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Now faith is the substance

Science Building

Fred J. and Sally Fisher Residence Hall

Things visible were made
of things to be hoped for...

out of things invisible.

The Epistle to the Hebrews...XI: 1, 2, 3
How About the 5%?

Dean McCarthy Writes About “the Five Per Cent” as It Applies to Tax Deduction of Corporations for Educational Purposes

By James E. McCarthy

The executives of many American business corporations are coming more and more to realize that they are being presented with a grand opportunity to prevent the encroachment of the federal government upon still another field of activity—a field of activity which has hitherto been quite decentralized. This is the field of higher education. The clamor for federal aid to colleges and universities has been mounting steadily in recent months and years, and the constantly increasing pressure upon Congress to come to the assistance of higher education probably cannot long be withstood.

That the financial plight of a great number of colleges and universities is desperate is a fact well known. Although many institutions have long spent more money per student than the student has paid in tuition and fees—bridging the gap by drawing upon every possible source of miscellaneous revenue and even using endowment funds—the skyrocketing costs of operation of the past decade have made it the more difficult for them to remain solvent. On the one side, the mounting costs have had to be met—but on the other, it has been impossible to raise tuition charges and fees commensurately—impossible, that is, unless a college education is to be made prohibitively expensive for the great mass of young men and women.

That the business corporations of the country have a vital stake in higher education as it is at present organized is also a generally accepted fact; indeed, it is a fact so largely taken for granted that we are inclined to give it little thought. Not only do such corporations recruit a great number of college graduates for their administrative and technical personnel, but they also gain many direct benefits—often substantial ones in the financial sense—from the research and thinking that go on in college classrooms, laboratories, libraries, and offices. Their stake is in research and thinking that remain unregimented—and they must, therefore, fear that federal aid to higher education may turn out in time to be federal management of higher education.

But there is a price which business corporations must pay if they wish to prevent federal encroachment—if they wish to continue to enjoy the benefits of the freedom of research and thinking which at present characterizes American colleges and universities. If free colleges and universities are to survive, they must have money to overcome the financial difficulties with which they are now struggling; if the money is not to come from the federal government, it must come from other sources. And much of it, presumably, should come from business corporations. Much of it indeed, should come wholeheartedly from business corporations, for as Beardsley Ruml and Theodore Geiger have put the matter—

“A dollar wisely and soundly invested in worthwhile educational, scientific and welfare activities comes back manyfold over the longer term. Expenditures which contribute to these ends are neither an unnecessary burden nor a tiresome obligation. Like investment in new plant and equipment, they more than repay their cost in the future and can be among the most productive and remunerative forms of business expenditure.”*

The amazing thing about corporation support for higher education is that it need not be particularly expen-

sive. The financing of the deficits of colleges and universities does not mean a cost to the corporations equal to the amount of the deficits. Far from it. The reason for this paradoxical conclusion is that corporation contributions can be substantially offset by tax savings. The federal revenue laws permit business corporations, in computing net income subject to income taxes, to deduct contributions for educational, scientific, and welfare purposes up to five per cent of net income—a concession which is extraordinarily important in these times when corporation tax rates are so very high, and which becomes more even more important now that the Revenue Act of 1951 has boosted the combined normal and surtax rate to 52 per cent and has placed the combined normal, surtax and excess profits rate at 82 per cent. Thus, if a corporation with sufficient income to put it well into the 52 per cent brackets were to contribute, say $100,000, for educational purposes, the net cost of its contribution would be only $48,000, for the remaining $52,000 would have to be paid out anyway—to the tax collector if not to the educational institution. Even more dramatically, a corporation which finds some of its income spilling over into the excess-profits category could contribute, say $100,000, in the full realization that it would thus be incurring a cost of only $18,000!

Although corporations have been permitted since 1936 to deduct contributions made for educational, scientific, and welfare purposes, they have exercised the privilege only moderately. Such deductions, for example, amounted to only .41 per cent of net income in 1936, to .46 per cent in 1939, and to .35 per cent in 1941. Before the war, however, the tax-saving feature was not very significant, since the corporation tax rates were quite modest. But the leap in tax rates of the war and postwar periods should have changed the attitude of corporation managements much more than it did. It is true that contributions reached a high of 1.24 per cent of net income in 1945, but they fell off to .84 per cent in 1946, and still further to .70 per cent in 1948, the latest year for which statistics are available.

In pondering upon the question whether or not to step up the amount of their contributions to take advantage of the bargain-basement prices of good will and other benefits, as cited above, corporation executives must of necessity have in mind the fact that, should they ignore the opportunity that is offered them, they may well be called upon to foot the bill for the deficit in higher education anyway. For if a program of federal aid to higher education is launched, corporations may be expected to bear much of the burden via the tax-route—it hardly needs to be argued that corporations are the happy hunting ground for tax gatherers when new programs of expenditures are decided upon.

What is more, the legal aspects of contributions by corporations appear to offer little in the way of difficulties. According to section 23 (q) (2) of the internal revenue code, contributions up to five per cent of net income may be deducted if made to corporations, trusts, community chests, funds and foundations that are organized and operate exclusively for religious, charitable, scientific, literary, or educational purposes or for the prevention of cruelty to children; and there is the additional provision that no part of the contributions may benefit private shareholders of the recipient and no substantial part may be used in carrying on propaganda, or otherwise attempting, to influence legislation. Under the state corporation laws, the question sometimes arises as to whether directors can prove specific benefits to their corporations when they spend corporation funds for educational, scientific, and welfare purposes; but, in ordinary circumstances, it should not be difficult for directors to justify such expenditures. At least 22 states, indeed, have adopted laws which are generous in interpreting what benefits corporations making contributions; for example, the New York law sanctions expenditures for “activities conducive to the betterment of social and economic condition” without requiring a proof of direct benefit to the corporation. It might be added, too, that in

College of Commerce, gift of the late Edward N. Hurley, of Chicago.
Indiana partisans may not have liked the score but these youngsters from Louisville thought it was a good ball game.

Football Special

By Joe Creason

The Notre Dame Alumni Club, in Louisville, Ky., annually sponsors a trip to one of Notre Dame's home games for orphans from that city. It has developed into an efficiently-run project. NOTRE DAME takes pleasure in reprinting a story from the Louisville Courier-Journal, with the permission of their editors, about this yearly 'pilgrimage'.

It has been said that getting a college alumni group to pull together on anything for long is only slightly less difficult than moving the Rocky Mountains into the south suburb of Altoona, Pa. All of which tends to make the Notre Dame Alumni Club of Kentucky more than somewhat unusual.

For that club, which, logically enough, is composed of ex-Notre Darners, undertakes—and succeeds in staging—at least one major event annually that requires the complete, 100-proof cooperation of its 150 or so active members. Once every fall the club tacks a coach full of Louisville orphans onto one of the special trains it runs to a Notre Dame football game.

Now just setting up and getting a special train of some 250 adults to and from a football game is bad enough. But adding 90 boys, ranging in age from 8 to 15, to that crowd is enough to make even good, strong men start thinking of long rest cures at those resorts where the walls are padded and where the bellhops wear white coats and carry strait jackets as standard equipment.

Yet after five years of shepherding orphans on a trip to South Bend, Indiana, home camping ground of the football-mighty Irish, the Notre Darners don't seem to be breaking loose in the belfry. Few of them think they're Napoleon, and no more than half a dozen claim to have perfected perpetual-motion machines.

This year's pilgrimage to Irish-land was for that Notre Dame-Indiana afternoon of horror a couple of months back. Although the game (Notre
Dame 48, Indiana 6) turned out to be one of the most uneven contests since they put Marie Antoinette in against the guillotine, the trip was a double-dipped success no matter how you look at it. Not even one of the 250 cash customers or 90 house guests was lost during the 21 hour-long round trip.

That feat alone, football specials being what they are, is roughly the equivalent of dropping a crate of eggs from the roof of the Woolworth Building without cracking a single shell.

Moreover, the day didn’t cost the orphans a cent. Transportation, three meals, a sideline ticket to the game, programs, Notre Dame-colored toboggans, a continuous round of entertainment and plenty of fruit, sandwiches, soft drinks, milk, ice cream and candy — enough to bring a gleam to the eye of any bicarbonate-of-soda maker — all were thrown in free. Even pennants and those ridiculously-expensive lapel footballs were included. The cash value of the trip and the many extras for each boy easily was worth $50.

Maybe by now you’re wondering how, unless the project is underwritten by some member who runs off batches of $20 bills in his basement, the Notre Dame Club can give away so much for absolutely nothing and with no strings attached.

Well, the answer undoubtedly is organization, cooperation of all members and plain hard work of a few. For instance, the orphan trip is planned well in advance of football season. The alumni club president appointed a committee and the wheels started turning nearly six months before the date of the safari.

First, tickets, which by a month before the game were harder to find than fireplugs in the Sahara, were reserved by the club president. Then he met with Mack Haymaker, Louisville passenger agent for the Pennsylvania Railroad, and lined up the special train for that date. That was back in July. After that the orphanages were notified and asked to pick 10 boys each and to provide one supervisor for the trip.

Finally, committee members made a round of local business places and asked if maybe they wouldn’t like to contribute something in the way of food for the boys. Most of them would and did. The final roundup of stuff seemed enough to feed a miniature army. Actually, however, there was just enough to keep the boys eating from the time they left Louisville at 5 one morning until they arrived back at 2 a.m. next day.

In reality, the most unusual feature of the trip, as well as of the four preceding it, is the fact that it was non-sectarian; in other words, not for Catholic boys exclusively. Those who rode the special came from two Catholic homes (St. Thomas and St. Joseph’s), two Protestant homes (Masonic and Protestant Orphans) and from Ormsby Village and the Optimist Boys Club.

This business of taking a coach of boys along on a trip to South Bend may be new to the Notre Dame Club, but conducting specials of one kind or another to important Irish football games is old stuff. The club, the largest Notre Dame alumni group in the land from a standpoint of continuous activity, has been doing that since 1924 or thereabouts.

In those early days, Frank Bloemer, Ray Kirchdorfer, the late Nic Bosler and others would round up a big bunch of stages, hop on the interurban car bound for Indianapolis and from there take another interurban on to South Bend. That made a rough, three-day trip, but, the love of a true Notre Dame man for the school is little this side of the boiling point. Some years later the special-train idea was conceived, and two or more such trips have been staged for the last 12 or 15 years.

Since the trips grew into a big thing, they have been open to the general public. Alumni are given first crack at the tickets reserved for a particular (Continued on page 14)
U. S. Army Engineers Is Latest Military Unit to Be Established on Notre Dame Campus

In order to meet the need for junior officers in the Corps of Engineers and recognizing the high quality of instruction as well as the type of student who graduates from Notre Dame, the Department of the Army installed an Army Reserve Officers Training program in the fall semester of 1951. The University of Notre Dame was one of three Universities in the Midwest to sponsor this program.

The Department of the Army has assigned Lt. Colonel George M. Cookson as Professor of Military Science and Tactics and as Commanding Officer of the Military Detachment he is responsible for instruction and training. Colonel Cookson has had ten years of ex-

Mines and Booby traps are important subjects in the Engineering officer program.

Advanced students using exact scale models study M-4 ponton bridge.
Classroom instruction on Bailey Bridge scale model. Army officer candidates are taught how to use the rifle.

Much interest has been shown by faculty and students in the activities of this newly organized unit. It is a growing unit and shows promise of equaling the Navy and Air Force program in stature. There were 155 students enrolled the first semester, and a prospective strength of approximately 200 is anticipated for the second semester.

A number of factors may be responsible for this increase but the course offerings blend so well with subjects taught by the College of Engineering that this is probably the greatest contributing factor. The subjects that are taught provide a practical aspect in the students training. Some of the subjects are Military Roads and Airfields, Bridge Design and Classification, Hand Tools, Rigging, Demolitions, Maps and Photomaps, Construction, Utilities and Job Management.

In addition to the courses which have to do with branch techniques there are those which have to do with matters relating to world conditions and international crisis. Timely courses are offered the student so that he may discharge his basic duties and responsibilities of citizenship as well as to develop an informed group of potential officers. Military Policy of the United States, Psychological Warfare, Military Problems of the United States, Command and Staff, and Intelligence all play their part in forming an enlightened citizen-army.

Study of camouflage teaches these men self-preservation. Use of explosives is taught to second-year cadets.
A Notre Dame Special Education Feature

By James W. Frick

We are in the year 1548. Thomas J. Wagner is eighteen today. This is the day when Tom ceases to be a human being. From now on, he is just an animal to be caged like other wild animals because he has a handicap — a mental handicap. Some people say that Tom is crazy and in this day and age all crazy people are treated like animals. They are thrown into a dungeon where existence itself depends on their physical prowess. Maybe there are 80 other “animals” in the cage with Tom. Twice a day the guard tosses in a basket of stale bread. You see, we can’t feed the animals too much. It isn’t good for them. If Tom is agile enough he may be able to exist for ten years before he dies of starvation or his friends trample him to death after that stale bread. It’s a great life to look forward to . . . a great future.

Or take the case of William J. Hanson. He’s twelve on this, the twenty-fifth of May, 1915. Bill would give anything to play baseball with the other kids but they say he “ain’t fit to play with.” Three years ago he had polio and it left him with a deformity of his right leg. He gets around fairly well but he can’t run as fast as the other kids so they don’t want him on their team. Bill has to be content with standing on the side-lines watching the East Side Eagles drub the North Side Bears. He has a “great” future too. Maybe not as bad as Tom’s in a way but then, maybe the mental anxiety is worse.

Recently a special series of lectures called the University of Notre Dame Handicapped Children’s Workshop, sponsored by the Department of Education at Notre Dame in conjunction with the National and the Indiana Societies for Crippled Children and Adults was held on the campus and at a nearby crippled children’s hospital. Teachers, nurses and welfare workers from all parts of the country were brought together to study the problem of children barred from playing baseball with other children because of some physical handicap or shut up in some asylum, like animals, because of some mental deficiency. After all, this is a progressive world. We’re not in the year 1548, or even 1915.

Experts in the field of special education were on hand to lecture on the new methods of treating handicapped children. Dr. Bernard J. Kohlbrenner, head of Notre Dame’s Department of Education and Coordinator of the Workshop, explained that the primary objective of the Workshop was to do away with the idea that handicapped children are a burden on society and to establish a realization that with proper guidance any child, regardless of handicap, can become a useful citizen.

Under the Directorship of Dr. Herschel Nisonger of Ohio State University, the Workshop members were introduced to the problems involved in dealing with handicapped children and the methods of overcoming them through a series of lectures and films. For practical application of the suggested methods, the group was taken to the local hospital and summer camp for handicapped children. There they watched the broken little bodies being woven into a coordinated unit, and the tiny warped minds beginning to grasp the meaning of playmates.

During the last quarter of a century much progress has been made in the field of special education for handicapped children. Among the early leaders in the field was Dr. John J. Lee, Dean of the Wayne University Graduate School. Because of the importance of fostering the cause of special education, Dr. Lee and the other staff members gave their time freely to the Workshop. As a result there were no tuition fees, but many of those attending were sent on scholarships by the schools or groups they represented.

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REN'S WORKSHOP...

Workshop scenes at the Northern Indiana Crippled Children's Hospital, located near the ND campus.
The Human Equation

Not Machines, but the Minds of Men, Shape the Company's Research
University of Notre Dame trained scientists have long been recognized by the E. I. Du Pont de Nemours Company, and other leading organizations of this type, as essential personnel on their research staff. Officials of the Du Pont Company kindly furnished material for this picture layout.

Ideas formed in a man's mind, which has been trained and sharpened by education and experience, are the basis of successful research. Without the creative brain of the scientist and his associates, all other research investment is worthless. Realizing that these men and women are its greatest research assets, Du Pont painstakingly selects its scientists. The picture above indicates the formal education of 116 doctors of philosophy at the Jackson Laboratory, Deepwater Point, N. J., where one Du Pont department carries on organic chemical research. Each of these research workers has completed at least seven years of university training, including three years of graduate work at the institution indicated.
Football Special
(Continued from page 7)
game, and all those left over are offered to anyone who cares to make the ride.

Incidentally, while it's referred to as the Notre Dame Club of Kentucky, most of the membership is in Louisville. However, on football jaunts graduates and former students from such scattered points as Bardstown, Paducah, Ashland, Owensboro, Lebanon, Elizabethtown, Carrollton and Frankfort make the trip.

For the latest trip, the boys occupied the first coach on the train, directly behind the engine. That coach was for the boys only; no-man's land, in other words.

When the boys weren't eating, they were reading comics, playing bingo or some of the other games in which winners were awarded pen-and-pencil sets. On the return trip their names were dumped into a hat and a drawing was made for a Notre Dame blanket. Jim Brown of Masonic Home was the winner.

Two meals on the trip were served in the train diner. Besides, each boy was given a bag of sandwiches, doughnuts, fruit and candy for lunch before the game. But the three scheduled meals were only part of it. As one 10-year-old boy put it:

"I've had seven soft drinks, four pints of milk, three sandwiches, a brick of ice cream, two apples, an orange, two bananas and a couple of candy bars, but I think maybe I can force down that doughnut."

ND Debate Team in Match Against Oxford

The University of Notre Dame debate team competed against one of the world's outstanding collegiate debating units recently when Coach Leonard Sommer's "Arguing Irish" played host to the crack debating unit from Oxford University (England) in a non-decision debate.

The question argued in the international debate was "Whether or Not We Should Outlaw Communism." The Oxford University team currently is touring the United States staging a series of debates with leading college and university debating teams throughout the nation.

Ford Scholarship Winners

Five of a total of thirty-seven boys who won scholarships under a unique Scholarship Program for Sons and Daughters of Ford Motor Company Employees have elected to study at the University of Notre Dame, according to an announcement by the Rev. Louis J. Thornton, C.S.C., Director of Admissions at Notre Dame.

Father Thornton said that according to the terms of the Ford Scholarship Program, which is administered by the Ford Motor Company Fund, all winners will receive full tuition and customary academic fees at any recognized college or university they may choose. For scholarship winners who choose a privately-endowed college or university, such as Notre Dame, the Fund makes an additional $500 annual grant to such schools for each scholar in attendance, in recognition of the fact that at privately-endowed colleges and universities the student's tuition and fees do not cover the entire cost of his education.

Recipients of the four-year scholarship program were selected following nationwide competition among eligible children of Ford Motor Company employees. To be eligible for scholarships the students had to be in the top third of their high school class and take a competitive examination given by the Educational Testing Service, Princeton, N. J. Class standing, examination grades, extra-curricular activities, and recommendations from high school principals and senior counselors were scored to determine the winners.

The University of Notre Dame accepted a larger number of Ford Scholarship winners than any other college or university.

Before coming to the University of Notre Dame, as a student, in 1917, Father Cavanaugh was secretary to Mr. Liebold who at that time was private secretary to the late Henry Ford.

Joseph Conwell, of Greensburg, Pa., a junior in the College of Arts and Letters at Notre Dame, was named natural champion in the contest for an oration entitled "If You Should Go To Youngwood". Conwell qualified for national competition by winning the Indiana state crown last Spring. He was coached in the competition by Professor William J. Elsen, Head of the Department of Speech at Notre Dame.

YOU NGW OOD is a small town, just down the road from West Salem on U.S. highway 38. Like all small towns, it has its general store, tavern, and Post Office, around which are clustered a number of gray frame homes. Youngwood has its share of good, hardworking citizens and its portion of folks who "whoop it up" a bit at night.

The older, retired gentlemen of the community — Ben Brown, Jack Franklin, and Old Bill Sundray, just to mention a few — congregate each afternoon on the porch of Zeke Campin's Tavern, which is just across the road from the Old McPherson Grocery Store. Here, they talk of town gossip and discuss the world's problems. Why, just the other day Old Bill Sundray said — and most folks today agree with him, "Countries ben fightin' fer as long as I can remember, and fer all I knows they'll be waren forever. It seems that folks are naturally unhappy if they ain't got somethin' to squabble over. It's ben getten so that the only place a fella can find peace of mind is in his grave."

What is this peace that our friend Bill Sundray believes can never be obtained? It's something more than the absence of war. It's a spirit of friendship and cooperation that should exist among all states, groups, and individuals; it is order — order among the parts of the whole world organism.

As we know, mankind has never permanently enjoyed this harmony so earnestly desired. Why? Do individuals wish to fight and to kill? I think not. There are few today who desire war, but just as few who do not believe war is inevitable. In spite of this overwhelming desire to end the horrors of aggression, we live today under the gloomy shadow of another worldwide conflict, a shadow which seems to grow with each passing hour. Why? Why?

The answer is simple. Men are sel-

if you should go to youngwood

By Joseph Conwell

fish, self-centered, think only of themselves. John Hurtz, of Howard University, wrote,

Human beings are often loath to admit that they act in purely selfish fashion, in order to achieve as high a degree of security and as great a portion of power as possible. They and the societies they lead wish to avoid the consequences of the accumulation of, and competition for, power, realizing that it brings about human suffering and misery, exploitation and death, the whole gamut of wars and violence, slavery and oppression.

The effects of this apathy are magnified monstrously when ordinary men — like you and me — become political leaders. Personal selfishness is transformed into national selfishness; and personal greed, into nationalistic ambitions. It's this selfish desire for position that brings failure at the peace table. This is why mankind, since the beginning of time, has been raped by war.

The last world war and today's Korean crisis give true testimony of the ghastliness of hostilities. Early in 1943, many newspapers carried a picture of two Filipino prisoners of war, standing beside the wreckage of what was once a home. One had had his eyes burned out, and the other had his tongue brutally cut from his mouth. After being freed by the Japanese, one was to lead the way, while the other was to do the talking. This is one incident of one war. Magnify it a million times and still we would not visualize the awful totality of war's terror.

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The Gobelin Tapestry, "Diana the Huntress," was donated to Notre Dame by Mr. and Mrs. Harry Sugar, of Akron, O. This tapestry was formerly in the Bendix collection and exhibited in the Wightman Memorial Art Galleries, at Notre Dame, from 1933 to 1944. It was woven by Philip de Maecht and is signed with his monogram.
Handicapped Children
(Continued from page 10)

In order to educate handicapped children, a teacher must know the problems involved and the newly devised methods of treating these problems. Yet, segregation of the children is not the aim. It is, in fact, definitely discouraged. Most handicapped children suffer from an inferiority complex to begin with. They feel “different.” Segregation only makes them worse. The Workshop at Notre Dame attempted to show the teachers how to improve the educational program for handicapped students in their schools.

The necessity of changing the attitude toward the handicapped was brought to the public’s attention through local newspaper accounts and radio broadcasts of the Workshop. Handicapped children are a burden on society only if society makes them so. There must be an effective orientation program both for the children and the general public if society is to benefit from the handicapped.

Speaking of the Workshop and its results, Dr. Kohlbrenner stated that although this was Notre Dame’s first venture into this field he hoped that something specific in the way of technical training for teachers would come out of it. No definite plans have been made for next year; however, there is every chance that a similar Workshop will again be sponsored. Too little has been done in the field of education generally for the assistance of our handicapped children, but progress was made by the Workshop in Special Education held at Notre Dame. If given half a chance to fulfill their own capabilities, these so-called handicapped children will contribute more than their share toward making ours a better society in which to live.

Metals Fellowship to ND

A fellowship in metallurgy at the University of Notre Dame has been renewed for the fourth consecutive year by the Union Carbide and Carbon Corporation of New York City, according to word received at Notre Dame from the corporation.

The $2,500 Union Carbide and Carbon Corporation Fellowships for 1951-53 will be held by S. C. Das Gupta, of Calcutta, India, a graduate student in the Department of Metallurgy at Notre Dame.

Mr. Das Gupta’s research project is concerned with the hardening qualities of steel. Specifically, the Notre Dame graduate student’s experimentations consist of research with a microconstituent called “Martensite,” which is responsible for the hardening of steel.

BULLETIN

Frank C. Walker, of New York City, former Postmaster General of the United States, has been elected President of the Associate Board of Lay Trustees at the University of Notre Dame.

Mr. Walker, who currently is serving as National Chairman of the University of Notre Dame Foundation, succeeds I. A. O’Shaughnessy, President of the Globe Oil and Refining Company, St. Paul, Minn., as President of the board.
ATOMIC ENERGY:
Protection Against Radiation

Important Research Program Undertaken by Notre Dame Priest-Scientist

By James W. Frick

Mr. Frick graduated from Notre Dame in June, 1951, with a degree in Business Administration. He served in the U. S. Navy for four years during World War II, and was attached to the Marine Corps. Mr. Frick was employed as Correspondence Clerk for Employment Security Commission in North Carolina after being discharged from the Armed Forces. As an undergraduate at Notre Dame, he worked in the Department of Public Information office. Currently, he is on the campus staff of the Notre Dame Foundation.

Mr. Frick in the lab of Radiation Biology attacks the problem of 'protection' through study of virus.

The air-raid siren sounds. Enemy planes approach. A bomb is dropped — an atom bomb — dropped on Chicago's North Shore Drive in a stiff south wind. Five seconds after the blast, the familiar mushroom cloud is seen perched jauntily in the sky. Two hundred thousand people have been killed by the blast outright; perhaps another eight hundred thousand will die sooner or later from exposure to radiation — the radioactive substances released by the explosion. It is this tragic picture that the words "atomic energy" paint in the minds of the vast majority of Americans. Few people realize that a great number of scientists are working on peace-time application of this harnessed energy. But whether in peace or war, the use of atomic energy presents a very important problem: protection against radiation.

It is impossible to protect intelligently against anything unless it is known what to protect against. The radioactivity generated by atomic energy is a very subtle hazard which is even more dangerous than the destruction wrought by the bomb. Why? Be-
cause a person exposed to these rays not only suffers radiation damage himself but also passes certain harmful effects on to his progeny.

Control of or protection against radioactivity would neutralize the harmful effects of atomic energy whether applied in war or peace. Toward this end a very humble priest-scientist, Rev. C. S. Bachofer, c.s.c., is working constantly in his laboratory of Radiation Biology at the University of Notre Dame. Father Bachofer received his undergraduate education at Notre Dame. Graduate work was done at the Catholic University of America and he received his doctorate from the University of Chicago in 1948.

Many scientists around the country are engaged in similar research because of its tremendous importance. And the points of view from which the problem is being attacked are about as numerous as the number of scientists working in the field. The singular or contributing feature of Father Bachofer's work lies in his method of attack — a logical progression from the simple to the complex. He is using the virus, which is the most simple, elementary form of life, as his "guinea pig." And why the virus? Because its biological simplicity makes it excellent experimental material for explaining exactly what happens when living systems are exposed to radiations.

To the question, why did you start in such research, Father Bachofer answers, "My reasons for undertaking such a project are an intense interest in this important work. It presents a challenge that we enjoy meeting. But, what is more important, we must work hard to come up with some method of protection against high energy radiations before atomic energy can be used efficiently. We must train well-qualified students in this field to carry on, to devise a neutralizing good for each destructive force unleashed. If and when we discover a means of protection against radioactivity, it will not only save countless lives from direct radiation but it will also save posterity from certain harmful effects of ancestral irradiation injury."

The experimental work presently in progress was first undertaken by Father Bachofer at the Argonne National Laboratory in Chicago, during 1949-50. Father Bachofer was at Argonne doing research work for the Atomic Energy Commission. Considerable time was spent developing techniques whereby the viruses could be given definite doses of radiation under carefully controlled conditions and the effects of these high energy rays accurately checked.

While working to interpret the action of high energy radiation on these viruses, Father Bachofer discovered certain changes taking place in the viruses after being "hit" with these rays, which the other scientists at Argonne agreed should be investigated. At this time, however, Father Bachofer was recalled to the University of Notre Dame to teach Radiation Biology. Immediately, in his spare time, he began setting up facilities comparable to those available at Argonne for the irradiation of viruses with the view of finishing the work. An X-ray machine with all attachments, a vacuum chamber, Geiger counters and other basic material for the handling of radioactive isotopes were procured. As the research progresses additional apparatus will be necessary. Concomitant with setting up this equipment — testing, calibrating and improving it, and also improvising here and there — Father Bachofer and his assistants worked with the members of the Radiation Chemistry Project here at Notre Dame during the past year attempting to shed light on the mechanisms involved in the killing of viruses with nuclear energy chiefly from high energy generators.

It is only by understanding what

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Atomic Energy
(Continued from page 19)

vital processes, what inner workings in the viruses have been disturbed, damaged, destroyed or in some way affected by a dose of radiation that it is possible to eventually come up with a method of protection. It can be compared with the patient and the doctor. No matter how bad a patient feels, there is nothing the doctor can do until first he learn what the cause of the malady is. When these viruses are hit with high energy radiation the exact effect of the radiation on the viruses must be determined before any thought can be given to protective measures. The better it is known what to protect against, the more effective should the protective measures prove to be.

When the principles of protection for the viruses have been established, Father Bachofer and his research assistants propose to test them on higher forms of plant and animal life for validity. From there it is just a step to man.

When may we expect protection from radiation? To this question Father Bachofer answers, "To think that a scientist pulls discoveries out of a test tube is folly. Oh, it happens every once in a while but usually it's a long, hard struggle. It may take years to come up with adequate protection against radiation damage. But the spade work has been done and as long as the research is continued there is a good possibility and even probability that effective protective agents will be devised, and then our panicky fear at the mention of atomic energy will give way to a wholesome respect for its power."

How About 5 Per Cent
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corporation giving has too often been the fear of criticism rather than the expectation of advancing specific interests and making a positive contribution to the general welfare. Because they have given haphazardly, corporations have often exerted little influence upon the beneficiaries of their donations. But the number of corporations having positive programs is constantly growing. Thus the Ford Motor Company inaugurated this year a plan of providing annually for children of its employees 70 scholarships for full four-year undergraduate courses in accredited colleges and universities as chosen by the beneficiaries themselves. A significant feature of a Ford scholarship is that it not only covers most of the tuition and living expenses of the student but also includes an additional grant of $500 per year to the educational institution selected by the student if it is a private one—this in recognition of the fact, mentioned above, that present tuition charges and fees are not enough to cover the costs of education per student. Sears, Roebuck and Company annually finances nearly a hundred undergraduate scholarships for students in land-grant colleges who plan to make agriculture their life's work. The Bulova Watch Company has established and supports a vocational school for training disabled veterans in watch repairing. And many distinguished corporations—including the Aluminum Company of America, the American Tobacco Company, the Proctor and Gamble Company, the Standard Oil Company of Indiana, the United States Steel Corporation, and the Westinghouse Electric Corporation—have contributed to the atomic research program of the University of Chicago.

One final aspect of corporation contributions remains to be mentioned, namely, urgency. The urgency of need of institutions of higher learning has already been indicated, but there is

Our Mutual Ends

"Now speaking as a corporation executive, although not officially as a representative of the company with which I am connected, I want to say emphatically that—in my opinion—every American business has a direct obligation to support the free, independent, privately-endowed colleges and universities of this country to the limit of its financial ability and legal authority. And unless it recognizes and meets this obligation, I do not believe it is properly protecting the long-range interests of its stockholders, its employees and its customers."

From a speech by Mr. Irving S. Olds, Chairman of the Board, United States Steel Corporation, Oct. 19, 1951.

also urgency in having corporation managements come to a decision as to the nature and dollar value of their objectives. The matter is urgent because contributions are deductible only if expended within the taxable year, or, at most, within two and a half months after the close of the taxable year if authorized within the taxable year. Contributions cannot be carried forward or backward to reduce the tax liability of other years. Thus little time remains in 1951 for the executives of calendar-year corporations to decide what they are going to do—yet great care in the formulation and execution of plans is necessary for wise giving. Nevertheless, care in giving and speed in giving can be reconciled. Messrs. Rumil and Geiger, in the pamphlet cited above, suggest that corporations which want to establish sound programs of contributions individually set-up tax-free corporations for educational, scientific, and welfare purposes, make their contributions to them, and then permit them—taking as much time as may be necessary—to work out their plans of “wise-giving.”

If You Should Go To Youngwood

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Must this continue? Is war inevitable? I think not. I say that Old Bill Sundray, and the other folks in Youngwood, and those who agree with them, are wrong. Peace is not a myth, nor an optimist’s dream. Peace can be permanent.

The first step to world peace is moral reform. It will be reached when individuals realize that they are social beings, and have obligations, not only to respect the rights of others, but to work together for the common good, to strive for harmony and order, for a society in which a person can raise his children without the ominous cloud of war hovering over them.

The means to this moral reform is not something new or unique. This standard of righteousness transcending the beliefs of all men, this norm of morality that can penetrate the nationalistic spirit standing like a great wall across the road to peace, this common denominator of moral thinking is the Golden Rule. If men live the Golden Rule with all its implications, our chances for a peaceful world are much stronger.

Now, the second step — World Government. Since peace is nothing more than order, and order implies working together, a harmonious world government is essential to the cause of peace. You and I know this, and Bill Sundray and the boys would know it too, if they would stop to think.

Perhaps there are those among us who do not believe in world government, because it has failed in the past. World government will always fail as long as nations are permitted to retain their sovereignty and to disregard the rights of other countries. An effective world society means that nations will be bound together, not by treaties—which merely unite the selfish interest of countries—but by laws, laws that will fuse these separate states into one.

Robert Humber, on the Town Meeting of the Air, defined the need for world government in establishing peace, when he said,

There is no peace without justice, no justice without law, no law without government. We are trying to do something today that is impossible of achievement— to govern a world community without government. It cannot be done. Anything short of government does not produce law. Anything short of law does not produce peace.

The third and final step on the road to peace is effort—effort on the part of all men to live the Golden Rule, to work for, and to believe in, World Government. But, there is something needed in our plan that would compel men really to want to exert effort for world government and moral reform. What is this something lacking in our plan? As I see it, wars have continued to plague mankind because they appeal to man’s selfish nature. If we were rid of selfishness, we would be far along the road to peace. But man’s nature will not, cannot, be changed. So, why not bring peace by making it the object of man’s selfishness; that is, impress upon each man—as it has never, never been expressed before—the terribleness of wars; the fact that he has nothing to gain from them, save misery and death, to see his loved ones tortured and killed, to have his city left a smoldering mass, and to observe his life’s work spoiled.

We must begin the peace movement—here—now—with ourselves, for if peace is to be accomplished, the movement must engulf all men. Only when the weight of the Golden Rule and the desire for a harmonious world will be felt at Council Tables, only then will peace be obtained. It requires but one country to start a way—one man to pick a fight—but it requires all nations and all men to keep the peace.

If you should go to Youngwood, stop by the porch of Zeke’s Tavern and tell Old Bill Sundray and the rest of the boys what we have discussed. You know, Youngwood is just down the road from West Salem, on U.S. Highway 38.

Bishop O’Hara Elevated To Metropolitan See

Most Rev. John F. O’Hara, C.S.C., bishop of Buffalo, N. Y., and former president of the University of Notre Dame, has been appointed archbishop of Philadelphia, Pa., by Pope Pius XII.

The new archbishop was Notre Dame’s 12th president, serving from 1934 through 1939, when he was named military delegate to the armed forces. He was dean of the College of Commerce from 1920 to 1924. During his years at Notre Dame, Bishop O’Hara founded the University’s daily Religious Bulletin and instituted a movement for the exchange of students with South American universities.
DEDICATED to the task of presenting the best in prose and poetry from student authors, the Juggler "became of age" with their Summer issue, 1951. Don't be misled, however, because the Juggler actually started publication quite a long time ago. For more than thirty years, the Juggler has been an outlet for student literary talent. Sometimes the title has been bounced back and forth with various and sundry names, but eventually it returns to being called the Juggler.

Dave Yerex, a Notre Dame alumnus in the Class of '51, wrote outstanding stories last year and helped to make the Summer issue a great success. He is now working on a novel in his native New Zealand. Other student writers showed remarkable insight and perception as well as fine prose style.

Essays and book reviews, in the Juggler, seemed at last to hit the epitome of Journalistic excellence. Many astute observers ventured the thought that the Juggler, as of last Summer, would rank as one of the leading college literary publications in the country.

Juggler writers have undertaken to analyze such authors as Leon Bloy, Nathaniel Hawthorne, and Aldous Huxley with critical thought and in a highly intelligent manner.

There has already been one issue this Fall with another scheduled in February. The big edition will come out in May carrying one hundred pages of student literary gems. A year's subscription may be had for one dollar and by writing direct to: The Juggler, Office of Publications, Notre Dame, Indiana.
but there's still time to give to the father cavanaugh testimonial fund in the following ways:

personal gift
corporation gift
wills and bequests
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gifts other than money

the father cavanaugh testimonial fund, 1951-1952, in tribute to notre dame's president:

$3,000,000 — for expansion of heat, power and water facilities;
equipment for new buildings; added sewage disposal system.

checks should be made payable to the university of notre dame and mailed to
the university of notre dame foundation, notre dame, indiana.

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