That glorious song of old,
From angels bending near the earth,
To touch their harps of gold:
Psalm 96:11 (KJV)

Peace on the earth, good will to men.
From heaven's all glorious King;
The world in solemn stillness lay,
To hear the angels sing.
The last several decades have witnessed an unparalleled growth in our urban areas. Much of this growth, however, has been unplanned and the consequences are seen everywhere. Blighted conditions in the centers of our communities are turning large areas into slums. Surrounding the cities are the rapidly urbanizing fringe areas whose development is taking place in a haphazard and unplanned fashion. One of the major tasks facing our local government today is the intelligent solution of these metropolitan problems.

In addition to the need for intelligent long range planning for future development of our urban areas is the great and pressing need for redevelopment and rehabilitation of many areas of our cities. Programs of urban renewal are being undertaken by more cities throughout the nation. These communities know that only through intelligent programs of planning and urban renewal will they be able to grow and prosper.

Of the many problems standing in the way of intelli-

Architectural Students Study Urban Program of Redevelopment in New Undergraduate Course

By Francesco Montana

CITY Planning

promoting educational leadership
gent planning and rebuilding programs for American communities none is more acute or urgent than the lack of an adequate number of trained planning personnel to carry forward these programs.

The University of Notre Dame true to its long tradition of leadership in many important areas of education has instituted a program in City Planning. This program initially will be on the undergraduate level and will be primarily for architectural students. The program will be under the direction of the Department of Architecture. The course of instruction in City Planning at Notre Dame is designed to equip the architectural graduate with a clear understanding of the problems and practices of city planning and the important role the architect can play in planning and rebuilding urban America.

Those students who wish to continue their studies in planning may go to other universities for graduate work. The undergraduate option will prove an asset to continued study.

The architectural students who elect the City Planning program will be continually reminded that city planning is followed by building and that the planner must visualize his plan in terms of constructed buildings. In other words, plans must be conceived in three dimensions if the plan is to have significance and be realized.

City Planning is one of the most human of the sciences and arts and touches life at many points. The problems involved in the development of land are complex and varied.

No one man can contain within himself all of the varied knowledge and master all of the arts and sciences that are necessary for intelligent city planning.

City Planning must be a collaborative undertaking between men of different training and experience. In such collaboration the architect contributes his imagination, his knowledge of beauty, of proportion and the living and working needs of people.

The author is head of Notre Dame's Department of Architecture and has studied at the Ecole des Beaux Arts in Paris. He received a bachelor's degree from New York University.

In 1936 he received a three-year scholarship to study in France and was awarded academic honors while there. Mr. Montana has been cited for various designs, one being that of an air base on famed Midway Island in the Pacific. He is a member of professional organizations including the American Institute of Architects and the Beaux-Arts Institute of Design. Mr. Montana was named head of the Architecture Department in 1950.

(Left to right)—Professor T. B. Brademas and Professor Montana, head of Architecture Department, observe "city planning model."
A review of the courses offered by the program in City Planning will give a clear indication that the students in the program will have a fine grounding in the profession of City Planning.

In addition to all of the required courses necessary for his training in architecture the student who elects the City Planning option will take the following courses:

**Introduction to City Planning** — a study of the basic concepts, problems, and practices of community planning and a historical review of urban development.

**Public Administration** — an introductory survey of the principles and processes involved in the execution of public policy with emphasis upon local government.

**American City Government** — a detailed study of the organization and functions of municipal government in the United States.

**Real Estate Law** — a study of the law of real estate and its scope, including an analysis of the real estate business in its various phases. A general survey of housing, home ownership, sub-dividing, appraising and management of real estate are discussed.

**City Planning Design** — the problems of physical development of the urban area will be studied and design solutions proposed. Problems will include the design of a civic center, shopping center, and other public facilities. Design solutions for the redevelopment and conservation of slum and blighted areas in the city will be prepared.

**Economic Institutions** — an appreciation of the concepts and analytical tools necessary to understand the function of the market mechanism in guiding economic activity.

**The Community** — a study of the local community, the city, the small town, the rural neighborhood.

**Municipal Engineering** — the engineering aspects of city and community planning. City finances and budgets; traffic requirements; city sanitation; functional recreational facilities; the work of the city engineer and city manager.

**Housing and Urban Renewal** — discussion of public and private housing supply and market, design, finance and legislation. Housing production, redevelopment and community conservation.

These courses of instruction in conjunction with the program in architecture will prepare the student to make a substantial contribution toward the planning of the community.

It should be noted that several of the basic planning courses are opened to upperclassmen from other colleges and departments in the University. Often students of sociology, economics, law, engineering, and public administration find an important and challenging profession in the field of City Planning.

The Department of Architecture’s planning program has already proved of great value to the local communities, by encouraging the development of intelligent planning. A group of the students prepared a plan for the rebuilding of the South Bend central business area which drew considerable discussion from local business and civic leaders. The Department of Architecture in conjunction with the Indiana Society of Architects sponsored a series of lectures on city planning, delivered by professional planners from Detroit, Chicago and Indianapolis. These lectures were open to the public and were well attended by many interested citizens from the South Bend-Mishawaka area.

As the program in City Planning at Notre Dame continues to develop and grow it will prove of increasing value to planning in the local area.

The Department of Architecture is particularly fortunate in that several of its staff members have special training in the field of City Planning. In organizing the City Planning program we have realized the need for practicing professional planners to aid in the instructing for the new program. The Department has been indeed fortunate in having been able to secure the services of Mr. T. B. Brademas, formerly Senior City Planner on the City of Detroit Planning Staff. He received a Bachelor of Architecture degree from the University of Illinois and a Masters in City Planning from the University of Michigan. Mr. Brademas is a member of the American Institute of Planners and currently serves as head of City Planning Associates in Mishawaka, Indiana. In this manner the students not only receive instruction from trained and experienced city planners but are able to get the benefit of current solutions to many actual city planning problems as developed by practicing professionals.

The program in City Planning at Notre Dame will be altered and added to, as experience indicates. The University of Notre Dame by the inauguration of a program in City Planning is demonstrating once again the desire of the University to promote educational leadership in important areas of community life.
Few can question the material growth of America or of Notre Dame. But the physical growth of a person or of a human institution is no guarantee of inner human growth, of mature spiritual perfection, of the kind of fulfillment that alone is important in assessing the true value of a country, a person, or an institution. Physical growth can indeed become a kind of seduction, wherein we assume, from outward appearance, the existence of inner vitality and equal accomplishment in the line of mature interior excellence.

However, the two perfections, physical and spiritual, do not necessarily go together. Nor are they achieved by the same effort, or the same means. Physical growth in an institution is mainly a matter of money, masonry, and mortar. Spiritual perfection in its essence needs none of these. Rather, it begins with the human understanding of an ideal, the consecration of human minds and hearts to a task most worthy of man, but also most difficult, because each newly conquered peak of perfection presents a newer and higher prominence behind it, yet to be climbed. It is much easier to achieve physical growth, as a person or as an institution, and then to call it a day. But this mediocre satisfaction never makes for a great person, or a great institution, because spirit alone vivifies matter and endows it with higher dignity and value.

Some thoughtful people have questioned whether or not the physical growth of America today has been matched by a corresponding development of our spiritual wisdom and moral character. The same question might be asked of Notre Dame, not in a carping spirit of criticism, but in a reflective mood of self-analysis linked to the sincere desire for the greatest possible perfection in the high task committed to us. It is certainly no less true of universities, than of men, that the unexamined life is not worth living.

The inner growth of a university depends in large measure upon the excellence of its faculty. This is much more, however, than the sum total of their individual talents, because a university is a community of scholars working together, not a mere collection of individually good minds, haphazardly and geographically assembled in one place. Now collaborative human effort in a university requires some unity of spirit and ideal, some human understanding and sharing of the great dignity of the endeavor. In the nature of the world we live in, with its often superficial judgments and attitudes, some members of the university community will often receive a larger measure of praise and plaudits for accomplishments that are, in reality, the work of all. Yet, at the heart of the endeavor and in the eyes of God, each member must know that he belongs and is important and vital to the task.

Among other things, the work of Notre Dame highlights one of the great opportunities of the Church today: that of priests and laymen joined together in a common endeavor and committed to a higher wisdom while working effectively for all the perfection that is possible in the things of time. And there is an undefinable spirit of devotion and consecration here that alone can explain what has already been accomplished at Notre Dame and the great things that we yet aspire to achieve.
NOTRE DAME ACHIEVES IMPRESSIVE RECORD IN NATIONAL PROGRAM

The author has been teaching English at the University since 1933. He is also managing editor of the Review of Politics, published at Notre Dame.

Professor O'Malley was graduated from Notre Dame in 1932 and was awarded the Master of Arts degree the following year.

Well known for his wide literary background and masterful classroom technique, Professor O'Malley's classes in literature and creative writing are among the most popular offered by the English department. He is one of three committee members who interview Notre Dame students seeking national fellowships.

By Frank O'Malley

Notre Dame has had — during the past six years — a remarkable number of winners in the competition for the national fellowships which carry immense prestige. Last school year — 1957-58 — the campus was startled by the signal success of Notre Dame seniors in the awards of the Woodrow Wilson Foundation. Eighteen young men, from the Colleges of Arts and Letters, and Science, were elected to a fellowship that regularly encourages the most promising students to do graduate work towards college teaching and university scholarship. In the list of awards, Notre Dame ranked fifth in the nation, preceded only by Columbia, Harvard, Cornell and Princeton. Across the country a thousand fellowships were given — an increase

William B. Griffith, Smithfield, Texas, won three major fellowships for graduate study in competition with thousands of outstanding college seniors throughout the country before he graduated in June, 1958. He received a Fulbright grant, a Woodrow Wilson National Fellowship, and a Danforth Fellowship.

Griffith is no stranger to competition, academic or athletic. While earning a four-year average of 94.52% in Notre Dame's General Program of Liberal Education, he was a member of N. D.'s national championship varsity cross-country team.

over past years made possible by the new and munificent grant of $25,000,000 from the Ford Foundation. However, in the previous five years — with very limited allotments — Notre Dame seniors won twelve of these most coveted awards.

Impressive, too, is Notre Dame's achievement in the Fulbright Scholarship competition. More than seventeen candidates since 1952 have been successful and have had the chance to study and travel all over the world. Likewise, during the past three years, seven Arts and Letters
Eighteen N. D. seniors were awarded Woodrow Wilson Fellowships last June for graduate study during the current school year.

is similar to that of the Danforth: the assistance of students “with serious interest in the religion of their choice to enter the academic profession at the college or university level.” The Marshall Scholarship sustains American graduate students at British universities “as an expression of gratitude for the program of European recovery.” Three Arts and Letters seniors have lately won the Root-Tilden Scholarship for legal studies, sponsored by New York University. And the administration and faculty have been glad to note our recent successes in the National Science Foundation Fellowship competition—a program of fellowships designed for “study in the sciences as one means of promoting the progress of science.”

Altogether the record of the past six years has been remarkable. Most of these national opportunities did not, of course, exist until the early 1950’s. But qualified Notre Dame students, under careful faculty encouragement and guidance, have anxiously and successfully sought and will brilliantly continue to seek these opportunities—even though, in some instances, they must fairly and inevitably compete with one another. It should also be noted that this success has coincided with the development and implementation of the new plan of studies in the College of Arts and Letters and with the establishment of the A. B. Faculty Committee on Academic Progress, working with the Dean to identify superior students and to maintain their intellectual advancement through various means: for instance, honors sections for entering freshmen, undergraduate entrance into graduate courses, admission to majors in the sophomore year with the prospect for some of graduation in three years and for others of freedom from class requirements in the senior year so that they may undertake a really substantial critical, creative, historical, philosophical, mathematical or scientific project and bring it to truly great completion.

Finally, Notre Dame’s constant concern about academic excellence has received further justification in the fact that twenty-six winners—a high proportion for Catholic colleges—of the National Merit Scholarship have this year entered our freshman class.
A grant of $153,000 has been given by the Ford Foundation for the support of the Notre Dame Law School's program in legal philosophy. According to Dean Joseph O'Meara, Jr., the new fund will help to underwrite research and other activities of the Natural Law Institute. The Notre Dame grant was among awards totalling $2,950,000 announced recently by officials of the Ford Foundation in New York City.

Following a spectacular decision in 1956 by the Ford Foundation to increase teacher salaries in the nation's privately supported universities, Notre Dame was named recipient of a munificent $3,074,000 gift. An 'accomplishment grant' of $1,177,000 was included in the total amount for Notre Dame's leadership in the "betterment of faculty salaries." Exclusive of the 'accomplishment grant,' it was specified by the Ford Foundation that the remaining portion of the award would be invested over a ten-year period and only the interest used to augment faculty wages.

The prior Ford Foundation contribution to Notre Dame was the largest single gift ever received by the University and the current donation likewise is one of the largest gifts on record for the Notre Dame Law School. In 1953 the University inaugurated an intensive Faculty Development Program and appeals for its support have been made to alumni, corporations, foundations and non-alumni friends. It is also a major part of the new 1956-1967 $66.6 million program which highlights $27,000,000 for endowment to increase faculty salaries.

The Natural Law Institute, which will directly benefit from the Ford Foundation's $153,000 grant, was started at Notre Dame in 1947 during the period that Clarence W. Manion was Dean of the Law School. Initially it was sponsored by the Notre Dame Alumni Club of New York City and later by generous benefactions from Alvin A. Gould, Cincinnati, O. Mr. Gould, in addition to underwriting the Institute's annual programs, also donated a new Natural Law Library. It is known as the Alvin A. Gould Collection and is believed to be the only one of its kind in the world. The Gould Collection consists of a representative group of books and materials on the Natural Law and it is accessible to scholars and students of the Natural Law.

Participants in Natural Law Institutes have included such distinguished persons as Carlos P. Romulo, diplomat; nationally-known columnist George P. Sokolsky; the Honorable Thomas J. Brogan, former Chief Justice of the Supreme Court of New Jersey; Dr. Felix Morley, Pulitzer prize winner and former editor of the Washington Post; the Honorable Richard O'Sullivan, former King's Counsel of Great Britain; Dr. Edward S. Corwin, noted authority on the Constitution and the Supreme Court; and Dr. Stephen Kuttner, internationally known for his research in mediaeval canonical law at the Vatican.

The Natural Law Forum, an annual scholarly publication devoted to the natural law and to the philosophy of law, made its first appearance at Notre Dame in 1956. In addition to scholarly articles, notes and book reviews, the Forum features reports from all over the world concerning natural law developments. Edited by Professor Anton-Hermann Chroust, and assisted by a staff of associate editors and Professor Andrew T. Smithberger as Managing-Editor, the Forum has published articles by many well-known and competent persons.

History and literature for twenty-five hundred years demonstrate the universality and vitality of the appeal to Natural Law. In the United States, Natural Law became a part of the authentic fabric of American Constitutionalism when Thomas Jefferson wove Natural Law principles into the Declaration of Independence. The Natural Law is as old as man himself and the world's greatest thinkers have referred to it as the basic law of human rights.

The Natural Law has been an integral segment of the Law School curriculum since the first legal education courses were established in 1869. The generosity of the Ford Foundation's $153,000 grant will assist in the continuation of important Natural Law research and studies on the Notre Dame campus.
Where Do Great Ideas Come From?

From its beginnings this nation has been guided by great ideas. The men who hammered out the Constitution and the Bill of Rights were thinkers—men of vision—the best educated men of their day. And every major advance in our civilization since that time has come from minds equipped by education to create great ideas and put them into action.

So, at the very core of our progress is the college classroom. It is there that the imagination of young men and women gains the intellectual discipline that turns it to useful thinking. It is there that the great ideas of the future will be born.

That is why the present tasks of our colleges and universities are of vital concern to every American. These institutions are doing their utmost to raise their teaching standards, to meet the steadily rising pressure for enrollment, and provide the healthy educational climate in which great ideas may flourish. They need the help of all who love freedom, all who hope for continued progress in science, in statesmanship, in the better things of life. And they need it now!

If you want to know what the college crisis means to you, write for a free booklet to: HIGHER EDUCATION, Box 36, Times Square Station, New York 36, N.Y.

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UNIVERSITY OF NOTRE DAME FOUNDATION
1958 • NEW PROGRAM OF $66,600,000 • 1967
Extensive Laboratory Experiments Are Being Conducted with Anti-coagulant Drugs by Dr. Charles Brambel

It may be within the next ten years that scientists will introduce "heart attack pills" to the public. According to Dr. Charles E. Brambel, head of a Notre Dame research team investigating the clotting action of blood, these pills will reduce the chances of heart failure. Dr. Brambel has been working with anti-coagulant drugs since 1941 and during the past eight years his work has been supported by grants from the U. S. Army and the National Institutes of Health.

Drugs which inhibit the clotting action of the blood have been used for several years in patients who have undergone major surgery and to prevent recurrence of attacks in persons who have suffered from heart ailments. But Dr. Brambel predicts that in the next decade anti-coagulants also will be used extensively as a preventive measure, to remove one cause of heart attacks. The use of anti-coagulants will depend on the development of a safer drug than is now available and Dr. Brambel is experimenting with this problem at Notre Dame.

Last year the Public Health Service conducted an extensive survey on the effectiveness of anti-blood clotting drugs in preventing strokes. It is estimated that 172,000 people die each year because of strokes and it is thought that almost one million persons are attacked annually by the disease.

It is only recently that science has devised a system to combat on a large scale the dread blood clots that bring sudden death and suffering to so many. By daily medical routine the patient's blood is conditioned against formation of the little coagula that drift through the veins, eventually to clog the heart, lungs or brain. It is a control method similar to that applied to diabetics with regular doses of insulin.

Varied use has been made of a clot-preventive drug known as dicumarol—a comparatively new drug derived from the substance which gives new-mown hay its pleasant odor.

Dicumarol does not dissolve clots already formed. But it does prevent their growth, thus enabling the patient to survive while they are reabsorbed into the blood stream.

Normally a clot in the heart of a patient who has survived the attack is reabsorbed into the blood stream in about ten days. In most cases it adheres to the inner walls of the heart and the little tail of the clot flutters in the blood current. As the clot's growth is stopped by dicumarol it begins to disintegrate when a tiny hole is formed in its mass. Medical records show that persons between 40 and 60 are more likely to have clots than those younger or older.

"Clots are sticky things," said Dr. Brambel, "and usually they adhere, but not always. The floating ones are a constant menace of death and suffering."

The danger in dicumarol, as cited by Dr. Brambel, is hemorrhage. In large, unregulated doses it might cause bleeding through the eyes, ears, nose, mouth and other body cavities. It was through its hemorrhage-producing properties that the drug was discovered. Back in 1933 Dr. Karl Paul Link, of the University of Wisconsin department of agriculture, and other scientists noted that cattle were bleeding to death on the range with no apparent cause. Cattle which had scratched themselves on barbed wire bled uncontrollably.

Dr. Link and his associates discovered that cattle feeding upon cut sweet clover which had mildewed (or spoiled) in the process of becoming hay were the ones which had suffered hemorrhage. In many cases a switch to a diet of alfalfa stopped the bleeding. That was the
signal for the university's agricultural chemists to investigate the properties of sweet clover, both spoiled and fresh.

They found by experiments with animals that the juice of the spoiled sweet clover was a powerful anti-clotting agent. It had deprived the blood of its natural safety characteristic—its ability to clot, and so halt flow after a certain time. Chemists identified the substance as a derivative of the juices which give fragrance to freshly cut hay and which are sometimes used in perfumes.

Further experiments showed that this substance affected human blood as it did that of animals. The next logical step was to use the chemical, now called dicumarol, in a careful manner in cases where coagulating blood was a menace to life or health. Dr. Brambel has found that its effects are not cumulative. In other words, controlled dosage over a long period does not build up a tendency to bleed. Dr. Brambel has found also that it does not change the chemical makeup of the blood. He and other scientists believe that dicumarol has its effect through the functions of the liver, though they are not yet able to prove the theory.

Usually dicumarol is given about two days after a major operation. But in a very few cases it has been given before operations. With this prophylactic (preventive) treatment, no surgical patients died of clots after their operations. These patients showed signs of clots only at the rate of three in 3,000. In contrast, those surgical patients who had not received dicumarol had clots at the rate of three per 1,000; and one and four tenths patients per 1,000 who had not received dicumarol died of clots.

Dr. Brambel's work has other ramifications. Dicumarol is being used also to prevent or ameliorate blood clots in the eye which sometimes impair vision, or cause its loss. In such treatments the drug is used in combination with vitamin P, to the layman one of the more obscure vitamins.

When microscopically small clots lodge in the tiny capillaries (veins) of the retina they become gorged with sludge-like blood, grow red, inflamed. Dicumarol prevents further clotting, while vitamin P tones up and strengthens the capillaries and tends to reduce the clots already formed.

Vitamin P, which in nature is abundantly present in grapes and lemon juice, tones up capillaries not only in the eye but all over the body. These tiny veins, as in the eye, lie just beneath the body's other surfaces. When a person is bruised the tiny blood vessels are ruptured and blood spreads into the tissues, producing "black and blue" spots. The physician regards them as minor hemorrhages. When a person bruises too easily it can mean that he has a vitamin P deficiency.

\[\text{Laboratory assistant removing section of bone marrow for microscopic examination.}\]
Thus vitamin P, because of its peculiar function, is an important adjunct of Dr. Brambel’s work. Another, equally important, is vitamin K, also little known to laymen. It is a powerful clotting agent—the direct opposite of dicumarol. Lettuce is one of its sources. Vitamin K, of course, is used when necessary to stop excessive bleeding.

The experimentation at Notre Dame is a continuation of work which Dr. Brambel began in the early 1940’s. Meanwhile, Dr. Brambel is studying the effects of a less bizarre but very effective anti-coagulant—heparin. In addition to tests of this drug in various amounts and combinations, the Notre Dame biologist is seeking to determine just what causes the blood to thicken and clot.

In his research with the drug so far—Dr. Brambel checks the effect of heparin by injecting it in a rat, cutting off the rat’s tail, and measuring the amount of blood lost—the scientist and his co-workers have come up with discoveries which form the basis of 17 published papers.

The coumarin anti-coagulants, a type of drug different from heparin are the most commonly used today. It is a coumarin compound that was prescribed for President Eisenhower to reduce the chances of a second heart attack.

Dr. Brambel explains that a common form of heart attack results from clots forming in the blood vessels shutting off the flow of blood to the heart. By reducing the tendency of the blood to coagulate, doctors can cut down the number of clots which threaten the heart or brain and thus reduce the number of heart attacks and strokes.

The biologist, who conducted an anti-coagulant clinic in a Baltimore, Md., hospital for 12 years, adds that use of the anti-coagulants will not result in hemorrhage if they are properly controlled. Dr. Brambel said that the tendency of the blood to clot can be cut by as much as 50 percent without ill effects. This means that the drugs can reduce the formation of abnormal clots which might cause heart attacks and yet permit clots to form on wounds.

Dr. Brambel was educated at Johns Hopkins University, Baltimore, receiving his doctorate there in 1931. He was an instructor at Johns Hopkins from 1932 to 1942 and during the same period was a consulting clinical biochemist at Mercy Hospital. He became assistant director of the hospital’s clinical laboratory and training school for medical technology in 1936 and director of its anticoagulant clinic in 1943. He also taught at the University of Maryland Medical School.

A frequent contributor to professional journals, Dr. Brambel is a member of the American Chemical Society, the American Society of Zoologists, the Baltimore Medical Society, the Maryland Association of Pathologists and the International Society of Hematologists.
Father O'Brien, widely-traveled author and lecturer, came to Notre Dame in 1940 after serving as Chaplain of Catholic students at the University of Illinois for twenty-three years. While at Illinois, he also founded and directed the Newman Foundation.

He is a graduate of Viator College and received a doctorate from the University of Illinois in 1920. He has studied at Catholic University of America, the University of Chicago, National University of Mexico and at Oxford University in England.

Father O'Brien heads a commission of the National Conference of Christians and Jews. He is a prolific author and an outstanding public speaker. The article consists of extracts reprinted from Columbia magazine.

By Rev. John A. O'Brien, Ph.D.

Dr. Carlton J. H. Hayes is an outstanding historian and teacher. He formerly was U. S. Ambassador to Spain and is a convert to Catholicism.

In 1928, Governor Alfred E. Smith was nominated by the Democratic party for the Presidency. The first Catholic to be thus chosen by a majority, his candidacy immediately brought into the open the deep-seated suspicions and subterranean fears of many non-Catholics as to the dire things which would happen to our country, particularly its independence and freedom, if a "Romanist" were elected. The Pope would take over the control of the country, dictating the policies, while Smith would be but a mere stooge.

Such was the refrain echoed not only in scurrilous leaflets, anonymous letters and behind-the-hand whispers but also in the publications of Churches, secret organizations and the Anti-Saloon League under the direction of Methodist Bishop James H. Cannon, Jr. Teeming with cartoons and caricatures heaping ridicule and abuse upon the Pope, bishops, priests and nuns, these publications spearheaded a veritable campaign of hate against the Catholic Church and its members.

Mushrooming overnight into enormous size, the Ku Klux Klan bestrode the land like a hooded giant, whipping and tarring its victims and even murdering some. With 5,000,000 members paying $10 apiece for a 50 cent sheet, the hooded organization established a reign of terror in thousands of communities. Government officials quailed in their boots before the threat of the grand kleagle, supinely allowing his minions to replace the forces of law and order and to dominate county and state administrations.

It was a shocking display of ignorance, credulity, arrogance, hatred and violence, unparalleled on a national scale in the history of our country. It afforded a capital illustration of the truth of Goethe's observation, "Nothing is so terrible as ignorance with spurs on."

Like all decent people, the overwhelming majority of Protestants were ashamed and distressed. They saw in the smoking ruins and the piled-up debris of the flaming campaign, with its aftermath of new rancors and fresh hatreds, the dynamite which might wreck our nation. Thoughtful ones among them decided to do something about it.

Under the initiative of Rev. S. Parkes Cadman, Newton D. Baker and Justice Charles Evans Hughes a series of meetings was arranged. Roger Williams Straus and Arthur Sulzberger were among the Jewish representatives, (continued on page 18)
The twentieth century has a characteristic which is unique in history: the headlong progress of scientific knowledge. As a result of continuous advances in the field of science, modern engineering also is rapidly changing its character. New problems appear in the form of complex systems which encompass integrated resources of many branches of technology—mechanical, electrical, hydraulic, optical, chemical, metallurgical, and many more. In the solution of the complex engineering systems of the modern era, it is no longer possible to deal with them part by part; rather each system must be analyzed as a unitary whole. A group has always been necessary to carry out the latter function. In the last decade, however, because of the complexity of engineering systems with their many interacting components, because of the need for operating over a wider range of rapidly changing situations, and because of the greater dependence of engineering systems on recently discovered scientific phenomena the need for integrating the whole has taken on added importance.

So based on this thought, an undergraduate program in engineering science was inaugurated in Notre Dame's College of Engineering at the beginning of the current school year. It was also disclosed that the department of engineering mechanics, exclusively a graduate unit until now, has been renamed the department of engineering science and will administer the new program of studies. Dr. Adolph G. Strandhagen continues as head of the newly designated department.

The development of engineering education in the United States parallels the development of the country itself. In the days when there was still a "western frontier," the engineer's work consisted largely of the design and construction of roads, bridges, railroads, dams, jetties, the improvement of mechanical tools and power generators, etc., all of which required a minimum amount of theoretical knowledge but a large amount of practical knowledge. The curricula of the then existing engineering schools reflected these requirements in that much time was devoted to the "Engineering Art" and relatively little time to "the Engineering Science."

As the frontier disappeared as a result of the westward migration of the population and the development of rapid and reliable means of transportation and communication, the engineer became less and less a construction superintendent and more and more originator, designer, analyst and synthesist applying the new discoveries of the physical sciences to practical use. Engineering education adapted itself readily and quickly to the new conditions.

In engineering education, curricula are being subjected to searching analyses with a view to adapting them to modern needs. In the midst of the revision of existing curricula the outstanding, most direct, and most hopeful sign of true progress is the rapid recognition of a new concept: engineering science, i.e., the advancement of engineering by organizing the principles involved in manifold engineering developments and research into a discipline which exhibits the similarities between different areas of
engineering, emphasizing the power of fundamental concepts, and which integrates the components into a complete engineering system. As a result, engineering science curricula have been instituted towards the education of personnel capable of coordinating and solving entirely new complex engineering systems. For such work the engineer must have a thorough grounding in pure science (mathematics, physics, chemistry), and all the basic principles of engineering science (mechanics, thermodynamics, heat and mass transfer, electricity and electronics, fluid mechanics, cybernetics).

Notre Dame's new engineering science program, according to Strandhagen, will be geared "to produce a flexible student, one who can adapt himself to the rapidly changing technology of modern times. It will provide the student with a broad foundation, a preparation, a potential for entering and advancing in new and as yet undeveloped fields of engineering, not as a specialist in any isolated portion, but as one who can grasp, visualize and coordinate the whole."

Students successfully completing the engineering science program will be equipped for competent participation in research and development work, Strandhagen said. They will also be qualified, he said, for graduate work in engineering science or in one of the specialized engineering areas. He stressed that the student will require advanced study and considerable experience before he can assume supervisory responsibility for complex engineering systems.

The four-year engineering science program will consist of a total of 151 semester hours of class work, Strandhagen said. Although the emphasis will be on a general and fundamental approach, there will be an opportunity for a limited degree of specialization in particular areas through approved courses in the professional departments.

Engineering science majors will spend about one-fifth of their classroom hours in liberal arts courses including English, philosophy, religion, social science and a two-semester seminar in the humanities in their senior year. Another component of the engineering science curriculum will be the natural sciences represented by approximately 56 semester hours of mathematics, physics and chemistry courses. The program also includes a series of basic engineering courses in the freshman and sophomore years and provides for two elective courses in specialized fields such as mechanical, electrical, chemical, civil or aeronautical engineering in the junior and senior years.


The Engineering Synthesis course, to be taken in the last semester of the senior year, culminates the new engineering science program. According to Strandhagen, it is designed to interest the student in the professional method of attacking whole engineering problems. It will also serve to integrate the broad background of engineering sciences which the student has already acquired. Most of all, Strandhagen points out, it will develop the student "by challenging his imagination and shaking him loose from implicit assumptions and from routine habits of thinking." The student will be presented with problems cutting across many fields, some of them far removed from his own previous education and experience.

Dr. Strandhagen, who has been on the Notre Dame faculty since 1946, received a B.S.E. in Naval Architecture and Marine Engineering degree at the University of Michigan in 1939. He also was awarded a B.S.E. in Mechanical Engineering, a M.S.E. in Engineering Mechanics and a Doctorate in Engineering Mechanics, all from the University of Michigan.

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can adapt himself to changing technology."
The Review of Politics is celebrating its twentieth year. This is not a long time in the one hundred and sixteen years of Notre Dame, but it is a sizeable achievement in the realm of scholarly publications. Many other scholarly publications, having greater funds and equally noted friends, have failed during these twenty years. Two important factors have kept the Review of Politics vigorous and important. The first has been the freedom of discussion preserved in the pages of the Review of Politics by the University administration which has underwritten the costs of publication. The second has been the friendship and support accorded to the Review of Politics by, first, its editorial staff and, then, its generous friends both within and outside the University.

Since the Review of Politics is essentially a university publication in the field of the humanities, this freedom of expression has enabled its editors and contributors to expound and defend particularly the principles and practices which uphold human freedom and dignity and to study the problems of the modern world from the traditional philosophy of a Christian university. It was significant that the first article in the first issue of the Review of Politics in January, 1939, was Jacques Maritain’s “Integral Humanism and the Crisis of Modern Times.” In that first volume also were articles by Mortimer Adler, John U. Nef and Jerome G. Kerwin of the University of Chicago, Goetz Briefs of Georgetown, Donald Davidson of Vanderbilt University, C. J. Friedrich of Harvard, Christopher Hollis of England, Desmond Fitzgerald of Ireland, and Etienne De Greffe of Louvain.

Central in the foundation of the Review of Politics was its first editor, the late Waldemar Gurian, a brilliant opponent of Hitlerian and Soviet totalitarianism, who had been forced into exile before the wrath of Nazism. Dr. Gurian invited all who shared his devotion to freedom and humanism to contribute to the new quarterly. His own exposition of the plots and threats of Soviet Marxism under Stalin showed him to be one of the best informed critics of modern communism. Dr. Gurian never lost his affection for the Russian people while remaining a tireless opponent of the philosophy of Lenin and Stalin. Associated with him during the early years were Professor Aloys Hermens, whose analysis of the evils introduced into several modern governments by the use of proportional representation has received international recognition, and Professor Frank O’Malley who assumed the important task of maintaining the high literary quality of the articles and of supervising the printing of the magazine. Father Thomas T. McAvoy, C.S.C., joined Professor O’Malley in 1942 as co-managing editor and Professor M. A. Fitzsimons collaborated from the beginning with Dr. Gurian in the many editorial chores.

The list of distinguished contributors to the Review of Politics during the twenty years includes, besides those mentioned above, theologians such as Jean Danielou, and Gustave Weigel, such philosophers as Yves Simon, Joseph Pieper, and Father Leo R. Ward, C.S.C., such historians as Francis Dvornik, Freidrich Meineke, Guillaume De Bertier, Franz Schnabel, such political scientists as Hans Morgenthal, Hans Kohn, Clinton Rossiter, Father Luigi Sturzo, Eric Voegelin and Frank Wilson, and such economists as Gottfried Haberler, Fritz Morstein Marx, Fritz...

After the death of Dr. Gurian in May, 1954, the Review of Politics had become such an accepted voice in American intellectual life that its policies could be easily continued by Father McAvoy and Professor O'Malley for a brief interim and since 1956 under the inspired direction of Professor Fitzsimons the high standards of the Gurian editorial regime have been maintained. Despite the fact that the Review of Politics does not have the support of any learned society and is not endowed, the Review does not have the constant clientele in the public and university libraries. Its articles have been frequently reprinted by the Government for distribution abroad and for use in the training of officers in the armed forces, and in many scholarly anthologies.

During the twenty years, the Editors of the Review of Politics have received many generous notices in the press. They have also received praise from business men, from men in government, from educators, from ecclesiastical leaders and from others interested in intellectual affairs, particularly when approached from the angle of public policy. Archbishop Joseph E. Ritter has said: "I am willing to be put on record as a reader of the Review of Politics from the beginning and also that I find it scholarly, stimulating and informative." Monsignor Francis Lally, the Editor of the Pilot of Boston says: "Every issue of the Review of Politics is a new adventure in the world of ideas, and specifically those ideas that are now shaping the history of our times. For all observers The Review provides a thoughtful and persuasive commentary; for the Catholic student of political thought it is indispensable." Professor Raymond J. Sontag of the University of California says: "I open each issue of the Review of Politics knowing that it will contain articles and reviews which are not only informative and interesting, but which will illuminate some aspect of human society and politics."

To commemorate these twenty years the Editors of the Review of Politics have decided to double the size of the October, 1958 and the January, 1959 issues of the Review and to publish a selection of the better articles of the twenty years in a Review of Politics Reader. The October issue features articles by Father Gustave Weigel, S.J., on Latin America, Joseph Pieper on the philosophy of tradition, Hannah Arendt on history and science, Raymond Sontag, Kenneth Thompson, Francis J. Colligan and Jacques de Bourbon-Busset. The January issue will consist solely of articles and reviews by the faculty of the University of Notre Dame, led by its editors Dr. Fitzsimons, Professor O'Malley, and Father McAvoy.

The continuance of such a scholarly journal as the Review of Politics depends upon the extra efforts of its friends, because it can scarcely be self-sustaining. While the University of Notre Dame has generously underwritten the finances of the Review of Politics, the Review has special friends who help by becoming sustaining subscribers. These sustaining subscribers among whom are some members of the hierarchy, pay $200.00 for a twenty-five-year subscription, $125.00 for fifteen years, $75.00 for ten years, $25.00 for five years and $15.00 for two years. The annual subscription is $5.00 and the Review of Politics Reader will sell for $6.00. Subscribers to the Review of Politics may obtain the Reader for an addition of $3.00 for each subscription and further copies at $4.00 each. For your convenience, clip and mail:
Ignorance With Spurs On . . .
(continued from page 13)
and Judge Victor Dowling, Michael Williams and Monsignor Michael J. Lavelle were among the Catholic representatives, who participated in these early conferences. Out of them emerged, in 1928, the organization that subsequently came to be known as the National Conference of Christians and Jews.

It was not until 1930 that the dual base of co-chairmanship was broadened into a tripod and a Catholic, Professor Carlton J. H. Hayes of Columbia, was named as co-chairman to serve with Baker and Straus. It was a happy choice and Hayes served with distinction for fifteen years. A convert who had been drawn into the Church by his profound study of history, Hayes was keenly conscious of Catholic sensitivity to compromise of doctrine and guarded against it.

One of the most frequent topics of discussion at NCCJ meetings over the years was the cause of religious prejudice, and on this point not only the rank and file but often the leaders and officers differed widely. As far as prejudice against Catholics in the United States was concerned, Hayes was convinced that, while racial, economic and other factors are involved, the basic cause is widespread ignorance of what Catholics really believe. It is the misconceptions and caricatures of Catholicism which fills the mental belfries of Protestants and (to a lesser extent) of Jews, with bats scaring them half to death.

Here we come to the crux of the problem confronting the Conference: the origin or source of religious prejudice. As the etymology (pre = judge) of the word indicates, prejudice is judging before all the facts are in. In its root meaning it is thus the action of a judge or jury in deciding a case before hearing all the relevant evidence. Prejudice results from what Josh Billings calls "knowing so many things which ain't so." It is "being down on what you're not up on."

No sketch of the Conference would be complete without mention of the work of Roger William Straus. A co-founder of the organization and for the first 29 years of its existence a co-chairman, Straus was a tower of strength to the Conference.

Knowing his lifelong devotion to the work of brotherhood, his widow, Gladys G. Straus, upon his death in 1957, contributed a million dollars to the Conference as a memorial to her husband, thus equaling the princely gift of the Ford family.

The founders of the NCCJ were fortunate in enlisting the services of Everett R. Clinchy, who brought to his task a consuming conviction of its worth and a high spirit of dedication. Undaunted by the inertia of the many and the opposition of the few, Dr. Clinchy has labored as the full-time director of the organization with tact, resourcefulness and undiscourageable good will for the eradication of religious prejudice and the promotion of brotherhood.

The Conference serves as a symbol of the understanding and good will which must obtain in civic relations in the most polyglot nation in modern history, if that nation is to possess the internal unity and the strength necessary to meet the grave challenges facing it today. It is surely a source of legitimate pleasure for us as Catholics to recall that it was one of our members who made this outstanding contribution to the development of the Conference's program in America.
THE COST OF GIVING

... may be reduced by taking advantage of existing tax laws

With the end of 1958 approaching, the following information is highlighted for alumni and non-alumni friends who are interested in tax benefits regarding a contribution to Notre Dame.

Gift of Cash

Existing tax rates have been extremely helpful in permitting the taxpayer to make a charitable contribution at low cost. When you give to the University, a deduction of the full amount of your gift up to 30% of your adjusted gross income for Federal tax purposes is allowed.

Gift of Property or Securities

The gift need not be from income or cash. Equally deductible is a property gift or a gift from securities. Those that have increased in value while held by an individual are deductible at full market value and are free from any tax on capital gain — this results in a double saving to the donor!

Gifts from Corporations

Corporations contributing beyond the 5% limitation in any single year can extend the excess over as deductions in the two succeeding years — subject, of course, to the 5% limitation for each of the three years. The actual cost of each contribution dollar is only 48 cents for corporations which have taxable incomes in excess of $25,000 since taxes are paid at the rate of 52% of such excess. Smaller corporations with incomes less than $25,000 are taxed at 30% and the cost of each dollar contribution is 70 cents.

**CHARITABLE CONTRIBUTIONS**

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<tr>
<th>Taxable Net Income After All Deductions and Exemptions</th>
<th>Single Person or Separate Return of Married Person</th>
<th>Joint Return of Husband and Wife*</th>
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* Under "split-income" provisions of Internal Revenue Code
ADDITIONS TO:

Commerce . . $500,000
Law . . . . . . $500,000
Engineering . . . $500,000
Library . . . . $5,000,000
(2) Graduate Halls . . $2,500,000
Priests Faculty Hall . . . $1,500,000
Maintenance Center . . $500,000
Auditorium . . . . . $3,500,000
Fieldhouse . . . . . $4,000,000

Construction has already started on a half-million dollar maintenance center, the first building to be erected as part of Notre Dame's ten year, $66,-600,000 development program. It will replace a group of old shop facilities which date back to the early years of the University. The new building is scheduled for completion in January, 1959, and will be located on old Juniper Road at the northeast edge of the campus. The one-story, buff brick building will include several maintenance shops, a warehouse providing 30,240 square feet of storage space, a garage for servicing and storing University vehicles, and an office. This building will be the working headquarters for 60 maintenance employees.