$621,000. The Program for a Greater University received another boost with the announcement of a $621,000 low-interest loan from the U.S. Government for the completion of two wings on Dormitory F, the newest of the men’s residence halls facing on River Boulevard.

The main portion of the building was finished last summer and with the opening of college in September was occupied by 186 students, mostly freshmen. The two wings will accommodate an additional 152 students and is expected to be ready this fall.

The $621,000 loan is from the Housing and Home Financing Agency. Bearing interest at the rate of 2.5% for 40 years, it is expected to be self-liquidating.

The Program for a Greater University includes a projected need of $3,300,000 for residence halls on the River Campus to house the anticipated enrollment of 2,500 by 1965. About 85% of the present enrollment of 2,111 undergraduate and graduate students on the River Campus live on campus.

FACULTY NOTES. Dr. Howard R. Anderson, until January 1st the dean of University School of Liberal and Applied Studies, now fills the new position of assistant to the president of the University. The position was created because of the increasing multiplicity of presidential responsibilities, the growth of the University, and the steady increase of institutional and educational problems. Dr. Anderson will continue as director of the Evening Session and of the Summer Session on the River Campus. Dr. Anderson joined the UR faculty in 1953 after having been chief for social sciences in the division of higher education of the U.S. Office of Education.

New dean of University School is Arthur L. Assum. Mr. Assum joined the UR faculty in 1954 and was made assistant dean of University School the following year.

Dr. D. Lincoln Canfield, Professor of Spanish and chairman of the Foreign Languages Department, has been awarded a Fulbright grant to lecture on Spanish linguistics at the Institute Caro y Cuervo in Bogota, Colombia for seven months starting this June.

Leaving the post of Deputy Director of the Acoustics Research Laboratory at Harvard University to become Associate Professor of Electrical Engineering in the College of Engineering is Dr. Hugh Guthrie Flynn. He will start his duties at the UR on February 1.

The New York Academy of Sciences has announced that Dr. Kurt Salomon and Dr. Lee B. Lusted have been elected fellows of the Academy. Both are members of the Department of Radiology of the School of Medicine and Dentistry. For the second year past his scheduled retirement Elmer H. Burnham will continue as football coach at the UR. In his 16 years at the UR Burnham’s teams have won 76 games, lost 46 and tied six. Dr. S. D. Shirley Spragg, Professor of Psychology, has been reappointed to a three year term on the New York State Board of Examiners of Psychologists.
NEW HOPE. The almost one million people in Western New York have a new weapon available in the fight against cancer that may be inflicted on a large percentage of this population. The Radiation Center at Strong Memorial Hospital of the University’s Medical Center is one of the most completely equipped facilities in the nation. Costing $100,000, the Radiation Center is designed for the diagnosis, therapy, teaching and research in the problems of cancer and related diseases.

Radiation may also be used to treat benign conditions, such as bursitis and arthritis.

The most modern radiation machines for the treatment of disease have been installed, including two huge supervoltage X-ray devices—a two-million electron volt Van de Graff generating unit, the most powerful in upstate New York, and a Cobalt 60 rotational unit emitting radiation of between one and two million volts.

Each of the large supervoltage machines is in a separate room with four-foot thick concrete walls, and in each room there is a window through which attendants may view the patient and the patient in turn may see the attendants, eliminating the fear of being left alone that understandably affects many patients. The windows, designed by the Corning Glass Works, are three-tiered and 24 inches thick, and cost $5,000 apiece.

The big machines are designed to deliver greater dosages directly to tumors more effectively and in a way that the patient can tolerate more easily, with a resultant minimal damage to normal tissues.

The Radiation Center, housed in its own new building on the Elmwood Avenue side of the Medical Center, also has two conventional orthovoltage 250 kilovolt range machines and a 140 kilovolt superficial X-ray generator for treating superficial lesions.

The primary function of the Division of Radiation Therapy is in the realm of clinical services for diagnosis and treatment. The group will continue to supervise the use of radioactive isotopes in a much wider scope in conjunction with other clinical departments in the Medical Center. Almost every clinical specialty is now served daily through clinical application of isotopes.

The Radiation Center at Strong Memorial Hospital was made possible by a $203,200 grant to the Hospital by the John A. Hartford Foundation, Inc., for the purchase of equipment and payment of part of the $150,000 operating costs for three years. The University of Rochester provided the new building and pays the balance of the operating expenses.

THE SOUND OF GOOD MUSIC. "Dedicated intensity...perfection in detail...unadulterated purity of tone..." This praise is for four new recordings made under the aegis made possible by a $203,200 grant to the Hospital by the John A. Hartford Foundation, Inc., for the purchase of equipment and payment of part of the $150,000 operating costs for three years. The University of Rochester provided the new building and pays the balance of the operating expenses.

Record shops across the country are featuring two new recordings of seldom heard marches by the Eastman Wind Ensemble, conducted by Dr. Frederick Fennell. One is "Hands Across the Sea" and the other is a second volume of "British Band Classics."

Dr. Fennell is also conductor of the Eastman Rochester Pops Orchestra in a recording of familiar music of Percy Granger.

NIH. Two grants totaling $513,240 bring to over $2,000,000 the research funds received by the University in the past three months from the National Institutes of Health.

The latest awards are $345,455 for graduate training in dental research and $167,785 for continuing a pharmacology department study on poisonings of children from chemicals and medicines commonly found in homes and on farms.

The dental grant, the largest ever received by the Department of Dentistry and Dental Research, is in addition to a $175,000 award received in 1957. Effective in five annual installments, the new fund will provide for four full-time dental fellows and for general support of the dental research program.

Some 41 such research and training projects are being carried on under the NIH grants. The $2,000,000 is allocated for specific projects and is in addition to University funds already being used to support such work.

CULTURAL EXCHANGE. The Eastman String Quartet will tour the middle East this Spring as part of the cultural exchange program of the State Department. The tour is being sponsored by The American National Theatre and Academy. Members of the quartet are Joseph Knitzer, first violin; John Celantano, second violin; Georges Miquelle, cello; Francis Bundra, viola. Still in the discussion stage is the possibility of a tour of Scandinavian countries by the Eastman School Philharmonic Orchestra and other student performing groups. The invitation for the tour was extended by Jouko Tolonen, director of the Finnish National Opera during a visit to the school in November. The main cost would be borne by the Finnish government under its cultural exchange program, it is understood.

CAMPUS CENSUS. Enrollment at the UR this year totals 7,014 full and part-time students at both the undergraduate and graduate level. More than half (3,744) are full-time students. By colleges and schools, the enrollment is as follows: College of Arts and Science, 2,204; School of Business Administration, 227; College of Education, 480; College of Engineering, 173; University School, 2,708; Eastman School of Music, 596; School of Medicine and Dentistry including the Department of Nursing, 626. There are 643 full-time graduate students at the University, of whom 387 are pursuing advanced degrees in colleges and schools of the River Campus, 139 at the Eastman School of Music, and 117 at the School of Medicine and Dentistry. In addition, there are 464 part-time graduate students at the River Campus and 32 at the Eastman School.

BRIEFS. The UR chapter of Tau Beta Pi, national honorary engineering society, has established a fund to provide for an annual prize to be awarded to the outstanding senior engineering student at the University. Over 200 medical alumni returned to the Medical Center for a two-day meeting last October during which they heard some 18 scientific papers... Can electronic digital computers produce musical compositions? Dr. Lejaren A. Hiller, Jr., of the University of Illinois tried to prove it to Eastman School of Music students during a program sponsored by the University Computing Center last November... The College of Engineering staged its first public open house in December; the public was invited to view academic displays and equipment in operation.
“In taking a firm and at times unpopular stand on the matter of nuclear testing,” says Dr. William F. Newman, “I have found myself playing unusual roles: doubling in brass as scientist and politician, with a bit of the preacher thrown in. People always want to know about fallout — its possible effect on the genes and so on. As a biologist, I feel an obligation to speak on these aspects, even though the biological argument may be quite beside the point.” For the Rochester Review as for his many lecture audiences, the University Professor of Radiation Biology takes up both sides of the fallout question—and a third side as well.

Science, as such, represents only one aspect of the problem of nuclear testing; there are political, economic, religious and military overtones that color any thoughtful man’s decision about whether or not these tests should continue.

Yet it is to science, the newly elected oracle of the atomic age, that people direct their questions; and we scientists respond with a shower of answers whose ambiguity would do justice to the original at Delphi. Not that the available scientific information is vague; indeed, we scientists can fortify any of our statements with a fine array of facts and figures. But how puzzling it must be to the layman to see men armed with identical “facts” arrive at such disparate conclusions!

When the ordinary citizen asks, “Am I, or are my children, in danger?” he may get placid reassurance or the fright of his life, depending on the interpretation of the scientist to whom he addresses his question. The facts, you see, require interpretation; by themselves, they are almost meaningless. And, interpretation introduces the element of human judgment. Since there are always several ways of approaching any problem, the same set of “facts” serves as a springboard from which the scientists soar off in all directions.

It is helpful to compare the two extreme views; one would ordinarily expect that the truth must lie somewhere between these two extremes.

1. Taking the calmer view, one could say that, at low levels, comparable to the background radiation to which we are exposed every day from cosmic rays and the earth itself, no one has demonstrated any ill effects. In fact, some experiments show that animals live longer than normally when exposed to very small amounts of irradiation. And present levels from fallout have raised the population’s exposure only a little above natural background.

2. Again, an assuager of alarm could give his opinion that Strontium 90 has been overemphasized. It is only one of the by-products of nuclear explosions. As a heavy nuclear fuel such as uranium or plutonium undergoes fission a whole host of small nuclear fragments appear; nearly all of the elements in the middle of the atomic table are formed. Nearly all of these are radioactive, but, for the most part, they rapidly dissipate their radioactivity high in the atmosphere. In undergoing this harmless transformation, they become ordinary substances which cause no hazard.

1. But we can point to genetic studies indicating some likelihood that all radiation, however small, is harmful. Epidemiological studies do not yet “prove” anything, but they strongly suggest that natural background irradiation might be responsible for at least part of the genetic defects, the leukemias and cancers which plague our population naturally. From this it follows that raising background will increase the numbers of people so afflicted.

2. Any well-informed colleague would agree that most radioactive fragments do rapidly become nonradioactive. But this is the very reason Strontium 90 isotope has received the greatest emphasis. It has a long life, averaging 40 years; it is one of the most important fission products in terms of amount produced, it gets into the food chains leading to man; it concentrates in the skeleton and it stays there. Experimentally, Strontium 90 has produced bone tumors in animals. Although these experiments have involved levels much higher than those yet encountered in fallout, it is reasonable to expect similar effects — less severe, perhaps, less frequent—from fallout.
without a silver lining

3. In a more alarming presentation, the dietary problem can be summarized simply: "fission products are widely disseminated, and all foods are contaminated." Further, the radioactive ash from small weapons is dispersed below the stratosphere, circling the globe in a narrow band which coincides with the greatest food-producing areas for the bulk of the world's population. Even large weapons which deposit their debris in the stratosphere are showing a preferential fallout in the northern latitudes, the most highly populated regions.

4. Since Strontium is produced only by fission, it might be argued that we could reduce the danger of radioactive fallout by testing only "clean" or fusion bombs. In fusion, isotopes of hydrogen are converted to non-radioactive products such as helium, and the hazards from fallout are therefore minimized.

So it goes, the biological argument about radiation taking the form of urgent distress on the one hand and uneasy placation on the other. But biology and physics are not all that is involved in our problem. There are socio-political considerations. Unfortunately, we again find two sides to the argument.

1. The tests permit a continuing improvement of our nuclear arsenal on which we are now completely dependent.

2. It is difficult to arrange an inspection system which can insure against violations.

3. It is morally wrong to let freedom die by failing to maintain a competitive retaliatory capability.

1. They also permit continuing improvement of Russian capabilities (at a faster rate?) and open the door to fourth, fifth and sixth nuclear powers.

2. It will be exceedingly more difficult with passing time as new powers enter the race.

3. It is morally wrong to pollute the atmosphere of all nations in pursuing our own national interests.
4. Only by improving our retaliatory power can we avoid World War III.

5. Disarmament in any form only precipitates war by encouraging the aggressor nation.

6. Improving the quality of our stockpile will improve chances of successfully meeting "brush-fire" aggressions.

4. Preparation for war never prevented war. A large portion of the world would be destroyed if our present capabilities were employed, and the genetic consequences can only be guessed at.

5. It is silly to build huge reservoirs of weapons that cannot be used. The economic strain of an arms race greatly increases the chances of a war.

6. If the situation is serious enough to warrant nuclear weapons it is not a brush-fire engagement. A stalemate is the best decision to be hoped for in such a case. Both sides must agree in advance not to use weapons large enough to be decisive.

And this is the substance of the argument. We have summarized the two extremist views, with no clear-cut "middle of the road" position between the two extremes. Were this the end of the matter, we would all be hard put to reach a decision.

But, the third position is not in the middle. It lies outside the extremes of alarm and assurance, and so clearly outside, so plainly in view that like the proverbial nose on the face, it cannot always be seen.

It is simply this: Biological hazard of fallout is not the primary factor in deciding about the continuation of nuclear tests.

The fact that does determine the advisability of a ban on testing is that nuclear weapons are too hazardous to use. And if you cannot use them, why test them? Why stockpile more weapons than we dare explode?

It is clear that, in military terms, nuclear weapons have already been developed to a point of absurdity. We dare not use what we already possess.

It is clear, too, that the Russian government recognizes the absurdity of nuclear weapons and nuclear warfare, and that they are resigned to a long period of strained, yet peaceful, contention. They are convinced that they will ultimately succeed in achieving world domination peacefully—that they will "bury us."

We are not in danger of getting into a war; we are already in a war. The weapons are not nuclear but ideological in form. We cannot, in such circumstances, spend all our efforts on maintaining a balanced budget and testing bombs. We have real and big problems to solve.

Space research, education, integration, the world population bomb, developing the industrial capabilities of backward nations . . . these are the real and pertinent issues which deserve our inspired efforts.

We have already delayed too long in our soul-searching, seeming instead to prefer endless argument over the hazard of fallout. Is it perhaps a new form of the old isolationist dream, this construction of an atomic barrier? Do we seek to preserve our civilization with explosives? If so, we will find ourselves disappointed . . . surrounded by golden trinkets, yet alone.

It is not the golden touch that is wanted, but rather the common touch. The voices of seething millions are crying for assistance—assistance not to be measured in terms of automatic dishwashers and TV. A parade of our wealth can hardly amuse these millions; nor is the common touch likely to be achieved by setting off firecrackers, however big they may become. If we must put on a show for the world, a mushroom cloud is the least suitable display we could choose.

It is time now for constructive efforts, for the sincere lending of our great scientific talents and natural resources for the advancement and enlightenment of man. We simply cannot afford to go on sending our financial and intellectual resources up in smoke, only to get them back in atomic ash.
So That the Future
May Know of the Past

T he historian, one of the oldest and hardest of the academic breeds, has survived many a dusty century by handing down to qualified successors his own knowledge, his techniques of inquiry and, subtly, his manner of transmitting ideas.

But lately the system has hit a snag, and all across the country history departments are aware of a shortage of historians-in-training at the more advanced levels. To discover the reasons for this shortage, an American Historical Association study is now in progress, supported by a Carnegie grant and headed by Dr. Dexter Perkins, UR professor emeritus of history and visiting professor at the River Campus.

Too few superior students can afford the sustained expense of several year's graduate study, the AHA committee finds. Moreover, the present shortage of qualified college history teachers compounds itself as the work load of each teacher increases, leaving him too little time to nurture the successors he needs for his own relief.

More significant than these is the fact that in most doctoral programs there is too little emphasis on the teaching function, as distinguished from the research function, in the training of historians.

One solution now commanding the attention of the profession is a program Dr. Perkins started twelve years ago at the University of Rochester. Aimed frankly at training effective teachers, the UR fellowship program for doctoral candidates in history has produced, or is producing, 57 such qualified men and women. The UR program gives fellowship aid to ease the financial burden on students, while careful selection of candidates limits the demand on University faculty members to the number that can be effectively trained.

Under faculty supervision, each candidate handles three discussion sections in the University's undergraduate survey course during his first year. In the second year he goes on to deliver ten lectures in an undergraduate course, with the course instructor advising him on preparation, listening to his delivery and subsequently criticizing his performance.

Toward the close of his first year, each candidate is asked to supervise the planning of programs for five sophomores who will concentrate in history during their junior and senior years. Throughout the graduate student's second year of study he acts as adviser to these same five students, thus developing the important counseling skill that is part of college teaching.

Meanwhile, his own study goes on in seminar courses that cover both development of research techniques and the verbal and literary transmission of ideas. Such seminars as philosophy of history; bibliography and criticism; relations between Europe and America, and others are designed to broaden the scope of his training in history. One key course is a seminar on the great historians, in which the student becomes familiar with the literature and the thinking of historians who wrote well.

Originally, only five candidates could be admitted to the program each year, all of them in U. S. history. Within the past three years the program has been expanded to include European history, and this year enrollment was increased to admit nine new graduate students—the five UR fellows plus two students on Canadian Studies stipends, one New York State Regents fellow and a Woodrow Wilson fellow.

If finances can be obtained from outside sources, history department chairman Dr. Glyndon G. Van Deusen predicts, the program should double within the near future. An enrollment of 60 is expected by 1963.
Amahl
IN THE OPERA WORLD, a special form of Christmas shopping is the annual search for a boy soprano young enough to sing "Amahl" and old enough to carry the poignant role of the cripple in Gian-Carlo Menotti’s tale of a Christmas miracle, "Amahl and the Night Visitors."

In Rochester this year, a seasoned performer for the role was already on hand: young Tommy Canning, who sang "Amahl" in the UR production given especially for alumni in the 1958 Christmas Candelight Buffet and Concert. Enthusiastic reception of that performance—which led to two repeats last year—prompted the Eastman Theatre to offer "Amahl" for its citywide audience this year. Playing to a packed house, 12-year-old Tommy was again a credit to his Eastman-grad parents, composer Thomas Canning (’40) of the Eastman faculty and Ruby Morgan Canning, ’42.

"Amahl" provided a rare opportunity for inter-campus cooperation, with Eastman School’s Leonard Treash as director-producer, and River Campus music director Ward Woodbury conducting the Rochester Civic Orchestra and the UR Chapel Choir.

In leading roles were Eastman students Shirley McGaugh, as the mother; Brian Crabb, Robert Murray and Edward White as the three kings; and Jerry Crawford as the page. The River Campus Modern Dance Club and the Eastman Opera Theater completed the cast, with Bertha Brush, Carolyn Moss and Sandra Siegal as principal dancers.

While "Amahl" is a prize role in opera, it is one that no performer has much chance to make his permanent possession. Already the signs of approaching adolescence—fast physical growth and the hint of a changing voice—tell Tommy Canning it’s time to retire. It’s a short career for the Amahls of the music world.
IVAN CAME TO THE FAIR

The questions he asked are more important than the things he saw at Sokolniki Park

by NORMAN P. NEUREITTER, '52

Photographs by the author

When the Cultural Exchange agreement between the United States and the Soviet Union was signed by both parties in December, 1958, the eighty young Russian-speaking Americans who were eventually selected as guides to the American National Exhibition in Moscow were given a very exciting opportunity. For my wife of thirty-six hours and myself it turned out to be a hectic, at times wearisome, but immensely fascinating honeymoon. For two months we lived in a medium-priced hotel at the edge of Moscow some twenty minutes away by special bus from Sokolniki Park and the American fair. On our off-hours we wandered about the city talking to people, attending the theaters and cinemas, looking at the parks, shopping in the stores, going to the museums. It was quite an experience to live in that world—for it is very different. The people are not much different from people anywhere. Physically (with some reservations for their diets, generally more physical labor, and somewhat less attractive clothes) they are probably the most American-looking people in Europe. If one talks to them, they all want about the same things out of life that most people here want, but they live in a society which is organized to try to give them these things in a very different way.

In the forty-two days of the exhibition nearly three million people wandered about the fairgrounds to look at a very credible collection of American gadgetry, household items, clothing and consumer goods, including eighteen automobiles, a color television studio and a model home ($14,500). On the whole they were not unfavorably impressed. But, much more than the sight of objects, they wanted to talk with Americans. When, as a guide, I talked about my exhibit ("We are currently producing on this injection molding machine 500 polyethylene cups per hour at a pressure of 140 atmospheres and 315 degrees") I had perhaps fifty people listening. When I began answering questions about myself, my family, my education, the background of my parents, my salary, my living expenses, my job, my marital status, the American unemployment problem, the average American worker’s income, whether or not he can live on that, the system of medical fees and care, juvenile delinquency, strikes, labor unions, social security, there were immediately two hundred persons who would listen for hours. The faces changed, but not the questions.

It was obvious to all of us that the average Russian lives in unbelievable ignorance of American and Western capitalism. To him this country is a haven of sixty imperialistic, war-mongering billionaire families and 170,000,000 poverty stricken workers who manage to survive through the philanthropic whims of the profit-hungry, capitalist bosses who control the industry, the press, the government, and the foreign policy of America. The Russian knows nothing of the middle class in this country or of the businesses which only render services. His picture of America has been consciously created by the state-controlled communications media.

Great skill is used in selecting American newspaper or magazine items and then reproducing them—all too often out of context—to intensify this typical picture of America. Capitalism is still portrayed as the same system which Marx saw in England more than 100 years ago. All events in the world are seen in terms of the class struggle still raging in the West; and all news of this world is interpreted in the phrases of dialectical materialism.

Caramels up 450%

At the same time, oddly enough, America is constantly held up to the Russian people as the paragon of technological and industrial achievement; as being the one nation in the world the Soviet Union has yet to surpass. The present Seven-Year Plan is an economic blueprint for every conceivable aspect of the national economy (even to an increase of 450% in the production of caramels with cream fillings).

So at one time America is both the model and the great taboo. I’m sure this paradox is what made the people ask so many questions. They wonder: "Can it really be so bad there if we are supposed to emulate them?" Before the fair opened the guides worked with the Russian laborers (both men and women) in finishing the construction. The noon hours became great discussion periods for practicing Russian as well as getting a preview of questions to come. A truck driver listened silently one noon hour as I defended myself and America’s point of view against a very insistent, well-prepared agitator. The next day the driver came back alone with a copy of the morning Pravda and asked me if the article—complete with statistics—on the New York slums were really true. There ensued a very interesting talk about good and bad in America; why bad does exist and to what extent it is typical of our country. Hearing Americans discuss American problems made a great impression on the Soviets.

In general as we talked to Soviets, we realized a great barrier exists between us. They have grown up thinking in absolute terms. (This did not seem so true of many young students with whom we found much in common.) The world is full of blacks and whites and there are no grays. The Western concept of compromise which recognizes perhaps all too completely the rights of an individual minority in the group is inconceivable to him. There are rights and there are wrongs and very little in between.

The structure of Soviet society is such that he cannot help
but think this way. The ultimate of human society has been defined in specific terms, "the Communist Society." It lies far in the future (some said twelve, some said twenty years), but will evolve out of today's socialism on the firm industrial base which is now being created. Supposedly a new communist man will likewise evolve to populate this eventually attainable, if atheistic, "heaven on earth." In their history schoolbooks children learn that the fields are their fields, that the trains they ride on are their trains, that a combine working on a collective farm is their combine harvesting their grain. We met many people who at one time or another had run afoul of the regime and had this outlook perverted, but nonetheless, this concept is alive and obviously accounts for part of the great enthusiasm with which Russians approach their work and their studies.

The specific achievements and the superb public relations job in behalf of the new society have had an effect. Anyone who publicly puts his personal gain or advantage above that of the society as a whole is a "deviationist," an opportunist, or a degenerate bourgeois, and automatically, he is to be publicly censured or even purged. The goal is, I think, to attempt to arouse public consciousness to the point where the society almost purges itself.

The danger point is where anyone who is not obviously for the new society is considered against it. The idea is to make it such a disgrace to commit a crime or to act in an "uncultured" or "anormal" fashion, that the guilty party will be almost automatically ostracized by the people.

Although few talked about the plain clothesmen and secret police that were everywhere about the fair grounds, their presence was felt by many of the Soviet visitors to the fair. Russians who talked too intimately or too privately or perhaps exchanged addresses with an American guide on the fair grounds were often arrested immediately thereafter. These people were taken to a convenient police station—about 200 yards from the exhibition gate. Some were held a few hours, some only a few minutes. Their names and union card numbers were recorded, they were given a talking to, reminded of the achievements of the Soviet Union and of why they should not be so interested in foreign countries, quizzed in detail on their conversations with the Americans, told they should be ashamed of themselves, and sent on their way. One young fellow to whom I had been speaking and who had been arrested saw me later and bitterly commented, "Well, that's our democracy!" Many of these people would return to the fair the next day to tell us of their experiences.

With their centralized planning and budgeting for doing research and applying the results, they have some advantage over America. They do not have a series of large companies with separate research groups all competing for the first breakthrough development or the critical patent for economic advantage, say, on a particular new plastic; but rather the results of all plastics research done in the country will immediately be made available to all groups concerned with plastics production. Research efforts of institutes, academic facilities and plant application groups are pooled very effectively. In space research there is no separate army, navy, or air force all competing for the same funds, nor is there a particularly tax-conscious electorate to whom federal research expenditures must be justified. For American-style competition they had only scorn. When I mentioned to the crowd at the fair that I was employed as a research chemist with a large oil company working on the polymerization of propylene for a new plant, I was sometimes asked by a smug Soviet: "Can you tell me what catalyst you are using in the process, or is it a secret of the firm?" He usually looked a little disappointed when I gave him the answer.

**Illiteracy Down to Zero?**

It was interesting to see what idols are held up to Soviet youth: Nesmayonov, head of the Academy of Sciences and an organic chemist; Sholokhov, author of *The Quiet Don*; Ulanova, the prima ballerina at the Bolshoi; or a laborer in industry or agriculture who has far exceeded his norm and has been awarded the medal of a Hero of Socialist Labor. Learning and academic achievement are held in high esteem. People

"My wife, Georgine, served up free Pepsi-Cola to the Russians. It was consumed at the rate of 70,000 cups per day with mixed reactions ranging from 'horrible; tastes like shoe polish' to 'excellent; give me another.'"

"The 'blur' is a colleague distributing samples of the little ice cream cups we were making with the polyethylene injection molding machine. (I am at right.) With the limited supply of cups the crowds became uncontrollable, and the sample giving had to stop."
read books everywhere; there are even little bookstands in the foyers of many movie theaters as well as on the streets. It is a disgrace not to take advantage of the privilege of learning. In schools there is no discipline problem. People told us that illiteracy had been eliminated. This may not be true, but it is clear that the change since Czarist days is profound.

The Cold War and the question of peace versus war were constant topics raised by the Russians at the fair. They urged us, with deep and genuine friendliness, not to attack them and to take the message of "peace and friendship" back to our people. They talked of their suffering in the war and begged us not to let it happen again. It was difficult trying to convince them that our atomic bases ringing their country were for American defense, built only after years of Soviet provocations. Only one Soviet ever mentioned war in other terms. He was an aeronautical engineer who had had too much to drink. He bought me a meal one night in a restaurant and said during our conversation: "You Americans better not attack us; because what we're building out at my plant will blow you people right out of the water if you do."

One tends in the United States to hear the word "slavery" applied to the Soviet system and "freedom" to the American system. It is of course very comfortable to use terms such as these, but they are not very realistic. Vice President Nixon as well as some of us guides were given embarrassing moments when Russians challenged us on the Enslaved Nations Resolution—adopted with immense ill-timing in the American Congress just a week before the exhibition opened. Khrushchev more than once in front of cheering workers urged Nixon to point out the slaves.

To Whom is One Man Necessary?

A Soviet artist may paint something impressionistic or abstract in his attic, but he may not exhibit it publicly and cannot sell it. The only legal customer, the State, will not buy it since such art is considered symptomatic of Western degeneracy. Hence he cannot live by painting abstractions. We had many arguments on this topic with Soviet citizens, most of whom took violent issue with the half dozen modern abstractionist paintings which hung in the art exhibit at the fair. They considered them idiotic daubings unsuitable for public display. For us as guides the challenge was not in defending one painting as good or bad before the crowd's onslaught, but rather in defending the right of the artist to paint that which had meaning for him, and then subjecting it to the judgment of time to decide whether or not it would remain as great or meaningful art. The Soviet reply was that if it was neither instructive nor understandable nor meaningful to the people it had no right to be created, for the prime requisite on art was that it had to be comprehensible to the narod—the people. In a very strained discussion with a scientist acquaintance in Moscow, I suggested that perhaps a given painting had meaning and importance at least to the artist and hence its creation was justified. His answer was a disdainful, "To whom is one man necessary, especially if he's slightly mad?"

Dogma to Doggerel

And I think that perhaps in this phrase is to be found a hint of one of the two things which to me were basically so intolerable about the Soviet Union; the man out-of-step or with off-beat ideas is not tolerated; there is no place for individual expression. It is not necessarily represented by direct Stalinist arrest or threat, but rather by the hostile intolerance of a created public opinion. It is clearly a place where conformity is desirable, and where, at least publicly, the monotonous similarity of ideas and opinions is unbearable. It was like a breath of fresh air when we came upon a Russian standing at the American art exhibit hour after hour defending the abstractionists against the derision of his fellow citizens. And this sort of thing did happen. One day in disgust at his questions and comments, I challenged an agitator to honestly tell me if all the people in the crowd really had identical opinions on Dr. Zhivago, on modern art, on rock and roll, in short, on everything. It was reassuring to have his answer vigorously disputed by the other Russians when he loudly proclaimed, "Yes, we all think the same here." A favorite story among the guides originated at the art exhibit. After a long harangue by one of the hecklers in response to a guide's comments, a Russian who had been standing quietly by turned to the agitator and asked "Why are you lying to the American?" There was even a student song in reaction to the endless "Pass America" propaganda: (my translation)

We shall catch the USA in producing eggs, milk, and cheese so fine,
And then we'll pass the USA in puffing smokes and drinking wine.

"Is that a typical American woman?"

"Oh come on, it's not so bad..."
I think the one really exciting question that I had at the fair, and it occurred only twice among the thousands of questions, was: "What, in your opinion, is America's greatest problem?" "At last," I said to the crowd, "I have found someone who realizes that I am so much better qualified to criticize my own society than you people who have never seen it." During the subsequent discussion I hazarded the observation that "Each year the functions of America's government expand, that is, in form we become more socialistic." This was greeted by a loud mumuring among the crowd, partially of surprise, partially of pleasure. I continued, "And I think from what I have seen in your country that each year economic system becomes more capitalistic." This brought down the house, from hoots of "nonsense" to open laughter. The Russians loved to talk about things like this and they loved hearing new ideas expressed openly by people who felt they could say anything they wanted. This is not to imply that they were agreeing or disagreeing with me; it is merely that they enjoyed these discussions. It was not at all that we were there to affect them or to shake their loyalty to their country. As President Eisenhower told all the guides before we left for Moscow: "Just go and answer their questions about our country sincerely and truthfully. No one will deny that America has problems; what is important is that America is concerned and is doing something about them."

The "Devoted" Are In Charge

My other basic objection to what we saw in the Soviet Union is that they have categorically defined an absolute right for all of society. They place in charge of realizing their destiny certain "devoted" and "exceptional" avant garde members of the narod who are called Communist Party members and upon whom there is no check or balance. If such persons are good, everything may be fine; but if they are power-hungry or opportunistic or vengeful or prideful—in short, if they have any human weaknesses, they can do a great deal of harm with their immense power, all in the name of the narod. I once asked a Soviet why it was two years after Stalin's death before his evils were brought to light. He pointed out that the narod had placed too much faith in Stalin, that they had thought he was another Lenin and had not realized his affinity with a cult of personality. It's a shame no one could vote him out of power until two years after his death, I reflected.

"... Haven't you ever been to the beach?"

There still were many people who were afraid to have Americans visit their homes, or to contact us openly in our hotels or even to call us on the telephone. Being suspected of too much contact with Americans—especially with US government employees or "agents" as we were—is highly undesirable in the USSR. It is difficult to sum up these two months in Moscow. I think I can say that we returned as super patriots and very partisan exponents of Western democracy. But at the same time, we were made very keenly aware of many of our own national shortcomings. We felt that for a Russian it is hard not to be a good citizen, but for an American to be an irresponsible member of his community is all too easy. We wanted to come home to do our share in cleaning up our American house to show a brighter reflection of the USA to the rest of the world. We were privately a little chagrined at what seems to be in many quarters the new American ideal, "Gimme." We wanted to do something about changing it.

At times I am really very pleased that America has this Communist challenge to her way of life. I am sorry that so much of it is in military terms. America is committed to two fundamental principles: one is the recognition of the sanctity and at the same time the fallibility of the individual; the other is the belief in the compromise of individual interests in organizing society. I believe that these principles are important enough for us to preserve them. Khrushchev's visit to America was in effect a challenge to us to meet the USSR on the grounds of peaceful competition. I think Khrushchev and many other Soviets believe that in time America will collapse from within (perhaps with occasional Communist prodding) while the Socialist countries will prosper. America should meet this challenge head-on. It should be met not with just a bigger and better hydrogen bomb, but, much more important, by the conscious acceptance of each American citizen's responsibility to his society. Let us not just flex our military muscles, rather let us strengthen ourselves from within, let us solve our own problems, eliminate our own injustices, and thereby demonstrate that America is indeed a fitting model for the peoples of the world.

Dr. Neureiter is with the Research and Development Division of the Humble Oil and Refining Company, Baytown, Texas.
THE TEACHING MACHINE?

A Tape-recorded Discussion by

ANDREAS: It's improper to speak of "the" teaching machine because a number of them are being tried out, at educational levels ranging all the way from elementary schools to college. The whole idea, though, is in a sense to automate the teaching process, gearing it as effectively as possible to actual learning principles. The machine is virtually a tutor of the child, working with the child at his own pace, giving him just enough information to keep him progressing through success experiences in acquiring greater and greater mastery over material. Probably the strongest thing we can say for the machine is that it's being built from learning theory outward, rather than being an attempt at automation of lecture technique or any other method merely borrowed current from educational practice.

FULLAGAR: Would you accept the statement that it's a rather low level of learning? That is, there's an action, then a recognition of consequences, which we've certainly accepted as a partial definition of learning. But in terms of the machine, the consequences you recognize seem to me to be pretty much the failure of a knob to turn. That doesn't seem a very inspiring consequence.

ANDREAS: No, I wouldn't say that. It is limited to factual material, but the complexity of this material can go rather high. In mathematics, for example, you can go from the common processes—addition, subtraction, multiplication and so on—all the way up through calculus.

BECK: I think the learning part is something that the child does on his own, while the machine merely prevents the proliferation and the perseveration of errors. The thinking is going to be done by the child as a result of reading, listening to lectures and so on. Now, if he has misunderstood something, the machine might extinguish this misinformation—extinguish poor skills that might prevent him from learning something else. Isn't that what really happens?

ANDREAS: Well, I think that's an incomplete analysis. While it's true that wrong answers get no credit and are "punished" by the necessity of redoing those items, it's also true that a properly programmed machine does a great deal more to give positive information. It can impart to the student, or gradually build into the student, habits of close attention and even reasoning and thinking that are a positive approach to the learning process.

BECK: You're suggesting that it does better what teachers have always tried to do, by doing it more quickly? But what is the student's motivation to please a machine?

ANDREAS: Some of the same motivations are inherent here as are always utilized in classroom teaching. Some are in the punitive realm, where the student accomplishes work because of fear of the consequences of not learning the material. Those aspects of the motivational process are still with us in the long-term check-up on the student's progress. But inherently the machine gives a positive motivation that, it is claimed, goes over to the love of learning. The rewards are so immediate, and the progress so evident to the student, that he very quickly becomes one who seeks knowledge for its own sake.
FULLAGAR: I’ve noticed this with games and puzzles, where the outcome, in terms of reward or achievement, is certainly nothing very high: many people, especially kids, get quite a satisfaction from trying to solve the immediate problem. Maybe this is the secret here—the challenge of the immediate thing—and the machine might take advantage of this short-term interest people have.

BECK: We’ve heard a lot about how learning should be motivated, and how important it is to get students interested in what they’re supposed to learn; John Dewey’s contribution was very largely in this direction. But it seems to me that we’ve gone too far in that direction, and it shows up, among other things, in the titles of textbooks we use and courses we teach even in the universities. I remember seeing a textbook once, *The Romance of Organic Chemistry*. This attitude that learning can be fun, that it’s a kind of game, that there’s not much difference between the playground and the classroom, may very well have gone too far. I wonder if the machine might not contribute to this minimizing of the seriousness, the difficulty, the very hard work that is necessary for intellectual maturity.

ANDREAS: Well, many classroom teachers have been led into making a game out of learning because of the very frustration that comes from not being able to carry the slower students along with a highly paced approach to the material. With a machine, the brighter student could go on ahead at a very fast pace. And incidentally, this irregular pacing for brighter and slower students no longer would carry with it the social difficulties that occur when one child’s slow rate of learning is made a public matter in the classroom.

BECK: What do you think are the limits to the machine? You said that it can impart a good deal of information, it can drill, it can aid in rote learning. What about what we might call insight, or development of judgment, even taste, in literature, philosophy, the arts? Is there any way it can move over into that?

ANDREAS: I think some techniques of thinking and reasoning could probably be demanded of the child—gently demanded, step by step, so that rather than face a class with a very difficult problem in reasoning and having only ten per cent of the students get it, we would have a programmed series of graded difficulty levels. I understand many teachers of long experience find themselves inadequate as constructors of such programs, because their typical approach is often to challenge the student with a difficult item and to guard against revealing the answer. If we examine some of the “machine” programs, we find that every answer called for has just been given away in one or two previous items. And that is precisely the purpose: to impart information and ask for it back with understanding. The fact that the machine can teach some of the more factual material for which there are known right answers relieves the teacher of one burden and leaves him free for the discursive, argumentative type of teaching that is really more challenging to both teacher and pupil.
FULLAGAR: It seems to me that the machine takes away from the teacher only those jobs that don't really call for a professional teacher or for much depth of understanding. I've often said to teachers: "If all you do is assign work to be done, and then test to see if it is done, you don't need four years of college preparation. Let's not kid ourselves; any good sharp high school graduate could do that type of teaching." Now, no machine is going to eliminate the necessity for having a teacher, but it can give the teacher a different role. While students are occupied with the machine, the teacher can go around and help students who are having trouble. Present critics of our schools say we teach like a duck hunter who aims at the center of the flock and never hits any one duck. Well, we've often said that teachers don't hit anyone either if they aim at the mythical average student—we all know students are different.

ANDREAS: Yes, and one of the strong points in learning theory is that of reinforcement for correct behavior or correct responses; a teacher with thirty pupils can only now and then give reinforcement to each one. But the machine can give reward after reward—a modest little "you are right" can be quite encouraging to the child, especially when he sees himself making real progress in the mastery of material.

BECK: This is beginning to look extremely good in theory. What sort of actual evidence do we have that it speeds up learning?

ANDREAS: I read in Newsweek that in one test of the machine it was claimed that grades were twice as high as were made by presumably an equivalent group of students taught conventionally.

FULLAGAR: Whatever that means. I noticed that too—"twice as high."

ANDREAS: Yes, it's a rather difficult thing to evaluate quantitatively. Professor Skinner did indicate some rather promising results in his elementary school tests in New England. And I have tried out some of the programs, question by question, with college students. The earliest questions on any topic are so laughably simple that the students cannot see the challenge, but when I asked, say, question 35, none knew the answer. However, when I went through the series consecutively, all knew the answer by the time we got to question 35. Actually, the answer was given away in the phrasing of previous items. But the machine is supposed to give information freely to someone who wants it and not to withhold it or be coy, making a student invent answers or dream them up in the case of factual material.

BECK: I should think one of the most valuable features of this would be that it could precisely locate a child's difficulty. If you give him a complicated problem in algebra, and he doesn't get it, sometimes you don't know why he missed. With the machine you could trace his failure back to the exact place he went off the rails.

FULLAGAR: One thing obvious to me is that the analysis of the answers a student has made on his tape is going to be very important. Some answers are "wronger" than others, and some that are wrong still reflect a high level of thinking about the problem. We should be careful, though, that no one starts using the machine as a testing device. If we did that, or even gave the student a grade on his tapes, the natural thing for him to do would be to devise ways of "beating" the machine. But the machine is supposed to be an aid, not an adversary.

ANDREAS: I think the fact that the answers are given in the program is enough to safeguard against that. To prepare for a machine session by getting the answers ahead of time would impose more of a memory test than would careful reading of the items as they come up. I think proper reading habits will be an important factor in this.

FULLAGAR: Yes, this puts a very high premium on reading for meaning. Maybe we will find students coming out of this better readers, even if they don't become better mathematicians or better chemists. Professor Beck, do you think the machine might have any applications in philosophy?

BECK: Well, my colleague John Blyth at Hamilton College has developed a logic machine. It might teach syllogistic analysis and demonstration, and, I should think, especially symbolic logic. Maybe a machine would work in teaching the history of philosophy. But the machine's function is predicated on the assumption that somebody knows the answer; and to most questions in philosophy, nobody knows the answer. So nobody could program one of these . . . unless you developed a machine that would argue with you. I don't know whether that would be possible or not; I very much doubt it. However, I'm hesitant about saying anything is impossible these days . . .

For further Reading:
BLUSHING—the badge of "innocence" for Victorian ladies and the brand of admitted shame for sinners throughout the ages—gets still another interpretation from a UR psychiatrist; it stands for man's basic tendency to tell the truth.

"There is an agency within us that demands that the truth come out," says Dr. Sandor S. Feldman of the Medical School. "When we learn to be hypocritical, to care too much what others think of us, then shame is imposed on us."

"The core of the problem," he goes on, "is the ardent desire of all mankind to be the center of attention. But we are taught that we must be humble. Repressing the desire for attention brings redness to the face—and draws the attention we wanted in the first place."

Any denial of truth can bring on blushing, Dr. Feldman says. But what is the main truth we deny? "Our gender," he believes.

"Women are ashamed and blush when they repress their natural feminine wish to be the center of attention." When the attention is desired for sexual reasons, and this is concealed or repressed, "the excitation is diverted toward the face and appears as redness." Nor is blushing confined to the female of the species. Both sexes blush, as do all races, the blush occurring as a darkening of color in persons of colors other than white. The blind blush the same as the sighted.

While blushing is an old story with mankind—many mentions in the Bible and in early Greek literature so indicate—the custom has undergone cultural changes lately, Dr. Feldman points out.

"Decades ago, women were expected to be bashful and blush at the slightest violation of etiquette, and men's blushing was considered a weakness of masculinity. Today, women are no longer expected to blush so freely, and men's blushing has come to be considered rather charming."

Dr. Feldman's study of red faces goes back to 1921, when he published his first paper on blushing. Six books and innumerable treatises later, Dr. Feldman is still actively investigating human behavior all the way from dreams to nervous tics. His latest book is *Mannerisms of Speech and Gestures in Everyday Life*, published in 1959.

A onetime pupil of Sigmund Freud, Dr. Feldman has spent more than 40 years in psychoanalytic practice and teaching. In the process of becoming an analyst, he himself underwent the required psychoanalysis. As a result, Dr. Feldman reports, he no longer blushes.
CLASS NOTES

All Class Notes about alumni and alumnae of the River Campus schools and colleges appear under the heading "River Campus—Men" or "River Campus—Women." If an alumnus or alumna attended a division other than the College of Arts and Science, the appropriate symbol will appear:

RIVER CAMPUS—MEN

1900
60th Class Reunion, June 10, 11, 12, 1960.

1905
55th Class Reunion, June 10, 11, 12, 1960.

1910
50th Class Reunion, June 10, 11, 12, 1960.

1913
JAMES M. SPINNING, retired superintendent of Rochester schools, addressed the Binghamton Business Administration, Rochester Business Institute, was honored at the school's graduation ceremony on August 5 for recognition of his teaching since 1927 at the RBI.

1915
45th Class Reunion, June 10, 11, 12, 1960.

1916
ELMER K. SMITH, chief consultant for the health and physical education department of the Rochester Board of Education, was appointed volunteer first aid chairman of the Rochester-Monroe County chapter of the American Red Cross.

1920
40th Class Reunion, June 10, 11, 12, 1960.

1921
Dwight Vande Vate, vice president and general manager of the Gleason Works, Rochester, retired in November after 40 years of service.

1924
MERLIN GROFF and Jean Edgcumbe were married in Rochester on October 3.

1925
35th Class Reunion, June 10, 11, 12, 1960.

1929
Roy J. Linge was elected vice president of the Vogt Manufacturing Company, Rochester textile manufacturers for the auto industries, in September.

C. GREGORY SMITH has been appointed assistant treasurer of the Tennessee Eastman division of the Eastman Kodak Company, Kingsport.

1930
30th Class Reunion, June 10, 11, 12, 1960.

1932
Dr. ROBERT K. TITUS, world lecturer, addressed the Mercer County (Pa.) teachers association on September 8.

1933
DONALD S. FROST, vice president of Bristol-Myers Company, was elected chairman of the Board of Directors of the Association of National Advertisers in November.

1934
Dr. JOHN J. REED, a member of the history and political science department at Muhlenberg College, Allentown, Pa., was promoted to full professor in September.

1935
25th Class Reunion, June 10, 11, 12, 1960.

1936
JOSEPH R. DEMBECK has been named director of long range planning and appropriations for the accounting department of United States Steel Corporation, Pittsburgh.

1937
Dr. ROBERT W. REED has been appointed director of technical services and control of the St. Regis Paper Company, Cambridge, Ohio.

1938
Dr. ROBERT B. CANTJUCK was named chairman of the fine arts department, Jacksonville (Ala.) State College in September.

1939
Dr. DUDLEY T. CORNISH, professor of American history at Kansas State College, Pittsburg, has been appointed chairman of the department of social science. Last winter Dr. Cornish became editor-in-chief of "The Midwest Quarterly," a journal of contemporary thought published by the college, the first issue of which appeared in October.

1940
SAMUEL FEER and E. M. Britton were married in Charleston, W. Va., on September 3.

1941
LEO A. MACSWINEY has been appointed manager of the George H. Campbell Company, Inc., Oswego (N.Y.) merchan ding firm.

EDWIN BENWatson, formerly professor of mechanical engineering at Cornell University, joined the staff of the Scintilla Division, Bendix Aviation Corporation at Sidney, N. Y., on September 1 as chief diesel engineer.

H. ELWOOD WHITE was elected vice president and controller of the Rochester Telephone Corporation in August.

1945
20th Class Reunion, June 10, 11, 12, 1960.

1941
CHESTER P. CARPENTER, staff engineer at the Croley Division, Avco Corporation in Cincinnati, is one of two engineers who have been selected from that company as fellows in the University of Cincinnati's graduate cooperative research program. Mr. Carpenter is a candidate for a Ph.D. degree in physics.

WAYNE G. NOETON has been elected vice president of Optical Gaging Products, Inc., Rochester supplier of engineering services, products and equipment for inspection by optical projection.

1942
WILLIAM J. BRUCKEL, attorney in Avon, N. Y., has been promoted to commander in the U. S. Naval Reserve.

1943

1945
15th Class Reunion, June 10, 11, 12, 1960.

ROBERT M. STROMAN has been appointed a molding compound salesman in the Hooker Chemical Corporation's eastern division with headquarters in New York City. Mr. Stroman is a past national director of the Society of Plastics Engineers and a member of the American Institute of Chemical Engineers.

THE REV. JACK WELLER, formerly pastor of the Clear Fork Parish in the West Virginia Mountain Project, has become director of the Project with headquarters at Whitesville, W. Va.

1948
DR. ARTHUR R. FANTaci and Margaret A. Lutz were married in Utica, N. Y., on September 26.

1949
WALTER P. ALLEN was appointed administrator of Wyandotte (Mich.) General Hospital in October. Mr. Allen recently returned to the United States after serving at Gorgas Hospital in the Canal Zone for the past two and one-half years.

1950
WILLIAM B. SADFY has been named executive director of the Decatur (Ill.) Family Service.

1960
30th Class Reunion, June 10, 11, 12, 1960.

DONALD C. PATTEN, (G), associate director of Rochester Institute of Technology's Evening Division, has been appointed to the newly created post of director of the institute's Summer Session.

SHERWOOD L. SHULMAN, (U), was awarded the professional designation of Chartered Life Underwriter on September 23. Mr. Shulman is with the Phoenix Mutual Life Insurance Company.

CHARLES H. WADEHAM S, JR., was awarded the professional designation of Chartered Life Underwriter on September 23.

D. DOUGLAS WATERSTREET has been appointed executive director of the Health Association of Niagara (N.Y.) County.

RICHARD ZIMMERMAN has been appointed a supervisor in the market development section of the Eastern Chemical Division, Hooker
MARRIAGES:

CHARLES B. HAGUE and Dorothy C. Stull on August 29, Jamaica, N. Y.

ALFRED WEEKES, Jr., and Mary St. Claire on August 28, Washington, D. C.

1951

DONALD B. BROWN has been appointed purchasing agent of R. J. Strasenburgh Company, Rochester.

NORMAN A. MILES has been appointed account executive in the public relations division of The Rumrill Company, Rochester advertising, marketing and public relations agency.

1952

CHARLES T. HORMKEN has been appointed associate professor of accounting of the Graduate School of Business, University of Chicago.

RALPH F. MILLER, (U), comptroller of the Arnot-Ogden Hospital, Elmira, N. Y., was named associate director of the Elmira-Corning Chapter, National Association of Accountants in September.

Dr. NORMAN P. NEUREITER and Mary G. Reid were married in July prior to leaving for Moscow where Dr. Neureiter was a guide at the American National Exhibition.

RICHARD L. WEIS has been transferred from Santa Monica, Calif., to Syracuse, N. Y., where he is a photo-finishing technical representative for Eastman Kodak Company.

1953

WILLIAM D. HULBERT has been appointed to assistant general agent of the Buffalo (N.Y.) Agency of the John Hancock Mutual Life Insurance Company.

DONALD ISTYAN was awarded the degree of Doctor of Business Administration at Indiana University in August. He is currently UR assistant professor of business administration.

ARTHUR M. HANHARDT, Jr., and Cornelia Buentig were married in Frankfurt, Germany, on August 10.

1954

EARL BLASI and Gerri Hubbard were married in Rochester on August 8.

DONALD DOOLEY recently accepted a contract with the Bielefeld (Germany) Opera where he is singing leading roles.

WILLIAM A. LEE and Barbara Smith were married on April 5, 1958. Mr. Lee is working toward his doctorate at the School of International Service, American University, Washington, D. C.

JACK R. KIRCHNER received a Ph.D. degree from Carnegie Institute of Technology, Pittsburgh, in June.

PETER H. OVENBURG has been appointed instructor of zoology at Michigan State University.

ANTHONY F. SATUENO received a Ph.D. degree from Carnegie Institute of Technology, Pittsburgh, in June.

1955

DONALD C. STEWART received a master of science degree in industrial administration from Carnegie Institute of Technology, Pittsburgh, in June.

1956

JOHN D. HARPER, Jr., is employed as a plastics engineer for the M. C. Gill Corporation, El Monte, Calif.

JOHN H. LETAUX, guidance instructor at Pomona College, Claremont, Calif., has received a $1400 scholarship from Columbia University for further study.

EDWARD D. RUSSELL, Jr., student at Dartmouth College business school, has been awarded the Charles I. Lobovitz Memorial Award by the faculty of the Amos Tuck School of Business Administration.

ZENON NYLYK was recently named to the U. S. Olympic soccer team.

John D. Van Norman was awarded a Ph.D. degree in chemistry at Rensselaer Polytechnic Institute. He is working on a post-doctoral fellowship at the Brookhaven National Laboratory, Upton, Long Island.

1957

JOHN WEISS, (U), and Marilyn Sexton were married in Rochester on October 10.

1958

ALBERT BARK is enrolled as a member of the June 1960 class of the American Institute for Foreign Trade, Phoenix, Ariz.

WILLIAM F. COOMBS, Jr., (G), has been named head of the electronics department of Bausch & Lomb Optical Company, Rochester.

THOMAS C. GRIFFITH, (U), manager of the Buffalo, N. Y., office of Central Soya Company, has been promoted to the staff of the meal and oil sales department at Fort Wayne, Ind.

SANDFORD N. NUSBAUM, senior dentist student at the University of Buffalo, has received an American Cancer Society Summer Fellowship grant for study at Memorial Hospital, New York City.

DAVID F. SAHLER has been appointed to the field sales office of The Sporlan Valve Company, Dallas, Tex.

CHARLES BANKS, (U), has been appointed a relocation technician for the Rochester Rehabilitation Commission.

JENNY R. SPOFFORD completed the eight-months' officers' basic course at Marine Corps School, Quantico, Va., in August.

RICHARD L. WAWRO was appointed clinical supervisor of the Auburn (N. Y.) Memorial Hospital School of Nursing in August.

1959

JANUARY

21—Toronto Area Alumni.
In informal meeting, 8 p.m. Hart House, the University of Toronto. R. Craig Brown, reservation chairman.

27—Rocky Mountain Club.
Dr. D. Lincoln Canfield, speaker. Dessert meeting 8 p.m. Denver Athletic Club, Denver, Colo. David J. Whalen, program chairman.

28—San Francisco Club.
Dr. Canfield, speaker. Social hour 6:15, dinner 7:30 p.m. Marines Memorial Club, 609 Sutter Street, San Francisco, Calif. Tom Mopp, reservation chairman.

30—Southern California Alumni Club.
Dr. Canfield, speaker. Cocktails 7:30, dinner 8 p.m. Rodger Young Auditorium, 2121 Washington, Los Angeles, Calif. Robert Kelinse, reservation chairman.

FEBRUARY

3—Syracuse.
Easting Singers at St. Paul's Episcopal Church.

18—Wilmingon.
Dr. Richard Wade, speaker.

28—Detroit.
Musical.

Regional Clubs

JANUARY

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RIVER CAMPUS—WOMEN

1910
50th Class Reunion, June 10, 11, 12, 1960.

1915
55th Class Reunion, June 10, 11, 12, 1960.

1920
ELEANOR GABRITT GILBERT, who returned to Rochester in September from Tokyo, Japan, where she was a lecturer in English at the Japan International Christian University, is head of the Rochester Women's Planning committee of the JICU.

1920
50th Class Reunion, June 10, 11, 12, 1960.

1925
55th Class Reunion, June 10, 11, 12, 1960.

1926
EMMA DONK, health education secretary and assistant executive director of the Health Association of Rochester and Monroe County, is the newly-appointed director of Christian Education at Brighton Presbyterian Church in Rochester.

1929
RUTH WENTZ VAN OSTRAND is chairman of the school community relations for the Geneva Valley District New York State Congress, Parent Teachers' Association.

1930
50th Class Reunion, June 10, 11, 12, 1960.

Dr. JOSEPHINE E. RAAPPEL, associate professor of Albright College, Reading, Pa., spent the summer at the University of Toronto studying the Russian language. Dr. Raappel holds five degrees.

1931
MARY OVATTIANO LA RAA and her family recently returned to their residence at 124 West Grove Street, Oneida, N. Y., upon the retirement of Col. La Raa, USA.

1931
BEATRICE GILES retired recently from the General Electric Company and is now a licensed real estate saleswoman.

1933
ELIZABETH O'BRIEN HALLETT has been appointed associate director of the Rochester Council of Social Agencies' new program to recruit young people for social welfare work. The program, The Careers in Social Service Plan, is sponsored jointly by the Junior League of Rochester, Inc., and the John F. Wegman Foundation.

1934
BERTHA LAMSON has been appointed probation officer for the Chemung (N.Y.) County Probation Department.

HELEN R. BLANK has been appointed acting chairman, department of library science, at St. John's University Graduate School of Arts and Science, New York City.

1935
25th Class Reunion, June 10, 11, 12, 1960.

GLADYS LEHR TREICHEL has been re-elected third grade at the Charles A. Upson School, Lockport, N. Y.

1940
20th Class Reunion, June 10, 11, 12, 1960.

DOROTHY FERGUSON COSTELLO is teaching third grade at the Charles A. Upson School, Lockport, N. Y.

1943
CHARLOTTE TROPPMAN BOWER has been appointed assistant research librarian in the research department of Monsanto Chemical Company's Plastics Division, Springfield, Mass.

1944
REHILL BRADLEY is the new director of the YWCA South Side Branch, Buffalo, N. Y.

1945
15th Class Reunion, June 10, 11, 12, 1960.

A second son, Robert Jennings, was born on August 26 in Cincinnati, Ohio, to Jennings and DOROTHY PARID STILES.

1948
SISTER CAROL HOBIN is presently located at the Philadelphia Motherhouse of Deaconesses, 801 Metion Square Road, Gladwyn, Pa.

1949
BARBARA A. BUTTS and Harold P. Cole were married in Cuba, N. Y., on August 15.

1950
10th Class Reunion, June 10, 11, 12, 1960.

ANNE LAPHAM BLEVINS has been appointed associate professor of music at Converse College, Spartanburg, S. C.

1952
VIRGINIA R. BRUBAKER, organist and director of music at Calvary Independent Church, Lancaster, Pa., for the past six years, became music instructor at the Philadelphia College of the Bible in September. In addition she is organist at Grace Chapel, Havertown, Pa.

A fourth daughter, Rachel Margaret, was born August 28 to Alfred and EILEEN HANLEY KING in Rochester.

1953
DR. VIRGINIA L. RADLEY, (G), has been named dean of freshman and assistant professor of English at Russell Sage College, Troy, N. Y.

1955
EVELYN SOKOLOWSKI was one of 39 student officers of the U. S. Public Health Service who took summer training in the laboratories of the National Institutes of Health, Bethesda, Md. A son, Steven Fredrick, was born on October 26 to Gerhard, '55, and TODNE LOHNRAD WELLMAN.

MARRIAGES:

SARA L. KING and Ensign Charles H. Van De Mar, '59, on August 8, Rochester.

ALEXANDER ROHOZ and Dr. Jan Nilsson on July 4, Gothenburg, Sweden.

1959
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1958
JOYCE TIMMERMAN received a Master of Arts degree from the department of radio, television and film of Northwestern University School of Speech in August.

ELONOR E. UPHIELD was one of 39 student officers of the U. S. Public Health Service who took summer training in the laboratories of the National Institutes of Health, Bethesda, Md.

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1959
MARRIAGES:

MARRIAGE.

ELIZARETH F. KLAVER is teaching seventh and eighth grade mathematics at Niagara-Wheatfield (N.Y.) Central School.

HELEN R. MITLOF and Dr. Martin R. Klemperer were married in Rochester on September 27.

KAIS EDINGHOLT SAY received the degree of Master of Social Science at the Smith College School for Social Work, Northampton, Mass., September 1. Mrs. Say has accepted a position with the Family Service Association in Brookline, Mass.

GRACE WHITE is working toward a master's degree at the University of Colorado, Boulder.

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ALEXANDER ROHOZ and Dr. Jan Nilsson on July 4, Gothenburg, Sweden.
The U. S. public had reassuring word about the prospects for employment in 1960 from two UR alumni. Sharing the optimistic outlook that we will make a closer approach to full employment than in 1959 are Martin R. Gainsbrugh, '28, and John W. Remington, '17.

Mr. Remington, president of the Lincoln Rochester Trust Company and newly elected president of the American Bankers Association, based his optimism for employment on an improved economic picture for 1960. Having predicted a settlement of the steel strike, Mr. Remington said he would expect the second six months of the year "might be a little better than the first six months of 1959 and the second six months might be a little less, from a business viewpoint, than 1959."

Current unemployment figures, he continued, include "a good many people who just don't want to work or are not capable of working. Now they are counted among the unemployed. But the number of really unemployed who want to work is relatively small at the present time."

Mr. Gainsbrugh, in his capacity as chief economist for the National Industrial Conference Board, was quoted in U. S. News & World Report as believing "1960 will be characterized by a closer approach, by far, to full employment than in 1959." His view of the overall economic picture was similar to Mr. Remington's. He noted that economists' emphasis on deceleration for the second half of 1960 is "the typical discount that the conservative economist would be expected to apply to a more remote time period."

Reporting the consensus of economists who spoke in the NICB annual forum, he said not a single member expects the gross national product in the second half to be lower than the first half. "Where we differ is that the first half was in the rate of acceleration rather than the trend," Mr. Gainsbrugh concluded.
Eastman School of Music

and his wife, Annette Nahmensen, '54GE, are both members of the Muncie Symphony.

A fourth son, Brooke Lyman, was born to Joseph and Lois McCallum Hopkins, GE, on August 14. Mrs. Hopkins is beginning her third year at Dana School of Music, Youngstown (Ohio) University, as head of the theory department, which includes theory and correlation for both members of the Muncie Symphony.

The annual Twins, Donald Christopher and Justine Elizabeth, were born to Donald and Justine Cleary Johnston on July 17 in Tampa, Fla. Joan Mack has been appointed to teach cello and theory at Peabody College, Nashville, Tenn., and will also be solo cellist with the Nashville Symphony.

Dr. Hugo Marple has been appointed conductor of the Stevens Point (Wis.) Symphony Orchestra for the summer.

Robert Restemeyer is assistant professor of music at Thiel College, Greenville, PA.

1950

10th Class Reunion, June 10, 11, 12, 1960.

Samuel M. Jones is assistant professor of voice and choral music at the University of Wisconsin, Madison, Wis. Last spring he presented two recitals at the University and last summer was a member of the staff of the University of Wisconsin Church Music Conference. He is married to Sarah Jarvinen, and they have three sons.

1951

A third daughter, Rachel Helen, was born to Mr. and Mrs. Bruce Decker on September 23 in Rochester.

Doris Green and Harry Wheaton, Jr., were married August 22 in Ogdensburg, N. Y.

A daughter, Martha Clarice, was born to Charles, '35GE and Marjorie Latham Hopkins on September 25 in St. Louis. Mrs. Hoffer is director of music for the public school district of Clayton, Mo.

John Price has been appointed to teach piano at the Texas Technological College, Lubbock, Tex. Mr. Price completed his second year of study in Paris this fall under a Fulbright grant.

Annette B. Smith has been appointed to teach organ at Catawba College, Salisbury, N.C. Green, who has been appointed assistant professor of music at Nebraska Wesleyan University at Lincoln.

1952

Ted and Gloria Eshelman Hodges are running a motor hotel in St. Petersburg, Fla. Mrs. Hodges is teaching fourth grade in the public schools and Mr. Hodges is teaching sixth grade.

Robert Montgomery is a member of the Birmingham (Ala.) Symphony Orchestra. He is conductor of the Birmingham Junior Youth Orchestra and also teaches at the Conservatory of Birmingham-Southern College.

Norma McCullough, '51, is an assistant professor in the department of music at Hollins College, Roanoke, Va. He is also the new choir director at Christ Lutheran Church in Roanoke.

Ronald Ondrejka has won the award of the American Symphony Orchestra League for young American conductors under a grant from the Rockefeller Foundation. As a result of that award, he will appear as a guest conductor of the Wisconsin School of Music, Madison, Wisconsin, at a recital concert in Pittsburgh. Mr. Ondrejka has also been appointed assistant conductor of the orchestra at Radio City Music Hall in New York City.

1953

"Smoky Mountain Holiday" by Dr. Benjamin Dunford, Jr., (GE) was performed at the world-famous Transylvania Music Center at Brevard, N. C., in August. The composition had its premiere in 1956 at the fifth annual Southwestern Symposium of Contemporary American Music at the University of Texas, where it won one of three identical top awards for music in the orchestral division. Since then the composition has been performed by leading symphony orchestras in the United States over nationwide radio broadcast and in The Voice of America.

Blythe Owen, (GE), a member of the theory faculty of the Chicago Musical College of Roosevelt University, recently was the recipient of the following awards: Anthem contest, sponsored by the Broadman Press, for her composition "The Little Jesus Came to Town," and the Mu Phi Epsilon national biennial award for her composition "Toccata," written for piano.

1954

Janis Rollow and Franklyn Butler were married August 23 in Chanute, Kan.

Norma Elworthy is married to John Gil­

lepie and is living in El Paso, Tex.

William D. Cayer has been appointed as­

istant director of the Robin Hood Band, Hol­

wood. He was formerly music supervisor of Charlotte High School, Rochester.

Mary Nan Hodgen, former faculty member of the Eastman School, and Martin Mailman were married August 22 in Dallas, Tex.

1955

5th Class Reunion, June 10, 11, 12, 1960.

Joyce E. Strong is a member of the upper school music department of Kent Place School, Summit, N. J. She is also giving private piano instructions to the school students.

Harry Treblick performed a piano concerto in September in Nelson Memorial Hall of Wyoming Seminary, Wilkes Barre, Pa., for the benefit of the organ console fund of St. Clement's Church.

MARRIAGES:

Lillian Bittner and Kenneth Kessin on September 6, Chicago.

Betrice Kuenzig and Donald Cervone on September 26, Meadville, Pa.


1956

James Clooser, who has been signed as a solo dancer by the Royal Winnipeg Ballet for the 1959-60 season, is appearing in five of the season's programmed ballets.

James Fuller is teaching instrumental mu­

sic at Stanford (N.Y.) Central School.

A daughter, Lori Evan, was born September 20 in Grand Ledge, Mich., to Ruth and Rodger Kramer.

Marjorie Hall has been given a contract to sing opera in Ulm, Germany, this season.

John Perry won first prize in the Interna­

tional Busoni Competition in Bolzamo, Italy. The prize consisted of 100,000 lira (about $2,000) and an invitation to give a recital in Bolzamo. The decision of the judges, all Europeans, was unanimous. Mr. Perry has also been awarded the University of Illinois' 28th Kate Neal Kinley Memorial fellowship of $1,500.

Jean Sloop, (GE), has joined the faculty of Kansas State University, Manhattan, to teach voice and direct the 80-voice Women's Glee Club. Her debut recital, given on October 12 in the Chapel Auditorium of the University, featured a performance of "Four Poems for Music" by Wayne Barlow, which she had previously sung last May at her final recital as faculty member of Earlham College, Richmond, Ind.

Nancy Yeager is doing graduate work at the New England Conservatory of Music. Miss Yeager received her Bachelor of Music degree from Oberlin College last June. Last summer she was music director at the Quinebeek Camp for girls in Vermont.

1957

Thecla Chalk Driickers, (GE), is teaching piano in a newly established preparatory piano department at Hollins College, Roanoke, Va.

Marlene Geller and Albert Marston were married August 19 in Akron, Ohio.

Three musical compositions by Sydney Horkinson were performed last fall. A communion service for four-part mixed chorus was performed in Windsor, Ont., by the choir of St. Barnabas' Anglican Church. "Two Canadian Poems" for soprano and piano, was given at a recital at the University of Toronto and "Elegy" for brass quartet was played by a brass ensemble comprised of members of the United States Army Band in Washington.

Ruth Ann Myers has been appointed in­

structor of piano at Maryville College, Knox­

ville, Tenn.

Robert Spillman is teaching piano in the music department of Eastern State College, Richmond, Ky.

Richard Webster, (GE), is teaching clar­

inet at State University, Bowling Green, Ohio.

1958

William Harroad, (GE), has been appoint­

ed to the post of second oboe in the Cincinnati Symphony Orchestra.

Nell Humphred, (GE), is instructor in brass and assistant director of the bands at East Texas State College, Commerce, Tex.

Dorothy Johnson Kitchin, violinist, was presented in a recital in Dayton, Ohio, in September.

Richard Skerlong, (GE), has been appoint­

ed instructor of strings at The University of Louisville (Ky.) School of Music. Mr. Skerlong is assistant concertmaster of the Louis­

ville Orchestra and a member of the Louisville String Quartet.

MARRIAGES:

Carol Dawn Moyer and Ronald Winkel­

man, '56, on August 22, Fleetwood, Pa.

Charlotte Westcott and Albert Rignot on August 8, Ann Arbor, Mich.

Sylvia Stone and Edward C. White, '59, on August 26, Talladega, Ala.

Vivian Emery has been appointed instru­

mental supervisor in the Twin Valley, Pa., ele­

mentary school.

Nan Schenberger is studying in Cologne, Germany, on a University of Rochester ex­

change fellowship.

Burton Weaver has been appointed instruc­

tor in music at the University of Dayton (Ohio) division of fine arts.

MARRIAGES:

Tanya Lebinska and Gerald Carey on Au­

gust 30, Pendleton, S.C.

Margot Keith and Edward Wolpert on September 6, Lewis, N. Y.
Poet Plutzik with daughter Roberta. Dr. Plutzik is associate professor of English at River Campus.

HE VOICE of the poet, heard lately and loudly in the coffeehouse of the nation, sings also on the campuses of our more advanced universities. Surely and quietly, living poets such as the University of Rochester’s Hyam Plutzik teach, recite and enliven other people’s poetry...and develop their own thoughtful explorations of time, of suffering, of the self and the world.

To Dr. Plutzik, the poetry of our time is important. (“It may be good or bad; let posterity decide that.”) But its great value is in crystallizing the meaning of our age.

“Our great problem today,” Dr. Plutzik says, “is the atom bomb. What, people ask, can poetry say about that? The answer, I think, is that poetry reduces the problem to an eternal common denominator and brings it down to a question of man’s responsibility for his brother.”

On the back cover of this issue is “To My Daughter,” one of the thirty lyric poems in Dr. Plutzik’s newest book, APPLES FROM SHINAR, published by the Wesleyan Press, Middletown, Conn. His first volume since ASPECTS OF PROTEUS a decade ago, the new work contains also a section of still another major work in progress, “The Shepherd.”

Like ASPECTS OF PROTEUS—which won the 1959 Poetry Society of America award and the $1,000 prize of the National Institute of Arts and Letters—APPLES FROM SHINAR has begun receiving appreciative applause: The Lillian A. Fairchild award has already been presented to Dr. Plutzik for his “deeply felt images expressing both the brain and body of man with human dignity.”

—K. G.
To My Daughter

by Hyam Plutzik

Seventy-seven betrayers will stand by the road,
And those who love you will be few but stronger.

Seventy-seven betrayers, skilful and various,
But do not fear them: they are unimportant.

You must learn soon, soon, that despite Judas
The great betrayals are impersonal

(Though many would be Judas, having the will
And the capacity, but few the courage).

You must learn soon, soon, that even love
Can be no shield against the abstract demons:

Time, cold and fire, and the law of pain,
The law of things falling, and the law of forgetting.

The messengers, of faces and names known
Or of forms familiar, are innocent.