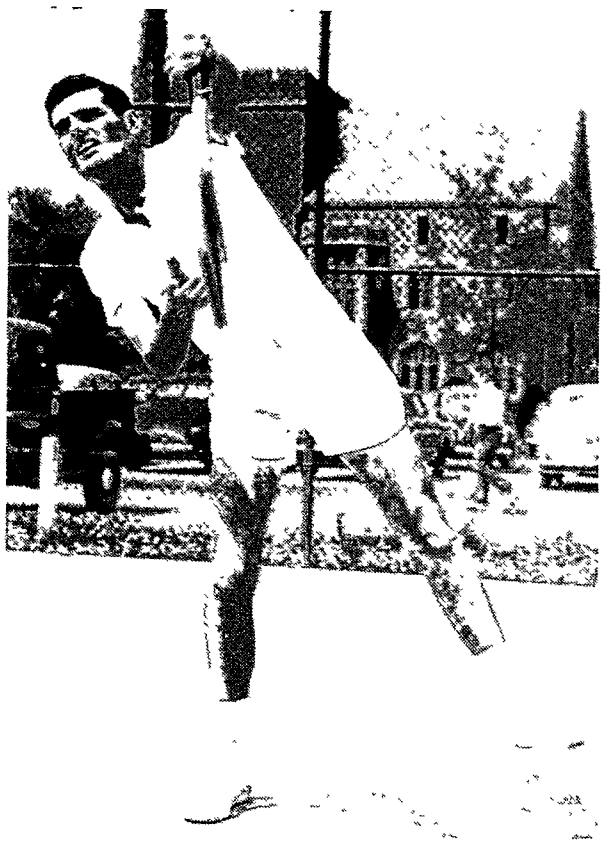
Pilot nozzle *is being designed by the author (seated) and Robert S. Eikenberry, Associate Professor of Aeronautical Engineering. In the present-day era of jet propelled machines, the study of high speeds has become an important research subject for the engineer.*

A test program has been set up and begun. As a result of the first phase of the program, where the characteristics of the pumps and motors were determined, design of a pilot supersonic nozzle has been completed and actual construction is in process at the present time. It is anticipated that the pilot nozzle will be completed by summer 1950 if not before.

This pilot tunnel will have a Mach Number of 1.5 and a cross sectional test area of 6.25 square inches as compared to the proposed tunnel of Mach Number 1.8 and test area of 36 square inches. As the first phase of the test program was a guide to the design of the pilot tunnel, so will the pilot tunnel serve as a guide to the design of the Mach 1.8 tunnel. Hence the name of pilot tunnel. The pilot tunnel will also provide the Department of Aeronautical Engineering with a small supersonic tunnel until the funds necessary for the construction of the Mach 1.8 tunnel are available.

It is planned by the department to use the pilot tunnel for undergraduate instruction and demonstration. For the graduate student, it will provide ample opportunity for research of a fundamental nature in the realm of supersonics. This will be an important advance in the field of education. For throughout the country and abroad, all existing supersonic tunnels are sponsored either by the government or industry. As a consequence only advance research and technological work are carried out in these tunnels. To the undergraduate student these tunnels are entirely unavailable and while the graduate student may be employed under either a government or industrial contract, the tunnel is still unavailable to him for fundamental research. To avoid this situation at Notre Dame it is desired that a supersonic wind tunnel be constructed which is readily available for independent fundamental research and undergraduate study.

Sports for All Irishmen



Tennis *is especially popular during Fall tourney.*

By Ralph H. Wright

The author received an A.B. degree from Notre Dame at the January commencement exercises, having majored in Journalism. His home is in Elyria, O.

Handball *competition is keen on ND campus.*

NOTED for the spirit with which they rally behind great Fighting Irish football teams, Notre Dame students show just as much enthusiasm when *they* participate in various non-varsity sports on campus. Thousands of subway alumni have evinced interest in Notre Dame's national championship teams but few fans know of a regular 12-team interhall football league, a 36-team bowling loop, an elaborate charity boxing tournament and many other competitive sports on the non-varsity level.

The center of this widespread campus sports program is the Rockne Memorial (familiarly called the "Rock" by students), and the chief organizers are members of the Department of Physical Education under Professor John A. Scannell. However, several sports were started by students themselves.

Last November 20, on a cold Sunday afternoon, a large crowd of spectators lined old Cartier Field to watch Walsh Hall defeat Farley Hall, 27-0, for the interhall football championship. Every year the champions of the campus Eastern and Western divisions meet in the final game, usually played in the big stadium or on Cartier. This is the culmination of two and a half months of regulation football with all the trimmings.

The interhall teams start practicing as soon as school begins each fall. They used to draw cast-off varsity equipment, but this year everything was new—even the shoes. Physical education majors, often ex-varsity players, coach the teams. Open to anyone except those with varsity experience, the squads include many high school flashes as well as beginners. They practice five times a week and take the game seriously.

Most of the teams are copies (in style and ideas, at least) of the big Notre Dame eleven. Practically all of them use the T-formation and some have even adopted Coach Frank Leahy's new "television huddle". But the coaches have some ideas of their own; besides the single and double wings, they occasionally come up with some concoctions never seen anywhere before.

The games are regulation even to the officials who dress up in the usual striped uniforms. Sometimes, before the big games, the boys in the hall actually have pep rallies at which players and coaches say a few words. And they've been known to appoint a few cheerleaders and figure out a yell or two for the cause.

Despite the spirit of the eager freshmen, the senior halls often have the tougher teams. The service vets have been sparkplugs in most of the postwar interhall power-houses.

The football league is the most colorful of the non-varsity sports, and probably unique in the whole country. However, the other phases of this sports program are active, too.

While the rough-and-rugged football players eat dust, the boys who prefer to play the touch variety of the grid game also have their fun. Last fall, Sorin Hall won a touch football tourney that extended into December.

Meanwhile, a volleyball league was going at top speed. The inclement weather didn't keep the footballers out of action and so the volleyball enthusiasts didn't give up either. When the snows came, they left the gridders out in the cold and went inside the Rock to finish their schedule. This title went to a bunch of electrical engineers.

Other fall sports include baseball and soccer. The former usually suffers from the weather while soccer is handicapped by a lack of students with know-how. The many Latin-American students are adept at the game, though, and they have some big battles with the phy-ed majors. Sometimes, the two outfits combine into one team and meet other universities in unofficial matches.

The number and variety of sports being played every fall makes it tough for the all-around athletes to get in on everything. A couple of years ago, one student created quite a bit of conversation as he strolled across the interhall athletic fields. He was dressed in gym shorts, wore football shoes and had a tennis racket under his arm. It seems the fellow played for both the baseball and football teams in his hall and was enroute to participate in the University's tennis tourney.

There are tennis and golf tournaments each fall, and they differ from the other non-varsity sports in at least one respect — they serve as feeders for the varsity teams. Tennis Coach Walter

Langford runs the net tourney and never fails to pick up a tennis prospect or two. Rev. George Holderith, C.S.C., golf tutor, has his varsity golfers in the school tournament, but sometimes an unknown comes through to win. If this happens, the boy is sure to be a candidate for the varsity when spring practice begins.

Before the fall sports program is completed, some fellows spend their time sharpening up their shooting eyes for interhall basketball play. Notre Dame carries on the Indiana tradition of Hoosier hysteria in fine style. Each year, the phy-ed department operates three leagues—one each for clubs, halls and independents. The winners in each division meet in the championship play-off held in the fieldhouse.

Handball, featured by a big intramural tournament, ranks second to basketball during the winter. The courts in Rockne Memorial are often not enough to accommodate all desiring to play.

Springtime brings baseball, of course. A few boys already signed by major league clubs participate so the league is pretty fast. Softball lures more participants than does baseball and is divided into a club league and an interhall loop. They try interhall tennis, too, but most of the netters prefer playing at their leisure.

Two popular springtime sports—sailing and bowling—were started by students.

A group interested in sailing introduced that sport to Notre Dame two years ago. They didn't have boats or a place to practice, but they had the desire and that proved to be enough. Entering several meets, they showed well and finally won University sanction.

Bowling, a winter as well as a spring sport, at Notre Dame, now in its third year, has become so successful that student officials can't find enough alleys in town to accommodate all the clubs that want to roll. The Kampus Keglers is a league composed of 36 teams—a result of student initiative in organizing various interested groups.

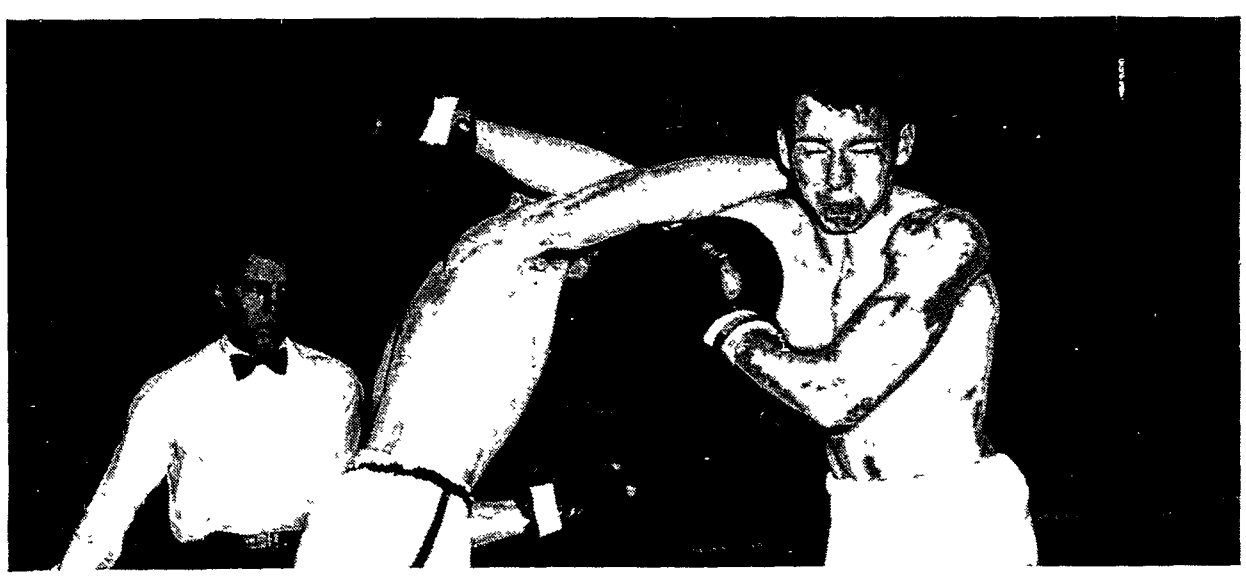
Last winter and spring, the Kampus Keglers competed in an intercollegiate bowling league, besides meeting other midwestern colleges on an independent basis. The bowlers finish each season with a sumptuous banquet where team and individual trophies are awarded.

The largest fieldhouse crowds of the year watch the Bengal Bouts, the annual University boxing championships. All profits for this affair go to the Bengal missions in India. The fighters, who begin training a couple of months before the bouts, are instructed by Dominick

Bowling *enjoys tremendous student support with a 36-team league called the Kampus Keglers.*

Softball, *played on Badin Bog, lures more participants than baseball and is divided into two leagues.*

Bengal Bouts *donates proceeds to missions in India and provides fistic entertainment for hundreds of fans.*



Napolitano, an Associate Professor in the Department of Physical Education. He is the head man in the interhall football league, too.

The Bengal Bouts resemble the Golden Gloves in that they never fail to furnish some fine boxing as well as plenty of laughs and thrills. Napolitano's coaching, a few good fighters, a perfect no-injury record and great campus enthusiasm combine to make this tournament outstanding.

As the varsity sports take the spotlight from the interhall leagues, the interhall affairs in turn take attention from the many sports that have little organization.

Swimming is popular the year around, but it has no competition except for one yearly swim meet. Other sports that have their fans include ping-pong, squash, skating and tumbling.

The most recently constructed athletic structure is a new skating rink in back of St. Edward's and Zahm halls. The skaters already contemplate interhall hockey and no one will be surprised if they have that on the sports agenda soon.

Fellowship Aid Given 255 Graduate Students

A total of 255 students, more than one-half of the graduate enrollment, currently are on the roster of appointments of the Graduate School at the University of Notre Dame, according to an announcement by the Rev. Philip S. Moore, C.S.C., Dean of the Notre Dame Graduate School.

Father Moore, in making the announcement, pointed out that in terms of dollars these appointments amount to approximately $120,000 for the academic semester, or nearly a quarter of a million dollars for the schoolyear.

Of the total number of appointments, according to Father Moore, 131 are Teaching Fellowships. The graduate teaching fellows assist in the undergraduate instruction in the several departments.

Forty-two are appointments to research on government scientific programs at Notre Dame. These forty-two do not include the six students at Notre Dame who hold fellowships from the Atomic Energy Commission.

Others include endowed and industrial fellowships, research and technical assistantships, as well as grants in aid and employment services.

Professor John F. Nims Writes Book of Poetry

John Frederick Nims, associate professor of English at Notre Dame, is the author of *A Fountain in Kentucky,* a book of poems just published by William Sloane Associates, New York.

The Iron Pastoral, another book of poetry by Professor Nims, was published three years ago. In 1944, his works were included in a book called *Five Young American Poets,* among whom was Tennessee Williams. Before he received his Ph.D. from the University of Chicago, Professor Nims won the university's Billings Prize for Poetry for two successive years.

N.D. Student Awarded 1950 Rhodes Scholarship

Herman Hardy Hamilton, Jr., a senior at the University of Notre Dame from Montgomery, Ala., has been awarded a 1950 Rhodes Scholarship, according to an announcement from the Selection Committee of the Rhodes Scholarship Trust.

Hamilton, who entered Notre Dame in 1946 as the Meehan Award Scholar from Alabama, will graduate this June with a bachelor of arts degree in political science, with magna cum laude honors. In October, he will enter Oxford University, England, where he plans to study jurisprudence.

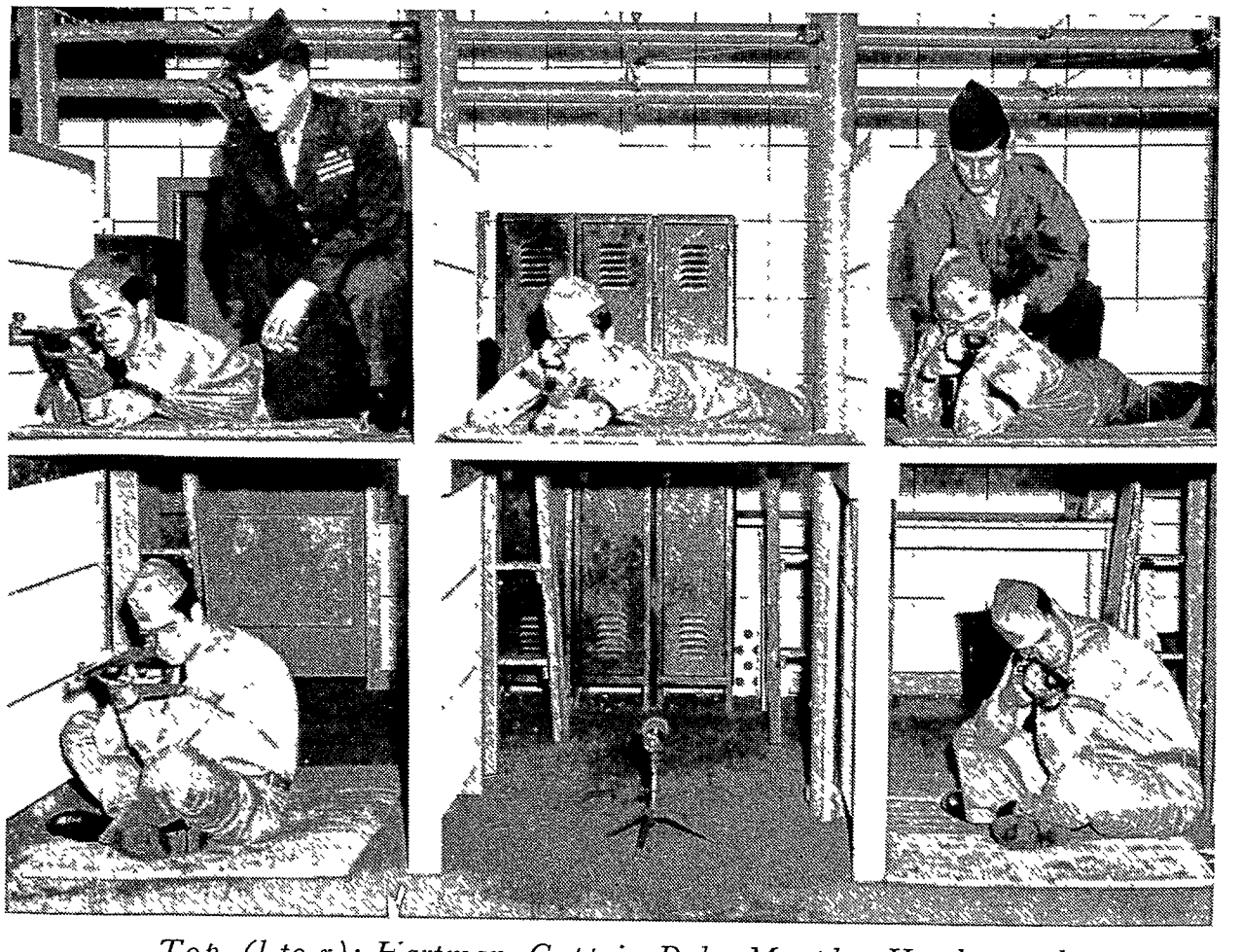
Notre Dame NROTC National Rifle Champs

The Fighting Irish of Notre Dame — famed for "bullet passes" during the football season — seem to be just as effective when they switch to real ammunition in the annual nationwide ROTC rifle contests.

For the second year in a row, the Naval Reserve Officers Training Corps unit at the University of Notre Dame has placed first in the William Randolph Hearst Naval ROTC Rifle Competition. And for the second time in as many years, Notre Dame junior, Donal J. Murphy, of Hawthorne, N. J., has topped the field in individual marksmanship and led the team to victory.

Firing a splintering 924 out of 1000, the Irish quintet nosed out the University of Washington by three points to retain the national title. Besides Murphy, the squad of Notre Dame riflemen included James W. Hartman, of Vanderlip, W. Va.; Francis G. Brickson, of San Antonio, Texas; William K. Hayden III, of Highland Park, Mich., and Wayne A. Six, of Quincy, Ill.

The 1949 and 1950 national champs were coached by Capt. John M. Daly, USMC, who was assisted by S/Sgt. James Sova, USMC.



Top, (l to r): Hartman, Captain Daly, Murphy, Hayden and Sgt. Sova; bottom, (l to r): Six, Brickson.

EVERYTHING UNDER THE SUN

(Continued from Page 7)

full-time interpreters but I, for several reasons, prefer to pick them up, here and there, whenever I need them.

My first interpreter, my companion in the telephone booth, was Walter. He was a medical student, had learned English in high school and knew less than I did about German politics.

Walter had lunch with me twice and when I left anything on the plate he would eat it, saying, "We will not give it back."

The Bonn Chamber of Commerce gave us two sets of literature, one for Walter, one for me. The two sets weighed about eight pounds and Walter put them in his brief case. Twice I took one set out of the case, explaining that I wouldn't need it because I could not read German. Every time I threw the brochures and pamphlets away Walter would pick them up and put them back in his brief case. "We will not give them back," he would say.

Most of the interpreters have learned English either in school or in prisoner of war camps. The former are excellent on such sentences as "I am going to see my aunt's garden" and "My aunt will let me pick flowers" but such sentences, of course, are seldom needed. The PW's know slang and comic book dialogue but are lost when it comes to translating terms used in German politics.

Two experiences I will never forget. While doing a feature story on the Goethe Haus in Frankfurt my interpreter translated "chimney" as "the hole through which smoke goes." On another occassion I told an interpreter to ask the subject a short question, one that required only a "yes" or "no" answer. The interpreter jabbered away for several minutes. Then the subject talked for at least four minutes. Turning to me the interpreter said somewhat triumphantly, "Yes!" I have often wondered what took them so long.

My most memorable, and frustrating, experience by far concerns the broadcast of the Notre Dame-Southern Methodist football game. The broadcast was carried in Germany by the American Armed Forces Network.

With Notre Dame leading by only seven points, with two minutes yet to play, and with that man Kyle Rote still running like a wild mustang, the army station cut off the broadcast, saying, "We interrupt the broadcast of the football game to bring you a review of the week's local news. At midnight we go off the air until 6 Sunday morning."

It was then 11:55 P. M. Saturday night. I didn't learn what the final score was until 2:30 A. M. Sunday morning when a friend, a graduate of Southern Methodist, by the way, monitored a short wave broadcast from New York.

Foreign correspondents have to put up with some mighty strange things.

SOVIET SYMPOSIUM

(Continued from Page 11)

cent Soviet concessions to the Russian Orthodox Church. The government is still basically anti-religious, he explained but for reasons of expediency it now is waging war against religion by means of patient enlightenment of the people on the basis of natural and social sciences.

"It is obvious that a compromise has been reached between the Communist government — which remains atheist — and the Russian Orthodox Church, which has changed nothing of its dogma and rites, but which is compelled to utter statements in line with the government's foreign policy."

Among other denominations in Russia, the Armenian Church and the Baptists have gained advantages similar to those of the Orthodox church, Dr. Timasheff said. The other Protestant sects and the Buddhists are less privileged, he explained, and since 1949 the Jews and Mohammedans have come under new attacks from the state.

"At the very bottom one finds the Catholics," he said. "They are granted no right of public worship in the USSR except in Lithuania, although even there the episcopate has been driven underground."

Final speaker on the symposium was Father Francis Dvornik of Harvard University. He went one step farther in attempting to demonstrate the historical basis for Church-State struggles within the Iron Curtain countries.

He traced the center of difficulty to the origin of the King-Priest theory, which granted the ruling monarch an important share in the administration of the Church. "In liquidating the last remains of the Uniate Church . . . the Soviet regime simply followed in the steps of the Tsars."

Father Dvornik said it was clear that the compromise in Czechoslovakia was foredoomed to failure.

"It was clear to any objective observer and student of Communist methods, that the Vatican's hopes were in vain, and that the Communist regime would in due course be established in Czechoslovakia as it was in other countries under the Soviet influence."

But some hope for the survival of religion under the Communist persecution was advanced by Father Dvornik, who praised the living faith of the simple people. In conclusion, he urged a prayer to "help the simple faithful beyond the Iron Curtain to bear their crosses patiently, and to inspire their religious leaders to find the right way in a most difficult situation."

Irving Berlin *presents $25,000 check to Professor James A. Reyniers, Director of the Laboratories of Bacteriology at Notre Dame, from the Damon Runyon Memorial Cancer Fund. This gift will be used for cancer research.*

(Young) MEN WORKING

Notre Dame Helps Many Students to Achieve Education Through Employment on Campus

By Lawrence Flaherty

"THE price we pay for knowledge is working our way through college!"

If this refrain were echoed by all the Notre Dame students to whom it applies, the 942 voices raised in chorus would well attest to a mighty job being performed by the Student Employment Service at Notre Dame.

Under the capable supervision of Mrs. Inez Van Scoik, hundreds of applications for part-time jobs are read, noted and filed from under-graduate and graduate students who signify their desire for higher education but their inability to meet the financial obligations on a cash and carry basis.

Not every applicant is assured of assistance, however. The most urgent cases rate priority for the limited number of campus jobs available. Consideration is also given to the applicants' scholastic and disciplinary records. Students previously employed must show a satisfactory job record.

Naturally, students indicate their job preference but more often than not this detail presents complications. The campus dining hall employs several score students; there is but one official newspaper deliveryman at Notre Dame.

"Odds are that applicants for a newsman's delivery job are apt to find themselves washing dishes," smiles Mrs. Van Scoik.

The University of Notre Dame furnishes part-time employment to nearly one-fifth of its entire student body at a total cost of approximately $337,480. Net revenue of $155,000 from all athletics, in last fiscal year, was less than half of amount Notre Dame expends to aid needy students.

The author received an A.B. degree in Journalism from Notre Dame at the mid-year commencement exercises. He entered the University of Notre Dame after a three-year hitch in the U. S. Army Air Force during World War II. Mr. Flaherty, who now resides in Toledo, O., is an expert bridge player.

A few specialist jobs—technicians in the Science labs, for instance—calls for an exercise of another kind of ingenuity. Financial need and personal preference will probably be less important a factor than ability in filling such a position.

The average work week for the Notre Dame student employee is 12 hours. That cuts a sizable piece out of available time for studies. It also calls for added mental discipline if a 77% scholastic average is to be maintained—one of the conditions that goes with any student job on the Notre Dame campus.

In an unofficial capacity, Mrs. Van Scoik has obtained many positions for students through contact with downtown South Bend industry. Studebaker assembly-line workers, clothing store salesmen — from their ranks too, a goodly portion of tenors have as their theme, "We are working our way through college!"

Notre Dame Foundation *addressograph plates are kept current by student part-time assistants.*

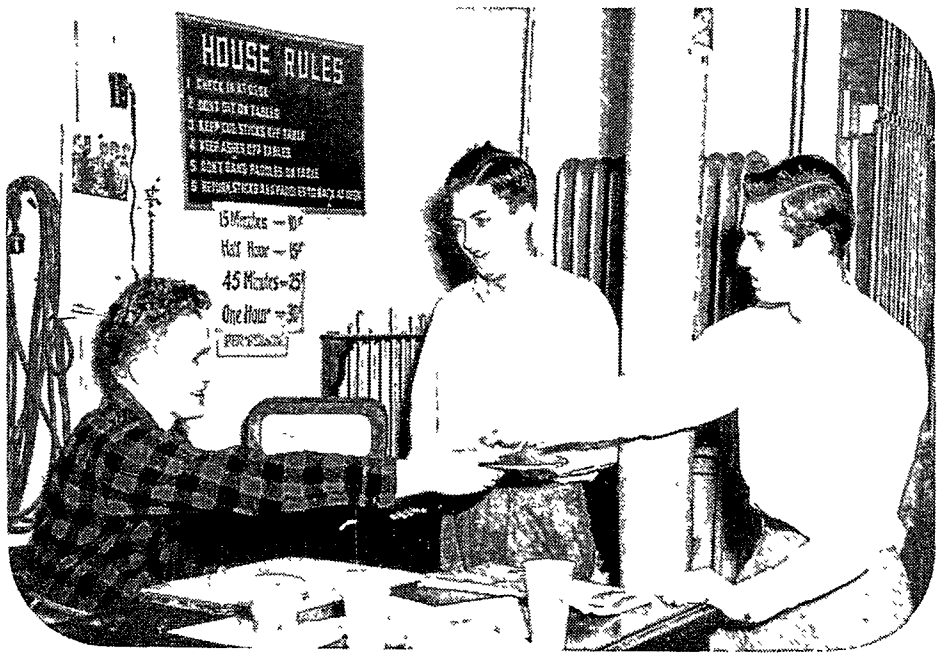
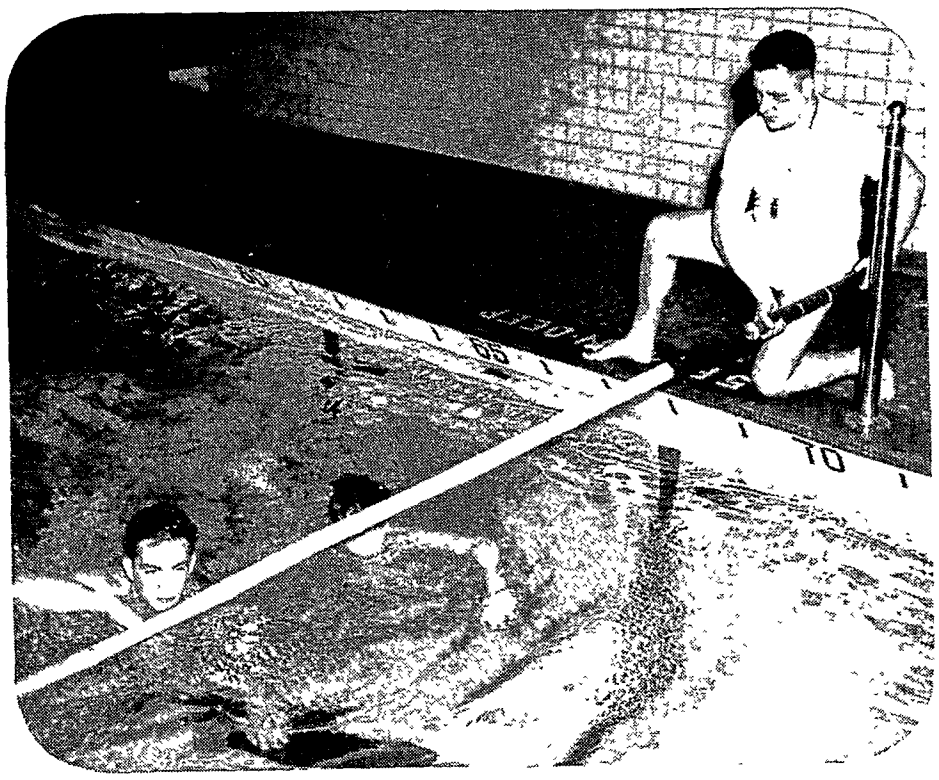


Table Tennis *paddles are given to would-be champs by student employe in recreation room located on campus.*



Student Life-Guard *is employed in the Rockne Memorial swimming pool.*

Library *hours are busy periods for those working as well as those studying.*

Only one newsboy, *or newsman, delivers dailies to administrative offices, student infirmary and other buildings on 1700-acre campus.*

Science Museum, *with its collection of minerals, ores, geological specimens, and rare fossil remains employs student assistants on staff.*

I. B. M machine *is operated by student working in the University's tabulating office. This is one of many unique jobs available to undergrads.*

DICE, STUD POKER AND MATH

(Continued from Page 5)

test-determined values for the different letters in his equation.

Nuclear physicists can use the formulas to determine whether or not a "chain reaction" will last long enough to produce an atomic explosion. Sociologists can use it to study the spread of rumors. Applications are almost limitless.

Some of the more abstract research investigations now being carried on in the department are of interest to the non-scientist. Dr. Ky Fan, for instance, is studying the intricate problems of a subject called "topology."

Topology is a whole branch of study based on the principle that common geometric figures — such as lines, cubes, and spheres — can be stretched out of shape like rubber. Topology limits itself to a consideration of those characteristics that don't change during this stretching . . . like the fact that the sphere will always have an inside and an outside, or that two intersecting lines will always cross each other. Ten years ago, the weird figures used in this study were little more than a basis for amusing scientific parlor tricks; but recent investigation shows that it can be put to real scientific use. Dr. Ky Fan's work revolves about phases of it which are still in the purely theoretical stages.

But if the odd figures of topology (like inner tubes turned inside out, and solid figures with only one side) confuse a non-mathematician, the casual observer is really in for a jolt when he takes a peek at the department's research in algebra and number theory. Because this is one place in the department where two and two don't always add up to four . . . sometimes they make zero!

Work in this field, which is being carried on primarily by Dr. Ross and Father Brown, involves abstract number systems quite different from the one most of us are used to. Far from being a scientific curiosity, modern algebra is of great value in other branches of mathematics and theoretical physics; and number theory, in spite of its highly abstract nature, is indispensable in planning and operating many modern calculating machines.

At any rate, though, the Department of Mathematics has a lot more vitality than the usual picture of dusty books and mystic symbols that springs to mind when the word "mathematics" is mentioned. Besides an outstanding program of research, the department offers an interesting, practical course of study to students who wish to follow mathematics as a career . . . as well as those who will use it only as a supplement to their work in other fields.

And practically the whole range of its accomplishments can be traced to the thoughtful originality of Dr. Arnold Ross and his staff. Dr. Ross has summed up their plan of action in these words:

"We don't do things just because other mathematics departments have been doing the same thing for years. If a traditional program needs overhauling because of modern developments, we don't stand on formality in reforming the ideas of yesterday. We base our courses and methods on the idea that they will be needed today . . . and tomorrow!"

Dignitaries *attending the Natural Law Institute watch unveiling of new Institute plaque: (l to r) Dean Clarence Manion of the College of Law; Professor Edward S. Cronin, speaker, of Princeton University; Father Howard Kenna,* C.S.C., *Vice-President in Charge of Academic Affairs; Alvin A. Gould, sponsor of the Institute, and the Hon. Richard O'Sullivan, former king's counsel of Great Britain, speaker.*

Third Natural Law Institute

A Natural Law Library, believed to be the only one of its kind in the world, was founded at the University of Notre Dame during the third annual Natural Law Institute held recently in the College of Law at Notre Dame.

The Natural Law Library at Notre Dame will be known as the Alvin A. Gould Collection. It will be named after Alvin A. Gould, Cincinnati, O., businessman, founder of the library and sponsor of the 1948 and 1949 Natural Law Institute programs at Notre Dame.

The Gould Collection will consist of a complete and representative group of books and materials on the Natural Law doctrine, and will be accessible to scholars and students of the Natural Law.

Another Lab Sponsored In New Science Building

John H. Fendrich, President of H. Fendrich, Inc., Evansville, Ind., has presented a gift of $10,725 to the University of Notre Dame to cover the cost of the Auxiliary Organic Research Laboratory in the proposed new Science Building at Notre Dame.

The Rev. John J. Cavanaugh, C.S.C., President of Notre Dame, in making the announcement of Mr. Fendrich's gift, said that the new laboratory made possible by Mr. Fendrich's generosity will be a memorial to the late Herrmann and Mary Reitz Fendrich, parents of the Evansville business executive.

The Sherman Collection

Civil War Mementoes Stored in Notre Dame Archives

By Thomas M. McAllister

AN unsigned portrait of Lt. Gen. William Tecumseh Sherman has been added to Notre Dame's growing collection of Shermaniana.

The painting, depicting the General in his late years, is on exhibition in the Wightman Memorial Art Gallery in the Notre Dame Library. The rest of the Sherman collection is in the University Archives, and most has been donated by Miss Eleanor Sherman Fitch, General Sherman's granddaughter, and Mrs. Florence Ewing Steele, both of New York City.

Until a new library is built on the campus, and the present structure is turned into an art gallery and museum, students and visitors to the campus will be unable to view the collection of possessions and mementoes of the famed Civil War commander, since there is no room to exhibit it under present conditions.

Rev. Thomas McAvoy, C.S.C., director of the University Archives, and other members of the library staff are trying to determine the identity of the painter whose work now is in the University's possession. Dr. Maurice Goldblatt, curator of the art gallery, assumes that the hands and face were done by a master and the rest of the portrait, of an inferior quality, by one of his students.

However, it is the part of the collection still in the Archives which would probably be of most interest to the layman. One of Sherman's uniforms, some battered battle flags, the seal of the notorious prisoner-of-war camp at Andersonville, Georgia, where, it is said, one hundred Union prisoners died each day, the key to Appomattox Courthouse, where Grant accepted Lee's surrender, and many other souvenirs of the Civil War are stored in the Archives. Several packages of letters written by the General during the Civil War, some of them still unpublished, are included in the collection.

It is believed that the unpublished letters may throw a new light on the character of a man who was thought to be an embittered, wrathful taskmaster.

Sherman's portrait *is viewed by Father McAvoy.*

Sherman may have been a victim of circumstances; he was very definitely on the "outs" with the Civil War press. He had worked in the South in pre-war days and hesitated to take up arms against his former friends.

The collection of Shermaniana has found its way to Notre Dame because of the close connection between the University and the Sherman family. While the General was at war his wife and four children lived at St. Mary's College in South Bend; Mother Angela, C.S.C., president of St. Mary's at the time, was a cousin of Eleanor Ewing Sherman, the General's wife.

Two of Sherman's sons, Willy and Tommy, attended Notre Dame and his daughter, Minnie, was a student at St. Mary's. An infant son, Charles, died here in December, 1864 and was buried by Father Sorin, C.S.C., founder of Notre Dame. Willy died while visiting his father in Memphis fourteen months before Charles' death.

Tommy later became the Rev. Thomas Sherman, S.J., a renowned missionary. Father Sherman lectured at Notre Dame on several occasions.

Rev. Joseph C. Carrier, C.S.C., one of the founding fathers of Notre Dame's College of Science, aided in forming a friendly bond between Notre Dame and General Sherman. He was a chaplain in the 15th Army Corps, Sherman's wartime command. The general thought highly of Father Carrier and refused to release him when the Congregation provincial requested that the priest be returned to Notre Dame.

General Sherman visited Notre Dame only twice. He spoke at the commencement exercises here June 7, 1865 and returned to speak to the Knights of St. Patrick a decade later, March 17, 1875. On both occasions he denounced anyone and anything that might harm the nation that he loved so much. He referred to the Confederate generals whom he opposed — Johnston, Hood, Beauregard, Hardee and Wheeler — as "traitor generals."

Until the still unpublished letters of William T. Sherman are placed on exhibition—until the new library is built—we will not know how much the great Union commander loved his country and how much he hated those who opposed it.

The author is a senior in the College of Arts and Letters and is majoring in Journalism. He is from Albany, N. Y., and a veteran of three years in the United States Army. Following V-E Day, he was affiliated with the War Crimes Commission in Nurenburg.

Atom Smasher Purchased For Peacetime Research

A new 2,000,000 volt Van de Graaff electrostatic generator, popularly known as an "atom smasher", has been ordered by the Radiation Chemistry Project at the University of Notre Dame from the High Voltage Engineering Corporation of Cambridge, Mass.

The new generator for the Notre Dame project, which is jointly sponsored by Notre Dame and the Atomic Energy Commission, is rated to give a 100 microampere electron beam, or 2,000,000 volt x-rays, dependent upon the target arrangement employed.

A three-unit laboratory will house the new generator. Construction already has begun at Notre Dame on a 20' by 30' concrete room, the walls of which attain a thickness of fifty-two inches at the front. An arrangement of mirrors and viewing tube permits clear observation of the instrument from a separate control room, measuring 20' by 20', without hazard to personnel. Safety devices are such that the experimentors cannot accidentally be in the concrete-enclosed area during use of the generator.

The new construction and installation will make possible an intensification of the work of the Radiation Chemistry Project at Notre Dame. The project is concerned exclusively with fundamental, non-secret investigations of problems, the solutions of which are necessary for development of peaceful potentialities of atomic energy.

Cancer Gift Aids Campus Research Program

A contribution of $1,674 to the cancer research program of the Laboratories of Bacteriology at the University of Notre Dame has been received by Notre Dame from the Companions of the Forest of America.

The Companions of the Forest of America is an organization devoted to the support of hospital care and protection, old age security, and home environment for orphans.

Mrs. Alma C. Clark, supreme financial secretary of the organization, forwarded the contribution to Notre Dame. The organization, with headquarters in New York City, annually sponsors a fund-raising program for a cancer fund.

The University of Notre Dame Foundation, in acknowledging the cancer gift, paid special tribute to groups which are sponsoring basic research in college and university laboratories.

Dooley Appointed Head Of Placement Bureau

The Rev. John J. Cavanaugh, C.S.C., President of the University of Notre Dame, recently announced the appointment of William R. Dooley, Managing Editor of the Notre Dame *Alumnus* and for the past sixteen years Assistant Alumni Secretary at the University, as Placement Director of Notre Dame.

Father Cavanaugh, in making the announcement, said that in a reorganization of the central Placement Bureau at Notre Dame, Mr. Dooley will devote himself entirely to assisting Notre Dame students and alumni with regard to full-time employment. Counseling as the basis of all effective employment aid will be particularly stressed in the new organization.

As Placement Director, cooperating with the Notre Dame faculty, Mr. Dooley will serve as the University's chief representative in maintaining employment contacts with business and industry all over the country. An important part of his work will be to receive the numerous personnel representatives who annually visit the Notre Dame campus to interview members of the senior class regarding employment.

Fulbright Scholarship for Notre Dame Professor

Dr. A. Robert Caponigri, assistant professor of philosophy at the University of Notre Dame, has been selected by the U. S. State Department to receive a Fulbright Research Scholarship for study during 1950 in Italy.

Professor Caponigri's activities abroad will center about Naples, where he intends to use the facilities of the Vico Library to examine the theory of history expressed by Gian Battista Vico, an 18th century Christian philosopher.

Dr. Caponigri will be the first professor to visit Italy under the terms of the act.

Air R.O.T.C. Cadets Win Chicago Tribune Awards

Two cadets in the Air R.O.T.C. unit at the University of Notre Dame have been awarded *Chicago Tribune* Medals for excellence in military achievement, scholastic attainment and character.

Recipients of the medals for the Fall semester of the 1949-50 schoolyear at Notre Dame are William A. Whiteside, Jr., of Philadelphia, Pa., and John E. Petitbon, of New Orleans, La.

President Names Foundation Committee

Rev. John J. Cavanaugh, C.S.C., has appointed an Executive Committee to administer the affairs of the University of Notre Dame Foundation under his direction. Frank C. Walker, '09, New York City Foundation Chairman, and chairman of the Committee on Alumni and Public Affairs of the Associate Board of Lay Trustees, will serve as Chairman of the Executive Committee.

Other members of the committee include, left to right, seated, Rev. John H. Murphy, C.S.C., vice-president in charge of public relations at the University; Mr. Walker; Rev. John J. Cavanaugh, C.S.C., president of the University; and Rev. Theodore Hesburgh, C.S.C., executive vice-president.

Standing are John Cackley, Foundation office staff; J. Arthur Haley, director of public relations; James E. Armstrong, alumni secretary and Foundation vice-chairman; John B. Kanaley, Foundation co-chairman in New York City; and Herman Zitt, Foundation office staff.

progress chart

Foundation Begins Program With Successful Results

Notre Dame, Ind.—A total of $551,803 was received in 1947, from alumni and non-alumni friends by the University of Notre Dame Foundation. This amount included $205,790 from 303 non-alumni friends of the University. Notre Dame embarked on a long-range fund-raising program this year to provide financial aid for physical expansion, additional scholarships and improved research facilities.

1947

Notre Dame Receives Gifts Totaling $614,939.42 in 1948

Notre Dame, Ind. — Gifts totaling $614,939.42, representing urgently-needed financial aid in the University's long-range endowment and physical expansion program, were received in 1948 by Notre Dame from alumni and non-alumni friends, according to Rev. John J. Cavanaugh, C.S.C., President of Notre Dame.

The total, according to Father Cavanaugh, is $63,136.42 greater than the amount given to the University in 1947. In addition to the cash gifts, Notre Dame received numerous gifts of equipment, publications, subscriptions and other incidentals valued at thousands of dollars.

Notre Dame alumni gave $451,898.28 of the total amount given to the Foundation of which $280,881.81 was restricted and $171,016.47 was unrestricted, Father Cavanaugh said. Of the $163,041.14 contributed to Notre Dame by friends of the University, $59,789.73 was restricted, and $103,251 was unrestricted.

1948

Fund-Raising Program at ND Achieves All-Time Record

Notre Dame, Ind.—A record number of donors contributed more to the University of Notre Dame in 1949 than in any other year during its history, it was announced recently by the Rev. John J. Cavanaugh, C.S.C., President of Notre Dame.

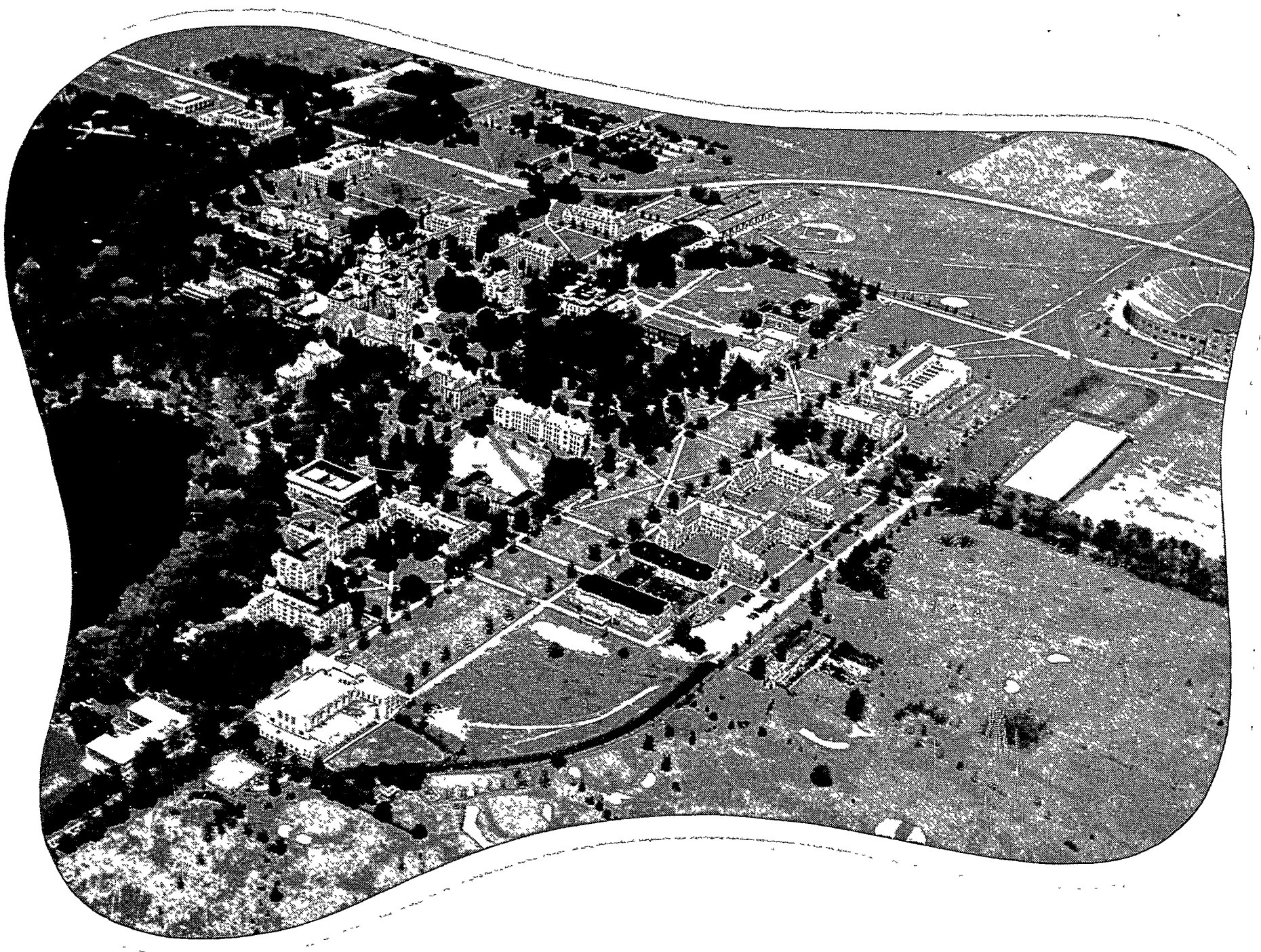
Father Cavanaugh announced that 8,675 donors contributed a total of $1,924,541.67 to the University in 1949 for building and other funds. In addition, Notre Dame received $407,305.70 in Research Fellowships and grants, and gifts of capital equipment valued at $84,800.

The Notre Dame president disclosed that the University Science Building Fund, which was the keynote of the 1949 fund drive, now totals $1,171,546.44. Father Cavanaugh said that another $915,634.64 still is needed to construct and equip the Science Building.

Included among the gifts received during 1949 by Notre Dame were $1,000,000 from Mrs. Fred J. Fisher, for a student dormitory and a revolving student loan fund; $100,000 from the I. A. O'Shaughnessy Fine Arts Foundation; $69,000 from the Rockefeller Foundation for research by the Committee on International Relations at Notre Dame; a 2,000,000-volt atom smasher valued at $59,800 from the Atomic Energy Commission; $40,000 from the William J. Corbett Estate for the Mediaeval Library Fund; $31,000 from the Michael P. Grace Trust for research in the Mediaeval Institute at Notre Dame; $25,000 from the Kresge Foundation for a room in the proposed new Science Building; and $25,000 from the Damon Runyon Cancer Fund for cancer research in the Laboratories of Bacteriology at Notre Dame.

1949

And in 1950 . . . . A NEW SCIENCE BUILDING, through the generous benefactions of alumni and other interested friends, for the training of moral, responsible scientists!



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