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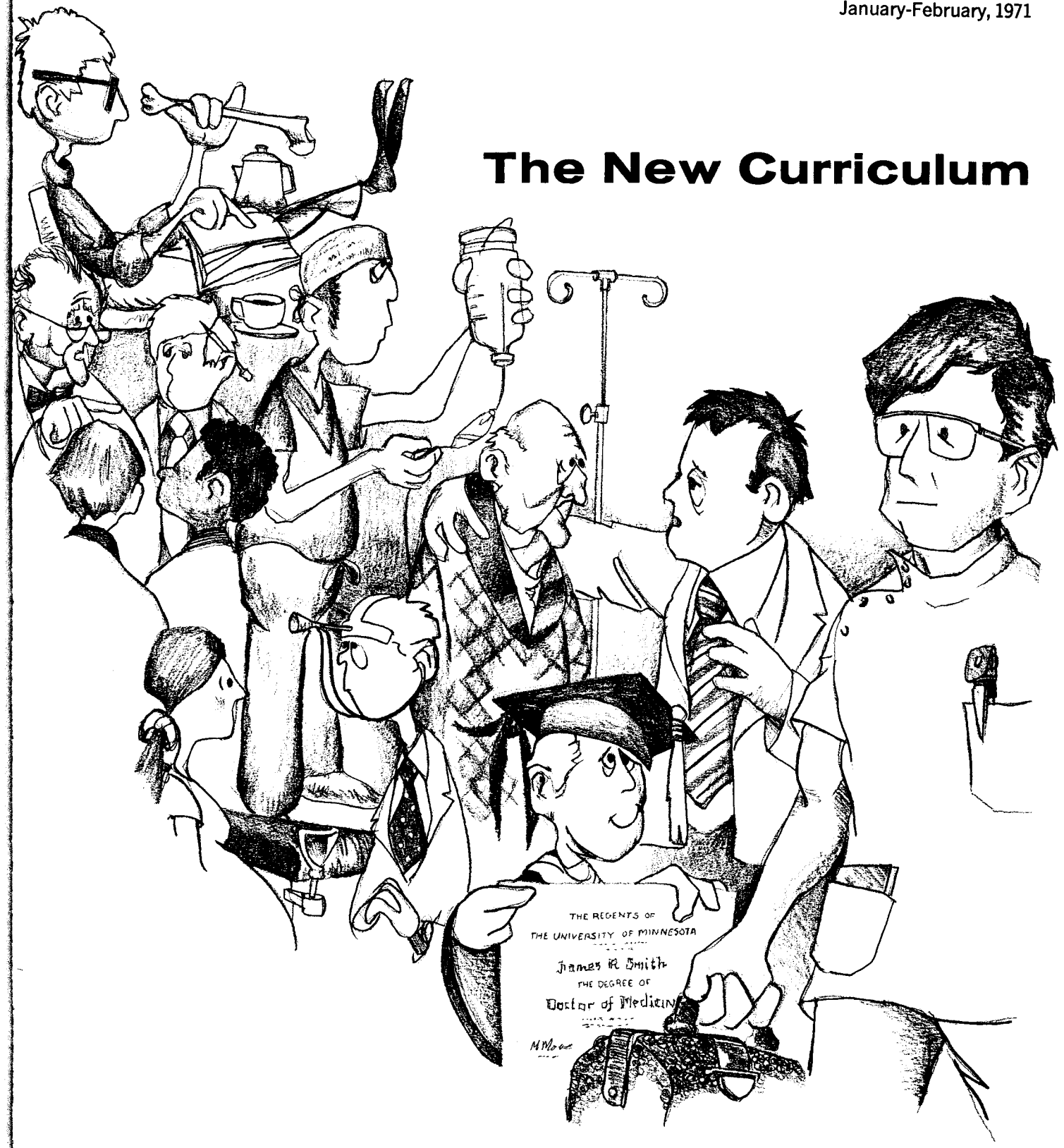
UNIVERSITY OF MINNESOTA

January-February, 1971

The New Curriculum



THE UNIVERSITY OF MINNESOTA MEDICAL BULLETIN

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The New Curriculum:

Past
Present
And to Come

by Dr. Robert J. McCollister
Assistant Dean of Student Affairs

This issue provides a sampling of reports on continuing progress in curriculum development at the Medical School. The articles are meant to highlight some aspects of evaluation and to show how planning for the future is proceeding, as we look back to see how we have done.

In the ferment of planning and revising, the medical students, challenging and irrepressible, are an essential and powerful leavening force. The student discussion groups described by Dr. Pearl Rosenberg have provided feedback about the new program. In turn, this dialogue has led to improvements in program design. The students are certainly an important force in the institutionalization of flexibility which Pearl Rosenberg discusses. Another, and perhaps the most important force now at work to promote institutionalization of flexibility is the Educational Policy Committee, which is responsible for *continuing review and evaluation of the undergraduate medical program.* Much more will be heard of the activities of this group in coming months. Dr. Frederick Kottke (Physical Medicine and Rehabilitation) serves as chairman for 1970-71 and the members of the Committee include A. B. Baker (Neurology), I. J. Fox (Physiology), William Hausman (Psychiatry), James Koerner (Biochemistry), Jack Miller (Pharmacology), Kenneth Osterberg (Pathology), Robert tenBensel (Pediatrics), Paul Winchell (Medicine), Charles Beck (Senior), Michael Belzer (Freshman) and James Larson (Sophomore).

Jo Cassie's report, the second of the articles in this issue provides a comprehensive look at the new Freshman year (Phase A) program. We encountered problems as we expected and now are planning improvements.

Still unanswered and in need of solution are a number of problems. For example, we glibly refer to a core curriculum and are even undaunted by Jim Dawson's wry definition of core as the part of the apple which is thrown away. In truth, we have not yet come to grips with this problem of core content of the curriculum. What do all students really need to know or to have known and know where to find? I suspect that a clearer definition of this kind of educational objective would provide us with an opportunity of tremendous potential to expand health science training programs by making more effective use of self-instructional methods. Also unanswered is the question of the optimal mixture of experiences needed by the student in preparation for postgraduate training and practice. And how should the question be answered concerning how to teach the team approach, a concept which most of us endorse but which few have lived and know? And what about the practice of the future — how much will these future physicians need to know about — computers? sex education? genetics and marriage counseling? health care administration?

Although the answers to these questions are not at all clear, we can expect that the physicians of tomorrow will, as is true today, need to be warm, sympathetic individuals who are interested in their patients' welfare, are well grounded in science, able to work with others and dedicated to the care of the sick. We will continue to search for new ways to provide a variety of opportunities in Medical School by means of which those students, who gain admission, can advance and be guided toward their goals. □

The New Curriculum: A Student's Overview

by James Jaranson, '73

Brief introduction to the extensive curriculum changes at the University's Medical School and to the following series of articles concerning the curriculum might be helpful to medical alumni and friends who are not directly involved with the program. *And, as a member of the first medical class to attempt this revised curriculum, I am placed in an appropriate position to write such an overview.*

In a brief sketch, the new curriculum consists of four phases. Phase A, composed of three academic quarters, contains most of the "core material" in anatomy, biochemistry, physiology, microbiology, and general pathology as well as introductory clinical and behavioral science exposure. Phase B, five quarters in length, attempts to integrate basic science and clinical material around an organ-system framework. Phase C, originally planned to include core clerkships, has been woven into the clinical experiences of Phase B. Phase D consists of an individualized elective program for the remainder of the student's medical school career.

James Jaranson

Among the advantages for students of this new program is the option of completing medical school in three years. Thus, as my class will soon begin the third quarter of Phase B, the midway point for many of my classmates is approaching. Accordingly, this is a most opportune time to examine the progress of the new curriculum.

Phase B, coordinated by Dr. Richard Chilgren of Pediatrics, begins with a summer schedule primarily of physical diagnosis and pharmacology. The following four quarters consist of a sequence of organ-system courses, including lectures, seminars, and some clinical opportunities. Each student also works up a patient per week and discusses the case with his faculty tutor under the "Student as Physician" program. "The Man in His Community" course attempts to expose medical students to a variety of social institutions and activities which have relevance for the physician. Yet, with the experimental atmosphere of Phase B, a certain amount of ambivalence can be sensed. Many students feel both the excitement of change and the burden of being the guinea pig class.

The following articles provide retrospection and a glimpse of the future plans. Dr. Rosenberg (or "Pearl," as she insists her discussants address her) provides an insightful view of the group discussion mechanism as it is used in the evaluation of the curriculum. Mrs. Josephine Cassie effectively summarizes the results of the questionnaire completed by my class as we finished Phase A.

The Medical Bulletin will also attempt to keep its readers posted on the continuing evaluation of the curriculum, especially when Phase B nears completion and a more comprehensive analysis becomes available. □

Institutionalizing Flexibility

by Pearl Rosenberg, Ph.D.
Clinical Associate Professor, Physical Medicine and Rehabilitation and Psychiatry

The concept of institutionalizing flexibility seems to be a contradiction in terms, and yet this apparent paradox must be resolved if we are to achieve the "relevant" educational curriculum that today's student and world demands.

Change is a fascinating dynamic process in and of itself. People in most settings react to it the way an ordinary male finds an extraordinarily beautiful female—dangerously attractive. It is an object very much to be desired but one that also is potentially dangerous since it threatens rejection and loss of self-esteem, and too often the fear of loss is stronger than the hope of gain. This is particularly true in a medical school setting where tradition is important and the academic hierarchy pattern is strong. One can still determine the relative status of the physicians in many clinics by noting the order in which they "spontaneously" respond in a case conference.

Everything being equal (which of course it never is), there are three main resistances to change in any situation. First is the simple one of discomfort. There is a natural disinclination to move out of one's familiar position or rut, no matter how attractive the rut on the other side may be. In physics they call it the principle of "inertia, a term signifying the 'laziness' of matter or its tendency to oppose any change of its velocity," a principle which operates in the psycho-social world as effectively as in the physical one. This is intensified in the case of busy physicians for whom teaching and development of new lecture outlines are additions to an already full "25 hour day."

Secondly, change is uncertain. One always knows where one has been but is never sure of where one is going, and one has a tendency to harbor a sneaking suspicion that when you get there you won't like it. The problems one faces, but understands, have to be really untenable before one is usually willing to trade them for problems no one can guarantee will not be worse. The problems of medical students, while serious, are by no means untenable, for our medical schools continue to turn out capable conscientious physicians despite criticisms which lose influence because of constancy. For many the dangers of turning out ill-prepared, if highly sensitive, physicians outweigh the possible gains of a contented student body.

Finally, and most importantly, willingness to change is often interpreted as admission of inadequacy or failure. The observer tends to believe that if the system were functioning well it would continue despite the reality that a creative system in order to grow must change. It is true that many systems change because they are forced to, but the major exciting changes that occur usually take place in an active, progressive unit that is always reaching up for the next step of the ladder. It is paradoxical but true that the stronger organizations are those with the most effective change processes.

This I believe is the case with our Medical School. *While enjoying the respect that Minnesota graduates hold in the country, the faculty feared to rest on their laurels and felt they must find some way to tap in on the exciting new developments in education and the new demands, sensitivities and feelings of community responsibility shown by our present students.*

The problem was to create a vehicle for change that would be seen as an opportunity, an objective, rational, scientific, modern approach to the vicissitudes of professional life. It must also become an acceptable and familiar part of the very system it wants to change, so it can be seen as a constructive rather than destructive mechanism.

Dr. Pearl Rosenberg

We believe we may have made a significant advance in this problem's solution here at our Medical School, due as much to serendipitous forces as to academic foresight. **The solution came about as a side effect of a research project designed to use the medium of group discussion as a method of discovering what was happening to the beginning medical student as he became a "doctor" and of enhancing his awareness of this process.** On the academic side credit must be given first to Dr. Frederic Kottke, Head of the Department of Physical Medicine and Rehabilitation, who was willing to support a research project aimed at enhancing the general educational needs of the student, rather than requiring a focus on specific departmental needs. The department chairman who is willing to put the total medical school need above that of his own department is generous indeed.

His decision was made somewhat easier, however, when one recognizes that the broad goals of physical medicine and rehabilitation are in essence the core of medical care; i.e., awareness of the total patient in his total situation, requiring a need to understand the psycho-social implications of disease and the physician's own biases in relating to his patients.

We planned to use a randomly selected number of students in groups of 15 to meet at scheduled times through their medical school program to discuss and attempt to analyze the effect of the program as they experienced it. We hoped review of their discussion would enable us to: (1) *document the development of professionalism from "medical student" to "doctor,"* (2) *determine the cause and by so doing weaken the growth of cynicism in the developing physician,* (3) *create an awareness of what is meant by total patient care and the rehabilitation approach to patients, and* (4) *create a growing awareness of self and psychological dynamics of others, so as to enhance one's skill in personal relationships.*

The administration of the Medical School enthusiastically supported the concept of the experiment, to the extent of including the letter inviting student volunteers in the pre-registration material they sent out to all entering freshmen in late August. They added one more important dimension to our work, namely, evaluation. It was apparent to our deans that the group discussions would provide a running dynamic evaluation of the medical school curriculum as the students were experiencing it. Such an evaluation would come not purely from an intellectual point of view but would represent what we psychologists are fond of calling a "gut" level approach. (In our culture we have an interesting tendency to believe the closer one gets to the center of the body—or the visceral area—the more one is likely to get to the center of an issue.)

At the time the project was beginning, the students and faculty of the medical school were experiencing more and more the need for dras-

The Group Discussion Mechanism in Action!

tically changing the curriculum. One of the difficulties faculty committees faced whenever a particular change was suggested was the lack of any kind of evaluative material against which to test or measure the suggestion. The Educational Policy Committee quickly saw the opportunity for a relatively objective yet still dynamic evaluation of the current curriculum which could specifically pinpoint situations requiring change. Such an evaluation would not reflect the views of one or two biased or disgruntled students but would be the result of a consensus of the opinions of a number of students who would subject their reactions to joint analysis and evaluation and attempt to determine in depth why they felt as they did and how much they themselves contributed to problem situations. The suggestion was therefore made that faculty committees wrestling with the problems of achieving consensus on curriculum change would welcome a report of the students' evaluation of the curriculum. There was no commitment made, however, that any faculty committee would abide by or accept any recommendations of the group. Indeed the commitment on both sides of the issue had to be tentative because the verbal contract the leader made with the group members stressed the preservation of their anonymity, both individually and collectively. The leader therefore could promise only to ask the group if they would share their thinking with faculty, and that, only when they had reviewed and accepted the evaluation report. Both sides, however, justified the faculty's confidence in their willingness to cooperate. *Students were eager to share their carefully examined awareness with faculty and the faculty committees were equally eager to receive them, and so a fifth goal was added to the project; i.e., to provide a promising and dynamic evaluation of the medical school curriculum.*

About 90 students responded positively to our invitation to join the discussion groups. These were divided randomly into three groups of 15, called the participants, and 45 others whom we could not accommodate in the groups, called the controls. Each group met for an hour a week for the first ten weeks of the freshman year. Each group also included as a resource person a senior physician. In this case Dr. Graham Beaumont was present to help interpret the realities of medicine to the students and to share with them the feelings of a card-carrying physician about their pressing issues. At the end of each group session the leader would dictate a three or four page summary of both content and process of the meeting.

At the end of the ten weeks the group leader assembled the summaries of the 30 sessions and put together a comprehensive report covering the content and process of all three groups. While each group was unique in its composition and interrelations, one could observe many concerns common to all. At no time did one group's discussion seem to contradict another, but one discussion often substantiated or complemented the other. Like a kaleidoscope, each group's content pattern could stand by itself but became richer and more meaningful when melded with the others.

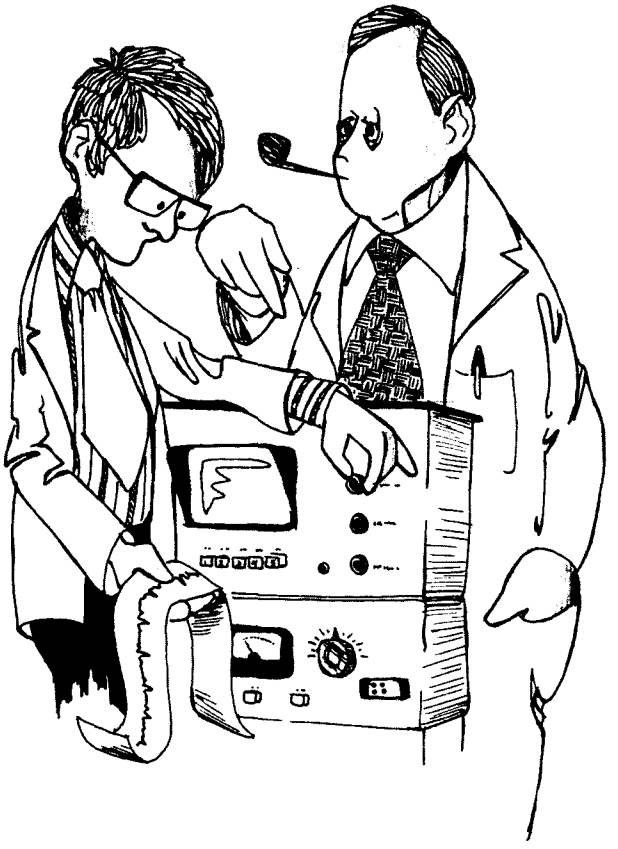
At the same time the groups' physician was compiling a series of issues from the group that he felt were important. The final report to the special session of all participating members was a combination of the two leaders' reports.

All participants were invited to a meeting where the final report was presented. A lively discussion followed, producing a few minor changes in the report. Each group selected two students to accompany the leaders to any faculty curriculum committee meeting. The discussion at these meetings was, if possible, more lively. Frequently it was the students who counseled moderation, pointing out that they represented only 45 out of 160 students and while they felt they reflected class views they still could be biased. The faculty was impressed by their data and the way it was supported by their own observations and incorporated eight out of the eleven recommendations made by the groups, including the one that every student should be given the opportunity for a group experience.

More importantly, faculty recognized the usefulness of the process. It was apparent that a massive curriculum change was in the cards.

It was equally apparent that with a system as complex as a medical school in a society as complex as ours a change in any part of the system would only throw into relief another part that now needed readjusting. In order to keep abreast of the needs of this ever-developing system it was necessary to construct a process whereby, if possible, each new step of the curriculum would be evaluated for the purpose of deciding what should be the best direction that the next new step by the faculty should take. They therefore suggested that we continue to meet with three randomly selected groups of incoming students, continue to evaluate together the effect of the current curriculum, and continue to share with faculty curriculum committees when member consensus on the year's report had been achieved. This has been done. Regular time has been made on the agenda of the Educational Policy Committee for the feedback of these reports. Other evaluation procedures are being used as well and policy decisions are the result of careful weighing of the data from all sources against the judgment of senior faculty. Yet one senses a subtle difference in the consideration of planning for change. **One does not see a position of "change for change's sake," nor a resistance to change as "evidence of failure." Rather, one sees the acceptance of change as a functional response to the needs of a growing system. The question each year is not, "Should we change?" but "What needs to be done differently this year?"** It is entirely possible that as the process continues we might turn around and reinstate a policy or program abandoned a few years before—but it will be in response to and because a specific need for it is again in evidence. Such an approach demands a dynamic posture on the part of the medical school. It connotes on one level the determination of the school to remain relevant and sensitive to the demands of the moment, but even more important, indicates the school's readiness and ability to respond to the changing needs of the student body. The student body, in turn, knowing its judgments often result in action, tends to be more and more careful about committing themselves to any particular recommendations.

Although the process has been active for only three years there is an already observable lessening of tension and growth of mutual respect between students and faculty. There is an air of expectancy and excitement in the halls of Mayo Memorial Building. No one expects things to be perfect—indeed there will no doubt be some monumental goofs, but we are prepared. One thing seems certain—the medical school faculty, prodded by the current generation of medical students, is going to try to lead the way into the Age of Aquarius rather than have itself dragged into it kicking and screaming! □



A new vogue in Learning . . . Learn not from me but from the machine.

Phase A Evaluation:
A Summing Up

by Josephine Cassie
Research Associate

I. Introduction

In preparing this report of the Phase A Evaluation it became very apparent that a comprehensive report analyzing the results of the evaluation would encompass at least a book and would take considerably more time and staff than was available. It was also felt that such a comprehensive analysis would not necessarily be a better way of presenting the data. Consequently, this paper is an attempt to present only certain highlights of the evaluation dealing primarily with those areas specifically linked to some of the stated objectives of Phase A. For a more in-depth look at the information gathered, copies of the questionnaire with the raw data, summary tables, and summarized student comments will be available.

By and large, sections of the questionnaire dealing with specific courses, with the exception of the two new courses, will not be discussed in this paper. Instead, results, tables, and summarized comments will be sent to the department concerned. One or two common areas will be touched upon here, for example, student reaction to lectures, labs and examinations.

Several objectives have been stated for Phase A of the curriculum. These include:

1. Reduction of basic science material to a core curriculum.
2. Correlation and integration of subject matter, especially in Anatomy.
3. Coordination and communication between basic medical sciences and clinical fields.
4. Early clinical involvement of students with patients, and
5. Introduction of behavioral sciences into the curriculum.

This paper will attempt to indicate what student reaction to these objectives has been, particularly in terms of the two courses introduced last fall —"Introduction to Clinical Medicine" and "Human Behavior."

II. Areas of General Interest

The overall reaction of students to the first phase of the new curriculum has, by and large, been quite favorable. On a five point rating scale from strongly negative (1) to strongly positive (5), 63% of the students gave a rating of 4 or better. Students felt that correlation, at least in Anatomy, particularly Gross Anatomy and Embryology, had been very helpful to the extent that it was done. Little mention was made regarding correlation with other of the basic sciences, although the lecture topic sequence in Biochemistry helped somewhat in integrating this course with others. Reference to problems of clinical relevance in basic science courses was seen as helpful in learning, and tended to add interest.

The reduction of basic sciences to core materials was not probed at any great depth, but those comments dealing with it tended to be mixed. Several elements indicated that one of the problems might be in faculty reaction to the idea of core and the general reduction in basic science time. As one student put it, "Too many teachers wasted time telling us how they didn't have time to give us the whole scoop."

With the changing curriculum and the emphasis on the "Student as Learner," the lecture as a method of teaching has come under a great deal of criticism. Data from the questionnaire seems to indicate that students **do** appreciate lectures. In Microbiology, lectures were rated by 73% of the students as very helpful (a rating of 5 on a 5-point scale), 88% reported that the lectures made it easier to skim through texts and 83% said the lectures stimulated them to use texts and other resource material. In Gross Anatomy, also, lectures were rated as very helpful (5) or helpful (4) by nearly 100% of the students. Likewise in Embryology, the clinical correlation lectures were rated highly by 90% of the class. This would indicate that students find nothing inherently bad about lectures, but they also have no compunction about panning lectures which are not well planned, incoherent, or badly presented.

Basic science labs also have come in for a fair share of criticism. Some of the labs, such as Microbiology, were considered helpful in promoting understanding of the course; others, notably

Speak to me only with thine eyes.

Biochemistry, were recommended to be dropped. However, by and large, student comments seem to indicate that labs require more time than the amount of learning involved would warrant. Many students indicated that demonstrations would be more valuable, a few indicated that the experience of "doing" was valuable to them.

Since changes have been made in the grading system of the school, students were asked to comment on the use of examinations in Phase A. Most students felt that the frequency of examinations given in each course was about right, with the exception of Histology, where 44% felt that too few were given, and Physiology, where no compulsory exams were given. The Physiology experiment brought to light several interesting points; first of all, that if compulsory exams are given in any course, studying for that course has priority. Many students found it easy to slough off studying for Physiology because pressures were greater elsewhere. Secondly, students who are competitively oriented find themselves at a loss without compulsory exams. This is not to imply that a system of compulsory exams is the best system, but it does indicate a need for uniformity and a great need for a period of adjustment in a system of non-compulsory examinations.

Students indicated a number of preferences with respect to examinations. A majority of the class felt that optional quizzes would be useful, and that take home exams would be a good means of providing useful feedback. General comments on examinations indicated a preference for learning types of examinations with immediate feedback and discussion following exams. Also stated as a preference was more subjective type examinations (essays and orals) which would aid students in developing skill in expression. Parallel to this is the frustration of multiple choice type examinations which don't give the student a chance to "tell what he knows."

One of the changes brought in by the new curriculum has been the loss of the summer in order to allow for the possible completion of the medical course in three calendar years. Students were asked whether or not they were planning to pursue the three-year curriculum. Sixty-three percent indicated they were, primarily for financial reasons and because they were anxious to get finished with school. Those who plan to take four years indicated that they would like to take advantage of the free quarter and the elective quarter; several commented on the need to "get away from medicine" for a while — something which would likely not be possible after graduation.

An effort was also made to determine the extent of financial hardship which might be placed on the student due to the loss of summer earning power. Most students (90%) indicated they would have used the summer to earn money for next year, but only 54% indicated that they planned to apply for loans. **Total lost summer earnings which would have been applied to next year's expenses is estimated at $128,700; total amount required in loans for next year is estimated at $155,100.**

III. Introduction to Clinical Medicine

Two of the objectives of Phase A stated earlier, "Coordination and communication between basic medical sciences and relevant clinical fields" and "Early clinical involvement of the students and patients," deal quite directly with the course "Introduction to Clinical Medicine." Several goals of the course were presented to students to indicate how well the goals had been reached. Table A summarized this information. Results indicate that students seemed to feel that all the stated objectives were at least adequately attained.

The Tutor-Buddy system, instituted with this course appears to have been quite successful with 91% of the students rating the tutorial sessions as either 4 or 5 (5 being very useful) and 63% of the students giving either a 4 or 5 rating to the buddy sessions. **Most comments on the tutor sessions indicated enthusiasm regarding the hospital vs. the classroom setting ("The sessions gave me a feeling for what the 'real world' of medicine is all about")**, and the clinical relevance ("Learning about a disease state and actually seeing it are two very different things"). Students also appreciated the opportunity of close contact with physicians. Advantages of the buddy sessions were primarily those of getting to know an upper classman and the fact that students find it easier to ask questions of other students than of faculty.

TABLE A

Goals of the "Introduction to Medicine Course" with student perceptions of how well they have been reached.

	% of students indicating this level of achievement		
	Very well	*Adequately*	*Unsatisfactorily*
To introduce patients to students early in the curriculum	67	28	4
To demonstrate commonplace clinical applications of the fundamentals presented during Phase A	42	43	14
To help the students develop basic concepts of the physician's attitude	57	36	6
To help the student develop a basic understanding of the doctor-patient relationship	49	39	12

One of the questions which comes up frequently in regard to early introduction of patients into the curriculum, is that of the amount of active involvement there should be on the part of the student. Students were asked if they felt ready for a more active involvement by spring quarter and responses were fairly evenly divided. This question is probably one requiring individual consideration rather than mass action.

While the tutor system was viewed enthusiastically by most students as contributing to their learning, reactions to the Saturday morning sessions were much less clear cut. Students were divided on whether or not sessions should be held spring quarter and they were also divided on whether or not to hold some evening sessions. However, if evening sessions are to be held a majority of the students would prefer them in conjunction with a social event such as a pot luck supper. Comments on the Saturday morning sessions were also mixed — many were very enthusiastic ("The sessions were well planned and effective") but more were lukewarm and a number were quite critical ("Some sessions were a waste of time"). Students suggested that there be more student involvement in planning, more use of audio visuals with fewer speakers, and that at least some sessions should be interdisciplinary.

IV. Human Behavior

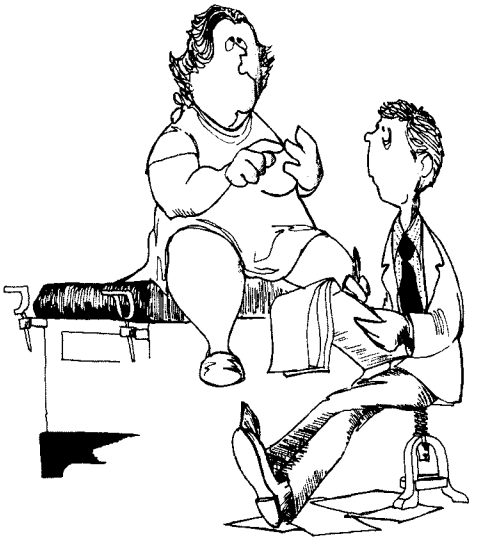
This course, in which students were given didactic instruction regarding human behavior, and small group experience, drew mixed reactions from first series of lectures was character- in two series, quite different from each other in style and presentation. The first series of lectures were characterized as being informal and interesting with much of the positive rating being due to the lecturer's style of presentation. Students apparently enjoyed the informality and discussion-like tone. However, they also found the first series of lectures somewhat lacking in depth with little concrete material; thought provoking but not really informative, more entertaining than enlightening and generally just "common sense."

In the second series of lectures the negative features were described in terms of the lecturer's lack of rapport with the class ("His attitude and the class reaction to it were neither helpful nor friendly"). The daily quizzes were seen by the students as "treating medical students like high school students" and for those students with a background in psychology the lectures were considered repetitious of undergraduate work.

Students felt that more handouts would be desirable from both lecturers, vocabulary lists would be helpful especially to those with no psychology background, and that reading assignments would be useful. Other areas of content seen as deserving attention in the course included sexual behavior, child behavior and development, other theories of human behavior besides the Behavioristic, psychopathic behavior, more time given to cognitive, developmental and social psychology, more information on recent clinical studies and treament methods and others. The students felt that several areas could be dropped, for example the lecture on tattooing, even though it was particularly interesting.

The small group sessions of the Human Behavior Course also met with mixed reactions. A majority of students (78%) attended at least three-quarters of the sessions but there was an almost 50:50 split on whether the benefits gained were commensurate with the time spent. High among student comments was a perceived lack of direction. Some of the groups appear to have drifted with little perceived purpose. Some students felt that groups should be free to specify their own goals but that every group should specify directions in which to move. Student comments indicated a split between those desiring content oriented discussions and those wanting groups to be interaction oriented. The importance of the leader came through very clearly to the students and frequent comments were directed toward the need for skilled leaders.

Even though many negative reactions to the group sessions were expressed, the overall reaction was on the positive side and students recognized that even if their particular group did not do well, that the idea behind small group sessions has a good deal of potential. In order to accommodate both the content oriented and the interaction oriented students it was suggested that next year several kinds of groups be made available so that students could choose the type of group most suited to his needs as he perceived them. □



Let me see now. I have three fingers and four toes.

The Artist as Teacher.

ON THE ART OF MEDICINE

by Dr. Reuben Berman, Med. '32

Two similar patients, Mr. Able and Mr. Baker. saw their physicians, Dr. Alpha and Dr. Beta, with the complaint of constipation. Dr. Alpha's examination of Able revealed no abnormality and a laxative was prescribed. Six months later Mr. Able was admitted to a hospital with crampy abdominal pain. He was found to have a sigmoid cancer which at operation had also seeded the liver. He died a year later. Mr. Baker had a somewhat different experience. The physical examination was also negative but Dr. Beta did a proctoscopic and barium enema examination, discovered the cancer, and recommended immediate surgery. Unfortunately his advice went unheeded. Beta made the following note on his office record: "Mr. Baker has been informed that he has a cancer of the bowel. The necessity of surgery has been explained to him but he refuses operation. All of my arguments have been resisted therefore I am discharging him from my care." **Six months later Baker followed the same course as Able and he was dead and buried 18 months after his futile visit to Dr. Beta.**

No one questions the culpability of Alpha, M.D. And everyone has kind words for Dr. Beta for his careful workup and discovery of the cryptic tumor. But Baker died exactly as Able did. Beta actually accomplished no more for his patient than Alpha. (Practically Baker fared worse with his relatively asymptomatic period of six months marred by the knowledge of fatal disease.) Dr. Alpha failed scientifically; he didn't find the lesion, a total failure. Beta also failed though more subtly. **His was an artistic failure; he found the lesion and knew what to do about it. But he couldn't sell his therapy and his failure was just as total.**

The physician should extend his responsibility beyond diagnosis and recommendation. He does not relieve himself of moral responsibility by noting the intransigence of the patient on the progress sheet, by signing him out against advice, or by otherwise divesting himself of the care of the patient. A better note on Beta's private records might have simply stated: "Beta is a scientific success and an artistic failure; hence, failure."

The science of medical care is twofold: to

find out what is wrong and what to do about it, and secondly to apply the treatment. The art is largely putting these two together. The science rates four years of medical school, is the beginning and end of most board examinations, and is the subject of libraries full of articles. The art is a step-child. It is largely self taught and only assumes its proper value when the young doctor suddenly has to measure his success not by grades and various diplomata on the wall but by filled chairs in his waiting room. The most scientific brain in the medical world is of no value to the patient who won't come to the doctor.

The art permits the doctor to examine a patient who says: "Leave me alone—don't bother me." A junior medical student was told by a patient at Mount Sinai: "Get out of my room! I don't want to be pawed over by the house staff!" The student calmly replied: "I am not house staff. I'm a University of Minnesota medical student" and proceeded to examine the patient down to and including a rectal examination. *Artistic!*

The art instills confidence in the anxious patient faced with the need to make colossal decisions. How can a cardiologist ask a patient to submit to a sternal splitting operation laying open the chest like for an autopsy, lowering body temperature to morgue readings, stopping the heart and respiration so that the only sign of life is the brain wave, hopefully resuscitating 80% after the chest surgeon does his thing? The decision for such surgery is arrived at scientifically. The discussion with the patient is mostly art. Surely there will be informed consent obtained with an explanation presumably scientific. But the consent is given when the patient (1) is convinced the doctor knows his business; (2) considers him his friend (Doctor, if the patient were your own mother would you recommend the surgery you are recommending to me?); and (3) is ready to commit himself to the doctor's hands.

The physician acts out these three steps, never in these words, but this is the idea:

1. **"You know I am a great doctor.*** Scan those diplomas on the wall. Consider my great reputation. You know I know what I'm doing.

2. **"I am your friend.**** I would do nothing to harm you. Your well being is my only consideration.

3. **"I will explain everything to you.***** You will give an informed consent. But realize that without going through medical school you cannot possibly understand the implications of this difficult but necessary therapy. Even though you cannot logically think this thing through, I am asking you to leave the decision to me and relax in the knowledge that you are in the best of hands."

I repeat, not one of these words is actually spoken. The steps are acted out and the communication is mostly non-verbal. It is an extremely effective technique not to be lightly used and employed only in really critical situations where the advice is unequivocal.

Perhaps Dr. Beta had truly done his best. Perhaps Mr. Baker has only himself to blame for his untimely demise. But the medical profession stands to improve the art by thinking "Mea Culpa" as much for Beta and Baker as Alpha and Able. □

* A sure sign that the patient has had enough of logic and wants some good old fashioned sympathy just like you would give your mother.

** The danger here is that the oft repeated enactment of this little scene leads the doctor to believe it himself; a sure sign of approaching senility.

*** This is no time to explain that you are collecting cases for a paper on this problem.

YOUR FIRST PATIENT

by Carol Erwin, '72

Note: The incidents you are about to read about are *true;* any resemblance to any actual patient, living or dead, was planned that way.

1. Standard instructions will tell you the first thing to do is introduce yourself to the patient and be sure he gets your name straight. This is not exactly true. The *first* thing to do is find your patient. If someone in a bathrobe slips into a doorway as you approach, peers out anxiously as you pass, and then walks quickly in the other direction —grab him. He either is your patient or thinks he is. If he gets away and you can't find him within half an hour, it is considered fair to ask for a different patient. Note—if no one on the floor can find your patient in half an hour, and you're sure you weren't spotted coming down the hall, check the diagnosis on the chart. If she has hypothyroidism it may be hours before anyone discovers her, sound asleep on the toilet in the ladies room down the hall.

2. Next, be sure you have the right patient. The man sitting on Mr. Abernathy's bed need not be, in fact, Mr. Abernathy. What's more, he won't tell you he isn't unless you specifically ask. It can be embarrassing to spend an hour and a half with a patient, present your findings to your tutor, and then discover you have just examined Mr. Dunwoody.

3. Introduce yourself clearly and distinctly. It does no good to slur over the fact that you are a *student* doctor; the sophisticated patient can tell this the minute you walk in the door. On the other hand, don't emphasize it. Some patients are notoriously uncooperative for students. This ranges from "It'll cost you a quarter a poke," all the way to "No medical student is going to stick a finger up my ass!". The ultimate in passive noncooperation is the patient who doesn't answer your questions, he just lies there and opens his eyes when you ask a question, then shuts them again waiting for you to go away. This can be very unnerving to the novice. Here again, if he refuses to answer even when you ask him if he'd rather you went away, it is considered fair to ask for a different patient.

4. Once you have started on the workup, hang on to the patient. This may be difficult. You can often forestall nurses wanting to do EKG's or start IV's or some such nonsense, but it's hard to fight two orderlies who come in to pack your patient off to surgery halfway through the history of the present illness.

5. If you are a female and your male patients get too interested in you, a dimestore wedding ring may help. This is seldom a problem, as most of the patients assigned to you in physical diagnosis are too sick to be interested in sex. (Unfortunately, many of them are also too sick to do a complete workup on. The patient dying of terminal emphysema or in intensive care from carcinoma of the pancreas really doesn't care if you're male, female, or a trained chimpanzee, as long as you get it over with and leave him alone.)

6. A word of advice on trying to handle the relatives—DON'T. The least obnoxious ones are those who grab you in the hall after the workup and want to know if Dear Old Aunt Mary is getting along all right. (Note—be careful what you say here!) The next group consists of daughters and daughters-in-law who visit the aging patient en masse. When you walk in and announce that you are a medical student and you plan to examine her, you give them their cue for "I don't think that's necessary," "She's tired now," and "I hardly think you need to practice on *mother*." Then you have the jealous husband who refuses to let any male staff doctors examine his wife, much less a medical student — and who telephones her every 15 minutes to be sure his orders are being obeyed. The prize, however, must go to the mother of a pediatric patient who tells her child "Say no, dear—let's see how good a doctor he is."

7. Take time for a thorough history and physical exam. This can be a problem, admittedly, when you begin 45 minutes late after progressing through three unsatisfactory patients before getting one you could do a workup on. It is more of a problem if the final patient is an 80-year-old lady who's deaf in one ear and can't hear with the other.

8. Be sure you tell the patient that your group will be coming back to see him a little later. It can be unnerving to have your 22-year-old female patient shriek in horror as you all file in to listen to her heart murmur, and shout, "You didn't tell me the whole damn class was coming!"

9. When leaving the patient, be cheerful yet professional. If your patient turned out to be a girl you knew quite well before entering medical school, be careful in your choice of words. After examining her thoroughly for 1½ hours, it is not considered good form to wave cheerily and say, "Well, it was nice seeing you." □

A DRIVING FORCE IN NEUROLOGY

by Robert Lee

Dr. A. B. Baker

Organizational ability, listening perception, and an abiding interest in the patient have been the keystones of Dr. A. B. Baker's successful career as an educator and clinician.

For more than 35 years he has been a contributing and driving force in neurology at the University of Minnesota, in the United States, and internationally. It is virtually impossible to separate his activities into teaching, research and professional service categories.

He was an honor student at the University of Minnesota, receiving six degrees from 1920 to 1934. His first teaching jobs at the University were in neuropathology and neuropsychiatry. In 1946 he was named professor and chairman of neurology. Dr. Baker directs the largest neurology department in the country. In the 14 years of his chairmanship, the department has achieved a million dollar budget and gone from one to 28 residents from 22 to 39 full-time staff people.

Each new day finds him in stimulating exchange with his residents and students, initiating and relating laboratory research to his patients, and seeking a greater share of the research dollar and recognition for his field—neurology. According to one of his recent students, Dr. Baker, who was born March 27, 1908, is a typical Aries: "**A strong sense of discipline, self-assured, and enthusiastic.**" Another students says emphatically that Dr. Baker is the best clinical instructor in the Medical School. He has always been held in high esteem by both medical students and graduate students on his service.

During the years the student body cited the outstanding teacher in the Medical School, Dr. Baker was a consistent winner. Dr. Baker's lectures to students are always well attended. His organization, sense of drama, and use of audio-visual aids get both his technical and philosophical messages across. All of Dr. Baker's compassion and understanding are eventually focused on his patients. Students, nurses and staff are impressed with his special relationship to his patients. "He really listens to them," reports a nurse on the neurology station. "He knows what he wants to do and does it. He expects a lot from his staff and works hard to motivate them. He really appreciates the team effort."

Dr. Baker is happiest when he's on the ward and making rounds, even a chance meeting in the hall can turn into an impromptu lecture. His "total treatment sessions" are attended not only by students, staff, and nursing personnel, but dietitians, social service workers and allied health workers responsible for the patient's well-being. Detailed attention is given to every aspect of the patient's recovery both in the hospital and at home.

He is usually at work shortly after 7 a.m. and, according to his staff, doesn't realize there's an eight hour day. His residents are urged to call him at any time during the night if a problem arises. His residents are taught to think on their feet. They are taught the rules of practice, and as he phrased it once, "Spend the rest of their practice learning the exceptions to the rules."

Several pictures of his wife, children and grandchildren indicate he enjoys his family life. Recreation time is necessarily limited, but Dr. Baker does walk and swim for exercise and the whole family enjoys their lake home near Brainerd. Encased in one corner of this paneled office is Dr. Baker's collection of reflex hammers. *As an example of his attention to detail Dr. Baker has developed his own special long-handled reflex hammer which he presents to each of his graduating residents.* There apparently is very little free time, but he is able to accomplish so much because of his organizational ability.

Dr. Resch, first resident in the old division of neurology, emphasized Dr. Baker's remarkable foresight in research, recalling Dr. Baker's pioneering work years ago in developing rehabilitation procedures for chronic neurological diseases; his comprehensive correlation of pathological and clinical studies of bulbar poliomyelitis; and more recently his interest in the etiology of cerebral arteriosclerosis and strokes. Dr. Baker's interest in neurology at the University of Minnesota was fostered by Dr. Elexious T. Bell, chairman of the pathology department. During the work for his Ph.D. thesis for Dr. Bell, Dr. Baker became the first person to successfully isolate the encephalitis virus. His interest in nervous system infection has continued, and Dr. Baker is preparing a two-volume text on the subject.

In 1955, after 10 years research, Dr. Baker edited the first reference work on all phases of clinical neurology. The three-volume work proved so popular it was out of print in 18 months. A four-volume second edition was published in 1962. A third revision, with five volumes, will be published in about six months. He recently completed a seven-year etiological study of cerebral arteriosclerosis in five countries. Some 10,000 patients were studied in the U.S., Norway, Japan, Mexico, and Nigeria. Currently he is in the midst of a clinical study of cerebrovascular disease trying to determine what factors predispose strokes.

Dr. Baker has never lost sight of the clinical applicability of research. Even though his first love is teaching he has tried to provide fertile ground for research at all levels. The energy Dr. Baker brought to his teaching and research was also brought to furthering the field of neurology, both in this country and internationally.

Even though it would seem he doesn't have a lot of time to devote to professional activities, he does manage to remain in the forefront of national neurological activities. He became a member of the prestigious American Neurological Society before he was 35 and currently serves as the ANA's President. The ANA, one of the oldest neurological societies in the world and the senior U.S. society, has a closed membership of less than 300 proven clinical researchers. Dr. Baker considers it his top honor. He has held virtually every other high professional and governmental office relating to neurology.

To sum up, Dr. Baker has, in no small measure, been instrumental in the renaissance and growth of neurology on the local, national and international scenes. □

ALUMNI SURVEY

Class of 1950

"We own and live on a 200 acre farm and enjoy showing and raising quarter horses," says **John H. Allen.** He practices in Montevideo, Minnesota in a 2-man group. John and his wife, Marjorie, and their 3 daughters live at Rural Route 5. *Dr. Watson, Wangensteen, Visscher, Gellhorn and Rasmussen.*

David Allison is a solo G.P. in Litchfield, Minn. He says, "I enjoy obstetrics and surgery most in my practice." Dave and his wife, Georgia, have 5 children and live at 603 West Crescent Lane. *First surgical scrub on a gastrectomy.* MMF member

Pediatrics and allergy is the specialty of **Sol Austrian.** Sol and his wife, Betty, have 3 children and live at 2104 Edgcumbe Road, St. Paul. He is a clinical instructor at the U. of M. Hard work but enjoyable. **MMF member

"My hobby is my lake cabin and all that goes with it," says **William A. Autrey.** He has been chief of staff at St. Cloud Hospital since 1955, and is now president of the Stearns-Benton County Medical Society. Bill is G.P. practicing at Doctors Park. He and his wife, Marcia, have 5 boys and 2 girls and live at 1866 Kilian Blvd. *Drudgery.*

Numismatics, antique weapons, amateur archeology, and wildlife photography are the hobbies of **Roger M. Berg.** He is a radiologist with the Quain & Ramstad Clinic in Bismarck, N.D. Roger took his residency in Bismarck Hospital. He and his wife, Florence, have no children and live at 219 Ave. B West. *Dr. Bell's clinical pathological conferences.* **MMF member

Obstetrics and gynecology is the specialty of **James R. Bergquist,** a clinical assistant professor at the U. of M. Jim and his wife, Betty, have 4 children and reside at 600 Turnpike Road, Mpls. *Dr. Watson's internal medicine finals.* **MMF member

"My wife is a R.N. and runs the office and assists in surgery," says **Harry H. Billings.** He is a soloist in general surgery in Red Wing, Minn. He is also chief of surgery at St. John's Hospital and a part of the consulting staff at the Lake City Hospital. Harry and his wife, Mildred, have 2 sons and 2 daughters and live at 1620 Sumue Drive. *The intensity of purpose of the students, we were all veterans and we knew what our goal was.* **MMF member

Frank J. Bonello is a solo G.P. practicing in St. Paul. His hobbies include traveling, photography, movies and flying. Frank and his wife, Elaine, have 6 children and 2 grandchildren. They live at 701 Manomin. **MMF member

Pittsburg, Ca. is the home of **Charles C. Brisbin.** He has been in general practice for 18 years at this location. Chuck and his wife, Pauline, have 6 children and live at 1281 Beacon St. He enjoys golf and welding. *Identifying a case of malaria, diagnostic problem transfer from Gyn. to med. service.* **MMF member

Roland G. Brown states, "One beautiful, understanding wife and five healthy, fascinating children make my life a happy one." He is in general vascular surgery with a two man partnership in San Diego. He also teaches at the University of California. Roland and his wife, Lucy, and children live at 5673 Marne Ave. *The discovery that the science of medicine is exact.*

Charles V. Carlson practices with the Mound Medical Clinic as a G.P. He has been with this group for 16 years following his service with the Navy. Chuck and his wife, Anita, have 4 children.

"I have remained on the teaching faculty in the Department of Physiology, continuing research in metabolism of muscle and general physiology, and have been involved in the administration of the U. of M. Medical School since 1957," states **H. Mead Cavert.** He is chief executive officer of the Medical School, U. of M. He and his wife, June, have 3 children and live at 3328 48th Ave. So. *About 90% of the Class of '50 were WW II veterans receiving G.I. Bill education benefits. This fact gave a distinctive quality of motivation and maturity to that class.* **MMF member

"I am in solo practice of ophthalmology and have been in the same location for the past 14 years," says **Kent W. Christoferson.** Kent was a Naval Medical Officer and traveled to Europe, Korea and Japan before his release in July of 1953. He and his wife, Mary, have 5 children and live at 2396 Olive St., Eugene, Oregon. *The good companionship and good times we had at the old Nu Sigma Nu Fraternity House on Union St.* **MMF member

"I find I have so many balls in the air that the future must continue to be a rather steady juggling act," says **John A. Culligan.** He is a thoracic surgeon in a partnership with his brother, Med. '61. John and his wife, Sheila, have 7 children and live at 976 Summit Ave., St. Paul. *Dr. Varco's surgery*

Italics relate most vivid memory of Medical School.

exam, "Name 10 contributors to Christophers Surgery" and no one knew!

E. P. Donatelle is a G.P. who is active in the Minnesota Academy of General Practice and president elect of that Academy. Ed enjoys boating down the Mississippi River, skiing in the Rocky Mts. and gardening. Ed has been in general practice at the Southwest Medical Center since it was organized. Ed and his wife, Marian, have 5 children, including twin daughters and live at 5724 View Lane, Edina. *The terror of being asked to spot a neurological lesion from symptoms and signs dictated to us by Dr. A. B. Baker, professor of Neuro-pathology.* *MMF member

Ed Donatelle

John J. Dwyer is a partner in general practice. He was in the Air Force during WW II. John and his wife, Dorothy, have five children and live at 3525 East 2nd St., Duluth. *Dr. Rasmussen — his lectures and his drawings.*

"I am chairman of the Bureau of Research and Planning for aviation medicine," says **Henry V. Eastman.** He is a solo G.P. and the Eastman's have 3 children and reside at 1672 Sierra Alta Dr., Santa Ana, Ca. *Leo Rigler's lectures and Wangensteen's memory.*

Orthopedic surgery is the speciality of **Evan S. Ellison.** He is also a clinical assistant instructor at the U. of M. Evan and his wife, Syrile, have 5 children and live at 6466 Westchester Circle, Golden Valley, Mn. The family enjoys sailing and skiing. *Dr. William O'Brien's lectures on clinical medicine in freshman year.*

Malcolm M. Fifield is in a 3 man urologic group. He and his wife, Nancy, have 7 children. The oldest is in pre-med at the U. of M. The family enjoys sailing in the summer and they're amateur hockey buffs in the winter. They live at 2531 E. Superior, Duluth. *An "A" in the first Anatomy midquarter.* **MMF member

Margaret S. Filante retired in 1967 from private hospital practice in Physical Medicine and Rehabilitation. She and her husband, William, Med. '50, have 3 children and live at 33 Wolfe Grade, Kentfield, Ca. She enjoys making jewelry, belly dancing and tennis. *Mine all seem to be unfit for publication.* **MMF member

William J. Filante states, "I am working on the causes and solutions of poverty and am active in the Henry George School of Social Science." Bill is a solo practitioner in ophthalmology and is a part time teacher at UC Medical Center, San Francisco. Bill and his wife, Margaret, Med. '50, and family live at 33 Wolfe Grade, Kentfield, Ca. *Dr. Rasmussen's highspeed, surrealistic lectures in Neuroanatomy.* **MMF member

Martin C. Florine is a solo internist specializing in family care. Martin and his wife, Dorothy, have 6 offspring and live at R.R. 1, Madison Lake, Madison Lake, Wisconsin. *"Not for Print" — a quote from Dr. McKelvey.* **MMF member

"After finishing a Medicine residency at Mpls. General, I was in private practice in Glendive, Montana for 4 years. Since then, I have been full-time at the U. of M. with the Health Service and as a clinical teacher in the Dept. of Medicine," says **Joyce L. Funke.** She has been elected to the Who's Who of American Women and lives at 1276 Bayyard Ave., St. Paul. *Summer, 1948, externships under Dr. C. J. Watson and Dr. E. T. Bell with their inspiring personal tutelage.* **MMF member

"I have continued in medical administration and internal medicine," says **Neal L. Gault.** "The Gaults have profited greatly from living in Korea and Okinawa for four years and learning to appreciate the customs and social characteristics of these societies," adds Neal. He is professor of medicine, chairman of the department of medicine and associate dean at the University of Hawaii. He and his wife, Sarah, Med. '50, have 3 children. *Hard working, mature classmates exposed to excellent clinical teaching by an unforgettable faculty.* **MMF member

"I retired for one year to assist the family in settling in Honolulu," says **Sarah J. Gault.** Her specialty is physical medicine and rehabilitation. The Gaults live at 3130 Oahu Ave.

"My hobby is a farm," states **Donald H. Gilsdorf.** He specializes in internal medicine. He and his wife, Marion, have 4 children and live at 2188 St. Clair, St. Paul. *The junior year when at last it looked like I'd be what I am, a doctor.*

John B. Hayes has a solo practice in psychiatry. He and his wife, Beila, have 7 children. John is concerned with the mounting problem of drug abuse, especially in the New York area, and therapy seems to be of little value. The Hayes live at 56 Blauvelt Road, Monsey, N.Y.

Dr. Rasmussen — drawing color neuroanatomy charts with one hand on board, and erasing with the other before they could be copied.

Al Hopeman

"I am enthusiastic about a new career in academic medicine after a challenging and exciting military career in general and thoracic surgery," says **Alan R. Hopeman.** He

is an associate professor of surgery at the University of Missouri, Columbia. Alan retired from military service after 23 years. He and his wife, Dorothy, have 5 children and live at 1701 Oakwood Ct., Columbia. *A noted junior staff surgeon neatly finishing his first patient, then dropping a needle in the chest which required an additional hour of hunting.* **MMF member.

Arvid Houglum

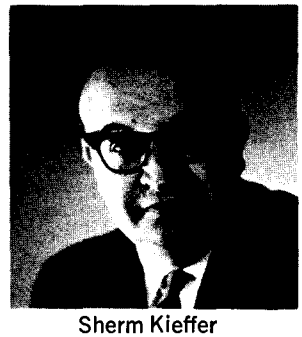
Arvid J. Houglum is in full time public health for the St. Louis County Health Dept., Duluth. He says, "Duluth's weather is ideal for raising roses. I recently joined the crowd and put a few in our backyard." Arvid and his wife, Winifred, have 4 children and live at 2320 East 3rd Street, Duluth. *Spending three successive 10 minute periods scrubbing and gowning before being certified as aseptic by Dr. Wangensteen.* **MMF member

Gerald E. Howe is in urological associates partnership in San Diego. He reports, "I climb mountains every 2-3 weeks and hunt for sheep but don't shoot any. I also fish." He and his wife, Elsie, have 2 children and live at 3703 Elliott Street. *The large number of repeat juniors who entered our class.* **MMF member

Heber S. Hudson's chief interest is in prevention of emotional disorder in preschool children. He has a solo private practice of child psychiatry. He and his wife, Janet, have 8 children and live at 1634 Sqaebrush Trail, S.E., Albuquerque, N.M. *Anatomy lab.* **MMF member

John E. Indihar specializes in general radiology and has a practice covering 3 towns. "Flying is my #1 hobby. My family enjoys skiing together and spending as much times as possible in our wonderful outdoor country," reports John. He and his wife, Marion, have 2 children and live at 910 12th St., La Grande, Ore. *Watson, Wangensteen, Boyden, Bell, Fahr, Rigler, Baker—they all stand out.* **MMF member

Warren Jensen is in medical administration. He and his wife, Harriette, have 5 children and live at 11605 Vantage Hill Rd., Reston, Va.



Sherm Kieffer

Rockville, Maryland, is the home of **Sherman N. Kieffer**. He is an associate director for patient care and director of the National Center for Mental Health for the NIMH. He has completed 20 years in the Public Health Service and has the rank of Assistant Surgeon General. Sherman and his wife, Natalie, have 4 children. **MMF member

Robert D. Kochsiek says, "We are a tennis family and my son is the L.A. all city doubles champion for 1970." Bob is an orthopedic surgeon. He and his wife, Lois, have 3 children and live at 4790 Norman Drive, Woodland Hills, Calif. *Anatomy Lab.* **MMF member

Per H. Langsjoen is chief of the cardiovascular section of the Scott & White Clinic in Temple, Texas. It is a sub-specialty group practice with about 115 staff consultants. He and his wife, Carol, have 5 children. The eldest entered Medical School in Galveston, Tx. this Fall. The Langsjoens live at 3005 El Camino Dr., Temple, Tx. *First meeting with "Dean" Smith.*

Donald M. Larson practices with 2 other pathologists at St. Mary's Hospital in Duluth. He and his wife, Leona, have 4 children. The family enjoys traveling and live at 2524 E. 6th St., Duluth. **MMF member

"The family enjoys sailing, skiing, hunting and tennis," says **Richard O. Leavenworth.** He practices ophthalmology at the St. Louis Park Medical Center. He teaches at the U. of M. and St. Paul-Ramsey. He and his wife, Ann, have 3 girls. *Dr. Boyden's blackboard drawings.*

Colorado Springs, Colorado, is the home of **Barton L. Lewis.** He has a private practice of dermatology at the Univ. of Colorado. Bart and his wife, Estelle, have 5 sons. They live at 1621 Vista Place. *Dr. Bell with tears in eyes on retirement.*

"I'm a solo G.P. and would like an associate from Minnesota," says **Ralph E. Meincke.** He is interested in the ocean, stream fishing and all types of hunting. Ralph and his wife, Gladys, have 2 sons and a daughter and live at 23 E. Bay Drive, North Bend, Oregon. *Final exam in pathology when Dr. Bell exhibited fatherly attitude when I couldn't write, due to 6 days of benzedrine to stay awake and seconal to get several hours of sleep during cramming for exam week.* ***MMF member

Robert J. Meyer is a radiology resident in Charles T. Miller Hospital, St. Paul. He and his wife, Betty, have 5 children. Bob was formerly in general practice in Spring Valley, Wis.

V. Edward Mikkelson is the father of 6 daughters, is a soloist in general practice, and part time in physical medicine and rehabilitation in Hayward, California. He reports he has 2 married daughters, one in Yale Law School and 3 in college ($$!!). The Mikkelsons live at 3082 Horseshoe Court, Hayward,

Ca. *First autopsy at Minneapolis V.A. Hosp.* **MMF member

Charles F. Miller is a solo urologist. He and his wife, Catherine, have 9 children and live at 15 Mercedes Way, San Francisco, Ca. **MMF member

Pat Moran

ENT is specialty of **J. Patrick Moran.** "I have been in the Angus cattle business and recently have built and developed the Corpus Christi Racquet Club. He and his wife, Nancy, have 4 children and live at 236 Circle Drive, Corpus Christi, Texas. *Instruction and guidance of Jerry Hilger.* **MMF member

Charles H. Nelson has practiced general surgery in Albert Lea, Mn., Albany, Ore., and now practices at the Magma Copper Hospital in Tucson, Arizona. In the Spring of 1968 he went to Vietnam as an AMA volunteer physician. He and his wife, Wilhma, Med. '52, have 4 children. *Dr. Wangensteen, master physician and mule skinner of the academic team, composed of exceptional men.*

David D. Norman is in a partnership of neuropsychiatry. He is the father of 4 children and lives at 886 Fairmount St., St. Paul, Mn.

Stephen T. Normann is a busy G.P. in Waseca, Mn. He has been there since his U.S. Naval Service. He and his wife, Agnes, have 1 daughter. *First day in anatomy. The scent was omnicient.* **MMF member.

Mark E. Odland has been in general practice at Detroit Lakes, Mn. since 1951. He and his wife, Ruth, have 4 children and live at 1148 Minn. Ave.

"I returned from practice in internal medicine from Brainerd to join the U. of M.'s Department of Family Practice & Community Health as an associate professor," says **John B. O'Leary.** He and his wife, Jean, have 4 children. John enjoys his new role in teaching and research. The family lives at 4555 Gaywood Drive, Minnetonka, Mn. *The tall white columns of the old Phi Bete House.* **MMF member

Melvin G. Oppen has been in general practice since 1952. He and his wife, Phyllis, have 3 children and live at 16251 Tonka Lane, Minnetonka, Mn. The family enjoys skiing, sailing and canoe trips. *Hard work and enjoyable friends.* **MMF member

Neil Palm is a general surgeon and past president of the Minnesota Medical Alumni Association. Neil and his wife, Mariellen, have 3 sons and a daughter and live at 1751 James Road, St. Paul. *Graduation.* **MMF member

Konald A. Prem is involved in academic OB-GYN. He is a professor at the U. of M. and his chief interest is in gynecologic oncology. Konald and his wife, Phyllis, have 3 children and live at 4806 Sunnyside Road, Minneapolis, Mn. *Skipping Peds Clinic at Mpls. General with Palm, Norman and Romness to play shuffleboard at Al Johnson's Bar; first interview with Dr. John McKelvey.* **MMF member

Arthur B. Quiggle is the chief of physical medicine and rehabilitation at Hennepin County General Hospital. The Quiggles live at 1906 Stinson Blvd., Minneapolis, Mn.

Pat Rollins is in partnership with M. G. Oppen at the Minnetonka Clinic. He plans to continue as a G.P. for a while and may retire at 60 to something less strenuous. Pat and his wife, Sue, enjoy their travels and photography, and have 1 son, James. *Dr. Rasmussen, drawing with both hands.* **MMF member

Kenneth B. Romness is in general practice at the Mound Medical Clinic. He and his wife, Shirley, have 4 daughters. One daughter is entering the nursing program at St. Olaf's.

Pathology is the specialty of **John E. Rosander.** He is the medical director of biochemical procedures at the San Mateo County Hospital. John and his wife, Barbara, have 2 sons and a daughter. The Rosanders live at 11534 Louise Ave., Granada Hills, Ca.

"My hobbies include wildlife photography and fishing. I made my 5th trip to the Arctic this past year and spent 3 weeks doing natural history study and photography for the Bell Museum of Natural History at the U. of M.," reports **George W. Rysgaard.** He is a G.P. with the Northfield Medical Clinic. He and his wife, Frances, have 2 children and live at 913 East 4th St., Northfield, Mn.

Richard J. Sells enjoys painting, golf, sailing and skiing. He has been a G.P. on the East Side of St. Paul for 17 years. Dick and his wife, Harriet, have 3 children. *Anatomy Lab.*

Thomas Semba is a pathologist at North Memorial Hospital and is a clinical instructor at the U. of M. He and his wife, Hannah, have 4 children and live at 5150 Wentworth, Mpls., Mn. **MMF member

Marc Shelander

Marcus I. Shelander has a full time practice of urology associated with Murray P. Ersfeld, Med. '39. He and his wife, Patricia, have 3 sons and a daughter. They reside at 100 Mid Oaks Lane, St. Paul, Mn. *Eating bag lunch while studying cadaver.* **MMF member

Harry J. Smith is a solo G.P. in Lake Crystal, Mn. He and his wife, Barbara, have 5 children and he has practiced at this location since graduation. *No one applying for an internship at the U. of M. Hospitals.* **MMF member

W. Thomas Spain is the director of medical education and chief of OB-GYN at St. Mary's Hosp., Evansville, Indiana. He is also an assistant professor of Obstetrics at the Indiana University Medical Center. **MMF member

Michael P. Sperl specializes in neurosurgery. He is a clinical assistant professor at the U. of M. Mike and his wife, Patricia, have 3 children and live at 448 No. Mississippi River Blvd., St. Paul, Mn. **MMF member

Robert R. Spurzem is in general and vascular surgery and assistant clinical professor at the Univ. of Calif., Irvine. Bob and his wife, Shirley, have 4 sons and the oldest is thinking about medicine. *The old Nu Sig house.* **MMF member

Photography, electronics, fishing and hunting are the hobbies of **Clifford J. Stadem.** He is a G.P. in a 5 man multispecialty group in Crookston, Mn. Cliff and his wife, Gladys have 5 children and live at 729 Park Lane. *Largely the various profs, both clinical and preclinical.* **MMF member

George T. Tani has a private practice of ophthalmology and teaches at the U. of M. He and his wife, Yoshi, have 3 children. One son is a 3rd year medical student at the U. of M. and another son is a first year medical student, also at the U. of M. The Tanis live at 810 E. Belmont, St. Paul, Mn. **MMF member

"I completed my urology residency July 1, 1970, after having been in general practice for 15 years," says **Albert L. Walonick.** He is now practicing at the Doctors Bldg., Mpls. Al is the father of 3 children. *Dr. Boyden's anatomy lectures and art.*

David D. Webster is involved in clinical neurology and Parkinson's disease research at the Minneapolis V.A. His hobbies include electronics, boating and fishing. Dave and his wife, Christine, have 2 boys and live at 6845 Pillsbury Ave. So., Mpls., Mn. *Gross anatomy with partners Tom Spain and Al Walonick — our cadaver was 98% metastatic tumor.* **MMF member

Lew Zahrendt

O. Lewis Zahrendt is a soloist in family practice and specializes in internal medicine, OB-GYN, and surgery. He has 3 degrees in Education and 3 degrees in Medicine. He has studied on every continent and at 35 different Universities. He and his wife, Delores, have a daughter who is a graduate of a 5-year nursing course at the U. of M. The family lives at 1307 June Ave. So. Tyrol Hills, Mpls., Mn. *Dr. Bell's class and Dr. McCartney's advice (my neighbor until deceased).*

DID NOT RESPOND TO THE 1950 CLASS SURVEY

Paul G. Bauer
William C. Broderick
Henry W. Cohen
Leonard W. Goldman
Matthew Gruber
Chester W. Johnson, Jr.
Edward A. Johnson
Leighton W. Larson
Roger C. Larson
Naomi G. Lund
Terence B. McManus
Robert C. Meade
Norman A. Nelson
Eugene F. Peake
Robert F. Premer
Jack W. Strand
Robert G. Ziegler

University Receives 22.4 Million NIH Grant

University health manpower development plans took a step forward recently with the receipt of a $22.4 million construction grant from the federal government.

The National Institutes of Health grant has been matched with state funds to build a 19-story facility to house the School of Dentistry, Basic Sciences of the Medical School, the School of Public Health, and shared classroom and laboratory space for medical students and other health professionals.

Excavation on the $45 million structure is expected to begin in two weeks at the Union Street-Washington Avenue site. Target completion date is late summer of 1973.

Dr. Lyle French, acting vice-president for health sciences affairs, termed the grant announcement "very good news for the state and the Upper Midwest." He added he expected the increased numbers of health sciences graduates would "improve health care delivery throughout the state and region."

Dr. Erwin Schaffer, dean of the School of Dentistry, explained his School will occupy six floors in the structure. Upon completion the entering freshman dental class will be expanded from 115 to 150; the dental hygienist class from 60 to 150, and the dental assistant class from 40 to 150. Moving the Dental School from Owre Hall will permit the expansion of the basic sciences areas.

The Medical School has already started to accept another expanded class of 225 first-year medical students. A special $1-million federal grant made this possible.

The School of Public Health will use space to expand its programs in epidemiology and physiological hygiene.

The 1969 Legislature appropriated $14-million for the building and the University plans to ask the 1971 Legislature for $6.9 million to complete the tower. □

ROBERT N. BARR, M.D.
1902-1970

Robert Neff Barr, M.D., spoke about public health as easily as most people say their names—not a surprising fact for a man whose entire professional life was devoted to the public health field.

Dr. Barr's 32-year association with the Minnesota Department of Health began in January 1934, when the young physician was appointed as epidemiologist in the Division of Preventable Diseases. It ended abruptly December 26, 1970, with the executive officer's unexpected death. Dr. Barr was the State Board of Health's fifth secretary and executive officer.

Born in Baxter Springs, Kansas, on September 16, 1902, Dr. Barr came to Minnesota with his parents at a young age. Barr attended elementary schools at Bruno and Battle Lake, and graduated from high school in 1920 at Fergus Falls. He entered Macalester College in St. Paul and was graduated in 1924 with a bachelor of arts degree in chemistry. After teaching high school physics and physical education for one year at Wheaton, he entered the University of Minnesota where he received his doctor of medicine degree in 1930.

After World War II he returned to the state health department in 1946 to resume duties which began in 1934 and carried him through assignments as director of Indian health, director of rural health services, chief of departmental administration, and director of local health services. In 1949, Dr. Barr was named the first deputy executive officer and, on November 1, 1955, following the death of Dr. Albert J. Chesley, he was appointed secretary and executive officer by the State Board of Health.

As tools in his continual fight to upgrade Minnesota's public health programs, Dr. Barr employed his gift for forceful communication, backed by near encyclopedic knowledge, common sense, and logic. Friends and associates recall that some chuckles were often mixed into Dr. Barr's discussions of public health. Although friendly and outgoing, he never hesitated to speak bluntly when the state's health was concerned. He will be missed by all who knew him as he served the State of Minnesota forcefully and effectively.

ALUMNI DEATHS

Walter F. Hoffman—1904
Died September 15, 1970, age 89, of cerebral arteriosclerosis.

Leon A. Barney—1909
Died December 13, 1970, age 86. Dr. Barney practiced in Duluth, Minn. for 46 years until his retirement in 1956.

Edward W. Ostergren—1909
Died November 25, 1970. Dr. Ostergren was voted "outstanding General Practitioner of Ramsey County" in 1948.

William F. Cantwell—1921
Died August 21, 1970, age 81, of cerebrovascular accident. He served as the city and county health officer in the International Falls area.

Eric M. Matsner—1921
Died August 19, 1970, age 73, of cardiac failure and arteriosclerotic heart disease.

Victor S. Quale—1924
Died November 29, 1970.

Madeleine Ann Fallon—1927
Died September 11, 1970, age 74, of a heart attack.

Meredith B. Hesdorffer—1928
Died January 5, 1971. He was director of medical education at Martinsville, Va. Memorial Hospital at the time of his death.

William Henry Haines—1931
Died September 15, 1970, age 72, of myocardial failure. Dr. Haines had been the director of the Behavior Clinic of the Cook County Criminal Court since 1941.

Charles G. Hayden—1940
Died October 7, 1970, age 59, of renal failure. Dr. Hayden was the president of the Massachusetts Blue Shield.

Allen E. Moe—1943
Died May 12, 1970

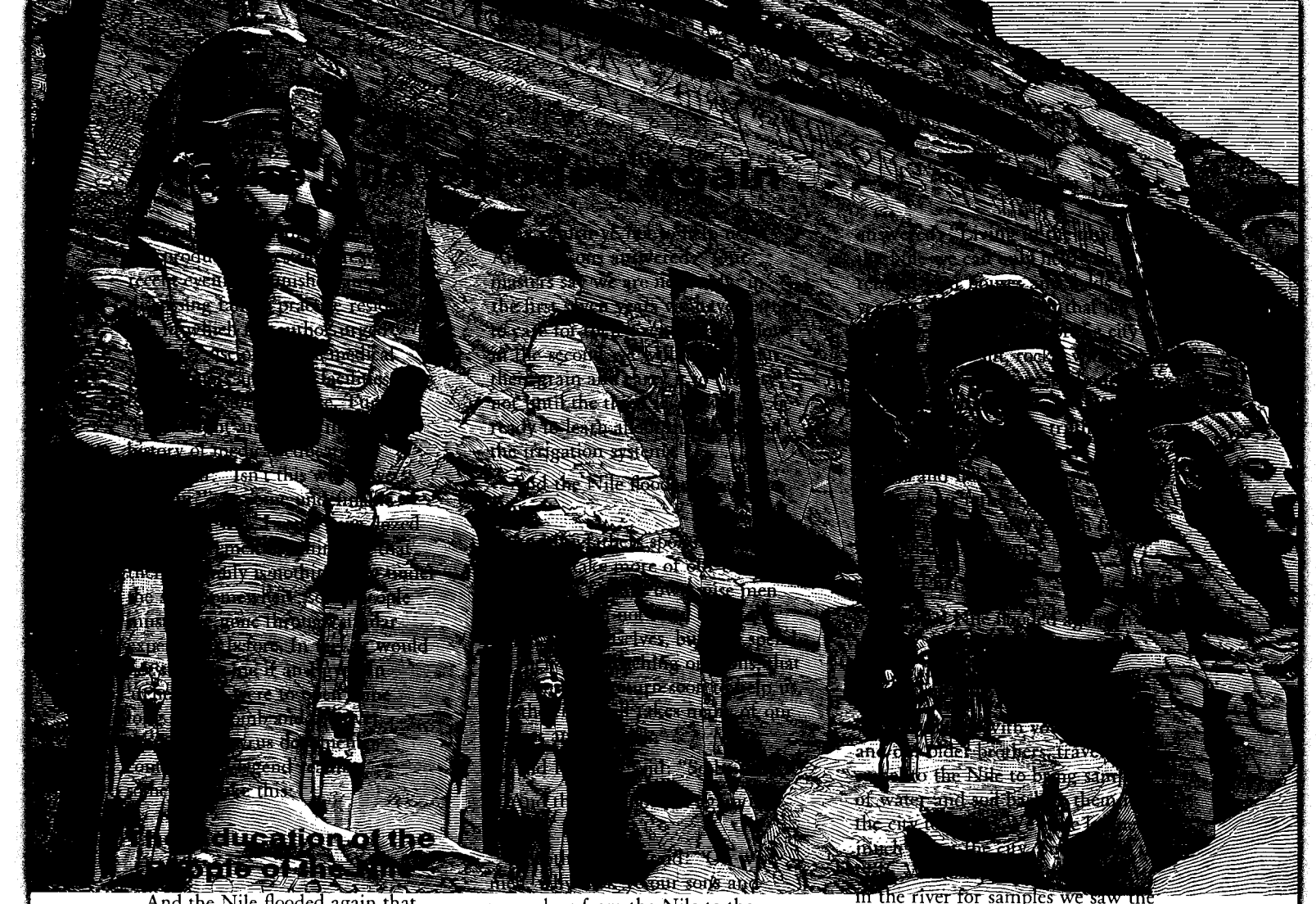
Charles C. Hewitt—1946
Died July 22, 1970, age 69, of myocardial infarction and arteriosclerotic heart disease.

Memorials

Gifts have been received recently by the Minnesota Medical Foundation in memory of the following:

Laurian A. Boswinkel
Charles P. Bucek
Frank D. Crimmins
Edwin Dygert
Mrs. Janet Figge
Elizabeth Gaile
Ken Glaser
Beatrice Hartkop
Robert Hendrickson
Mrs. R. S. Herbst
Reginald L. Hill
Mary Louise Kelly
William C. Kelly
Arthur C. Kerkhof, Jr.
Mrs. Joseph Klemp
Mrs. Francis Knoblauch
Elvina Kohnen
Mr. and Mrs. Edward Koubik
Mrs. Lavonne Martinson
Mrs. Norm McAndrews
Frank Orth
Dr. Edward Ostergren
Mr. M. M. Perry
O. J. Pfeifer
Mrs. Borgny K. Prydz
Mrs. Evelyn Schumacher
Jeremiah Sechler
Emily Sedgwick
William H. Smock
Edgar Suor
Vernon Sutton
Charles Ulmer
H. K. Wishart
Hazel Yager

Memorial gifts are a thoughtful means of honoring the memory of a relative, friend, or colleague. Gifts may be designated for specific purposes. The Minnesota Medical Foundation acknowledges all gifts to both donor and next of kin.



And the Nile flooded again that year.

And the people of the Nile said: "Each year the deluge destroys many of our buildings and crops. Yet the gods seem to favor a few, whose houses survive and whose crops profit from the fertile silt brought by the waters. Though we sorely need their help here, let us send our sons to those few who know how to save their houses and fields, so that our sons may learn and teach us all. Give some of our tribute, oh Pharaoh, to these men that they may teach our sons."

And Pharaoh said: "So be it."

And the Nile flooded again that year.

And the fathers asked their sons: "Ye have been seven years with your masters; their fields and houses grow larger while ours diminish. yourselves from the Nile to the City?" And the wise men answered: "To teach your sons how to save your homes and your fields, we must first study the silt of the water, the rocks of the river, the winds of the valley and the sands of the desert. These can not be studied in the mud of the Nile, but only in the clean buildings of the city where there are many scrolls and scribes to write on them. Oh Pharaoh, give more of the Nile fathers' tribute to us, that we may learn sooner what to teach their sons."

And Pharaoh said: "So be it."

And the Nile flooded again that year.

And the fathers asked their sons: "Ye have been seven times seven years in the city with the wise men learning how to help us. Why do ye not return?" And the sons in the river for samples we saw the waters destroy our fathers' houses and fields. And yet we saw that the gods seem to favor a few, whose houses do not yield to the force of the river and whose fields profit from the fertile silt brought by the waters. Keep your wise men and our older brothers here in the city to study the silt, rocks, winds and sands, but give still more of our fathers' tribute to those few men on the Nile, who know how to save their houses and fields, so that our fathers may send us to them. We can then learn from them and return to help our fathers."

And Pharaoh sighed deeply and said: "So be it."

And the Nile flooded . . . . . .

Arthur C. Aufderheide, M.D.

FEATURES

What is your M.M.I.Q.?
Watch your mailbox for this multiphasic, computer tested, set of 10 questions.