

# Barnes Bulletin

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An overflow crowd attended the dedication ceremonies in the East Pavilion auditorium prior to touring three floors of the West Pavilion.

## West Pavilion dedicated December 12

Ceremonies dedicating the Barnes Hospital West Pavilion to "sick and injured people anywhere who need the specialized care Barnes can provide" were held Wednesday, December 12, 1979, the 65th anniversary of the first surgical operation performed at the hospital. An overflow crowd filled the East Pavilion auditorium for the event, then toured the new facilities.

The public was invited to tour the West Pavilion anytime between 2:30 and 4:30 p.m. that day. Highlights included the cardiothoracic suite, operating rooms, recovery areas, intensive care units and patient rooms. Two nursing divisions were also open to visitors including renal and surgical patient care areas.

The \$55 million West Pavilion will provide the most modern facilities for a hospital and will include the latest technological advances, many of which are available at only a few medical centers across the nation.

The 250-bed addition, which provides a centralization of services and highly trained personnel, adds no new patient beds to the 1,208 for which Barnes is licensed, but replaces outmoded patient care areas in Wohl and Renard hospitals.

The new cardiothoracic unit occupies the entire second floor of the West Pavilion and has already become a model for other hospitals planning future construction. This new concept insures that heart surgery patients are cared for by the same highly trained team of doctors and nurses from the time they enter the hospital until they

**Front cover:** Dr. William Fair, acting surgeon-in-chief, was interviewed in a third floor operating room by Don Dare of KSDK-TV. The dedication was covered by several radio stations, four television stations, and daily and weekly newspapers. A feature is also scheduled for the February issue of Commerce magazine.

are released. It includes pre-op and post-op patient rooms, three open-heart surgery operating rooms and 12 intensive care rooms.

New operating rooms on the third floor replace older ORs and include rooms specially designed for surgical specialties including plastic, general, orthopedic, urologic, pediatric and transplant. Many of the procedures that will be done in these rooms were not even dreamed of when the old operating rooms were built, including microvascular surgery to reimplant fingers, toes and limbs and kidney transplants.

The West Pavilion also includes an outpatient surgery suite of five operating rooms, check-in area and recovery area adjacent to the inpatient operating rooms to allow many types of surgery to be done on a same-day outpatient basis, saving the patient both time and money. Such procedures may include dental restoration or extraction, laparoscopy, cystoscopies and some cosmetic surgery.

Barnes has become a leader in the treatment of kidney disease and, in addition to the hospital's chronic dialysis service, the new building will provide a 6-bed acute dialysis unit adjacent to a 21-bed unit for kidney transplant patients and a 3-bed renal intensive care unit. This centralization of services provides the patient with total care by a dedicated team of renal specialists at all stages of the disease.

Other areas to be included upon completion of the West Pavilion in 1980 include an expanded admitting area to allow fast, efficient handling of the 100 to 150 patients admitted to Barnes each day, a new 6-bed burn unit, a 10-bed respiratory intensive care area, x-ray facilities, 50 patient-care offices for doctors on Barnes staff, a 104-bed psychiatric unit and enlarged activity therapy department including a two-story gymnasium and rooftop recreation area.

Construction of the West Pavilion completes a master building plan begun by Edgar M. Queeny,

chairman of the Barnes board of directors from 1961 to his death in 1968, to update existing facilities and construct new ones to enable Barnes to remain at its original location in the city and to provide the best medical care available. The plan included construction of Queeny Tower in 1965, completion of the East Pavilion in 1972 and renovation of Rand-Johnson areas in 1974.

McCarthy Brothers Construction Company and Kenneth E. Wischmeyer & Partners, respectively, are the general contractor and architect for the West Pavilion. Prime subcontractors include Sachs Electric Company, Murphy Company, Honeywell, Inc., Houghton Elevators, and Professional Interiors, Ltd. Consulting engineers are Becker, Becker & Pannell, Inc., Crawford & Witte, Inc., Van & Viers and L. E. Heideman.

## Capsule tour of the West Pavilion

### Terrace (opening in early 1980)

Connected by two tunnels to the 1200-car sub-surface parking garage, the terrace level houses chronic dialysis, the Nearly New shop and a 110-seat amphitheatre.

### Ground (opening in early 1980)

The main entrance, it includes an expanded yet consolidated pharmacy, enlarged cardiac diagnostic laboratory, a waiting room for relatives of surgery patients and a discharge waiting room.

### 1 (opening in spring, 1980)

Most of the first floor consists of the admitting area and adjacent rooms where routine admission tests and x-ray procedures are done.

### 2 (open at dedication)

The cardiothoracic unit is a specially designed floor for heart surgery patients. It consists of three operating rooms designed for open-heart surgery, two operating rooms for other heart surgery, two anesthesia induction rooms, three recovery rooms, and patient rooms containing 18 pre-op beds, 22 post-op beds and 12 intensive care beds, all with highly sophisticated monitoring equipment.

(continued on p. 2)



OR nurses helped tour guests through the third floor operating rooms after the dedication.

## Capsule tour

(continued from p. 1)

### 3 (open at dedication)

Operating rooms for general surgery, plastic surgery, orthopedic surgery, pediatric surgery, oral surgery, urologic surgery and kidney transplant surgery are each designed and equipped specifically for the procedure to be done in them. In an adjoining area is an outpatient surgery suite of five operating rooms where minor surgery may be performed without hospitalization. In addition there are anesthesia and anesthesiology offices and a 30-bed recovery room.

### 4 (opening in 1980)

A new six-bed burn unit, complete with two metabolic rooms for burn treatment, is on the fourth floor. Also on this floor are surgical pathology, central service processing for the ORs and house staff call rooms.

### 5 (open at dedication)

The fifth floor houses the 21-bed kidney transplant nursing division, a three-bed renal intensive care unit, an 11-bed surgical intensive care unit and a six-bed acute dialysis unit.

### 6, 7, 8 (opening in early 1980)

Private and semi-private rooms for surgical patients comprise the sixth floor. The orthopedic nursing division on seven includes a four-bed observation unit, and the eighth floor houses an extremely sophisticated 10-bed respiratory intensive care unit.

### 9, 10 (opening in early fall, 1980)

Owned by Mallinckrodt Institute of Radiology, the ninth floor houses the cardiovascular radiology and nuclear medicine departments, and the tenth floor serves as an outpatient x-ray service.

### 11, 12, 13

The eleventh floor is shell space for future use. The two-story twelfth floor houses mechanical equipment (as does the roof top and basement) that makes Barnes one of the most energy-efficient hospitals in the country.

### 14, 15 (opening in early 1980)

These floors house modern, carpeted, attractive psychiatric nursing divisions, including 104 beds, an activity therapy department and a two-story gymnasium for psychiatric patients.

### 16, 17 (opening in mid-1980)

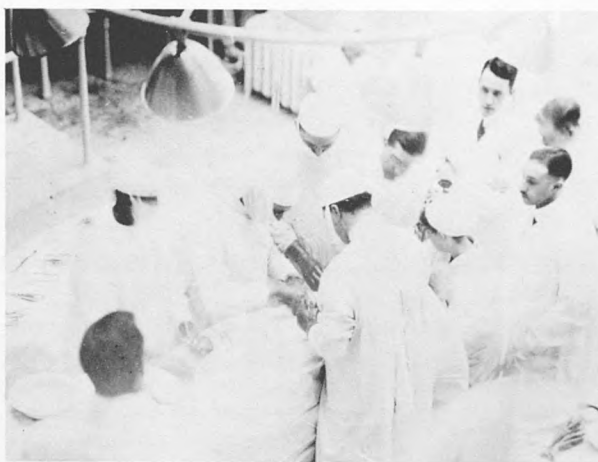
Barnes doctors offices connect by a skywalk from the sixteenth floor of the West Pavilion to the dining area on the seventeenth floor of Queeny Tower.

## Auxiliary donated \$1½ million toward WP

The Barnes Hospital Auxiliary has raised more than \$1½ million toward construction of the West Pavilion including an \$850,000 contribution completed in 1977 for the new cardiothoracic intensive care unit and \$605,000 toward a six-year, \$1 million pledge for a patient care floor in the new addition. The latest pledge is scheduled to be completed in 1983.

The Auxiliary, which has contributed more than \$2 million to Barnes since its inception in 1959 (including \$500,000 in 1972 for construction of the Coronary Care Unit), is unique in that all money raised is done in-hospital through the Tribute Fund, Wishing Well gift shop, Nearly New shop and Baby Photo service.

The group also sponsors more than 500 volunteers who, in 1978, donated over 62,000 hours.



The first operation at Barnes, December 12, 1914. Dr. Fred Murphy was assisted by Drs. Sachs, Fisher and Brooks. Emma Bornefeld had an appendectomy and was discharged two weeks later. She lived to be almost 80.



Emma Bornefeld at about the time of her operation.



Clare Ehelebe and Harry Bornefeld, daughter and son of Barnes first surgery patient, at the West Pavilion dedication ceremonies.

## Relatives of Barnes first OR patient guests at dedication

Harry Bornefeld and Clare Ehelebe, were special guests at the dedication of the West Pavilion December 12. Their mother, Emma (Mrs. Harry) Bornefeld was the first person ever to be operated on at Barnes Hospital. She underwent an appendectomy on December 12, 1914, when she was 24 years old.

Her anesthesia chart quotes Dr. Fred T. Murphy, Barnes surgeon-in-chief at the time, "This operation is the first that will be done in the new Barnes Hospital. We are working under conditions vastly superior to those of the old hospital, but we shall feel gratified if the results here are as good as those we obtained in the old place."

Dr. Murphy and his assistants did obtain good results and Mrs. Bornefeld went on to live another half century. And at the dedication of the new operating rooms in the West Pavilion on this December 12, his sentiments were echoed by the speakers, who praised the new facilities that will help facilitate Barnes' heritage of superior patient care.

## Mechanical, electrical systems are complex

Heat, air, light and water. More than 70 miles of pipe, conduits and ducts in the walls, above ceilings and beneath the floors carry these vitally important substances to the patient floors, operating rooms, intensive care units, doctors' offices and x-ray facilities of the West Pavilion project. Sixty percent of the \$55 million being spent on the project, which includes the 17-story West Pavilion, four floors atop the East Pavilion and renovation in the adjacent Rand Johnson building, is for installation of mechanical and electrical systems.

Most hospital patients and visitors, and even employees and doctors, don't think too much about mechanical and electrical systems and how they work. They just expect lights to be on, equipment to be operable, water to be hot and the temperature to be comfortable.

In the West Pavilion, the heart of the building, which most people never see, is the two-story twelfth floor which houses air conditioning units, pumps, chillers, generators, exhaust fans and heat exchangers for hot water. Designed to accommodate the 450,000 square feet of new space in the West Pavilion, all units operate on a big scale. The air conditioning units, which have the capacity of 4,400 tons of power, are capable of cooling 1,276 homes. Generators, which are used during a power outage, provide enough emergency power to carry the full-scale operations with only minor hindrances.

The basement, counterpart to the twelfth floor, houses boilers, air compressors, a vacuum system and water softeners, which provide steam for hot water and steam for sterilizers. Like the twelfth floor, the sensation here of large-scale equipment is apparent. Two 600-horsepower boilers produce 44,000,000 BTU—enough to heat 440 homes.

Both the heating and cooling systems plus other mechanical devices are monitored by the sophisticated Alpha 1,000 computer system. Based on utility rates and consumption, the computer indicates the most cost efficient cooling system to use, either gas or electric since the building has both. It also senses whether outside air or return air is the easiest to cool and feeds it into the air-conditioning system. During the winter months, the computer indicates how many boilers to run and shows if each boiler on the line is operating at its maximum efficiency. Information for the computer is obtained from sensors attached to the heating and air conditioning units, and solar sensors on the roof determine the amount of heat generated by the sun's rays on the building and adjust the heat and air-conditioning accordingly.

The Alpha 1,000 does a variety of other things, including starting and stopping equipment, monitoring chillers, resetting temperatures, monitoring perimeters, indicating equipment that is not working properly and sounding alarms.

The increasing growth of government and the loss of personal freedom in society today are the key subjects of the ten part television series, "Free To Choose", to begin Friday, January 11. Hosted by Nobel Laureate Dr. Milton Friedman, the series will be broadcast nationally, and will be carried in the St. Louis area by KETC-TV (Channel 9) on Friday evenings at 8:00 p.m. Each program consists of one-half hour of Dr. Friedman's entertaining commentary on subjects ranging from welfare to inflation, and one-half hour of discussion between Dr. Friedman and various guests, including persons with strongly opposing views.



Housekeeping employees Carl Little and Edward Brown are representative of the many who worked overtime to ensure all was ready for the dedication.

## Housekeeping WP role— a team effort

Wash the walls; scrub the floors; wash windows; polish the stainless steel doorways and cabinets; vacuum carpets; assemble beds; move furniture into offices and patient rooms; carry trash away from the area; clean operating room floors, walls, ceilings and fixtures; buff tile floors; remove old tape residue from 25 glass walls and doors; hang cubicle and shower curtains; hang bath towels and washcloths; make-up beds and OR tables.

It may sound like dialogue between Cinderella and her wicked stepsisters. Instead it is only a partial list of West Pavilion housekeeping clean-up duties. "Our employees worked hard in preparation for the West Pavilion dedication and did not complain about the long hours and hard work," said assistant executive housekeeper Marge Dorn.

"It was a real team effort to get three floors ready for the December 12 ceremonies in such short time. Everyone worked hard. Those assigned to the new building worked long hours and those assigned to other hospital areas doubled-up duties to cover the resulting 'unmanned' areas."

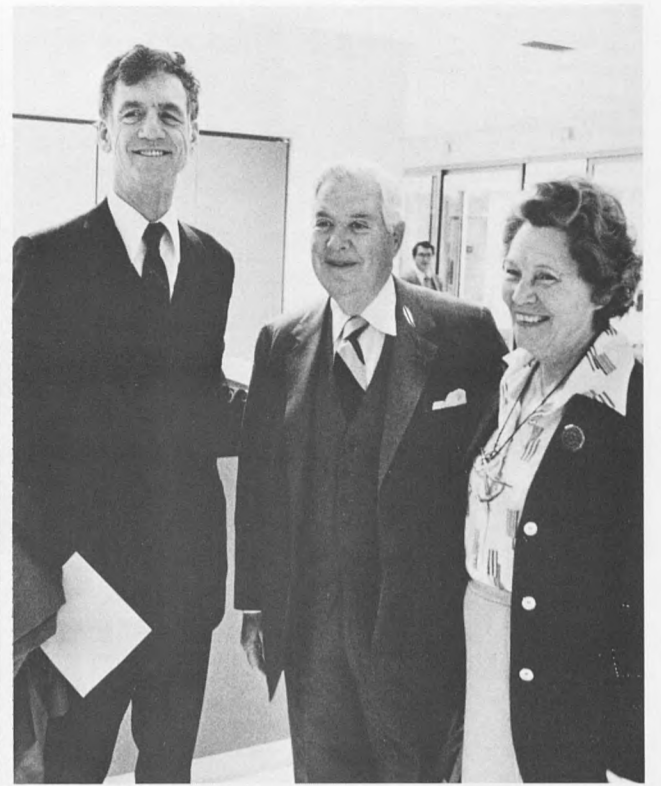
Starting December 1 housekeepers logged a total of 558 overtime hours, many of which were accrued the two days before the dedication. The finishing touches on 2300 and 3300 were complete the weekend before the Wednesday opening, but 5300 was still under last-minute construction until 4 p.m. on December 11, just 18 hours before the ceremonies.

During that 18-hour span, interested housekeeping personnel were asked to volunteer for overtime in one last, all-out effort to meet the 10 a.m. deadline. Housekeepers and supervisors alike were shoulder-to-shoulder, or ladder-to-ladder, scrubbing and dusting. Some worked four to six hours after their shifts' end, others reported to work early that morning, one supervisor worked on her day off, and the head of the department was at the hospital all night.

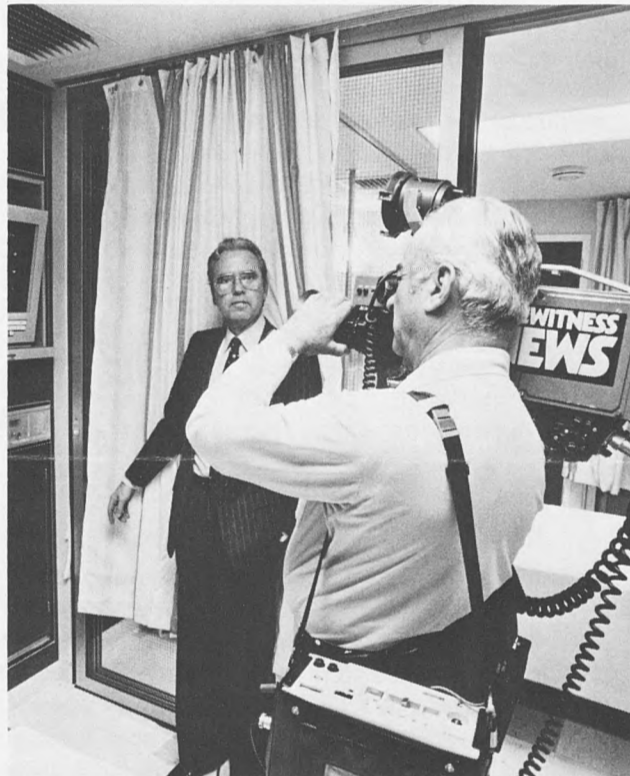
Did housekeepers breathe a sigh of relief after the last bit of dust had been removed? "If we did, it was a quick sigh as we vacated the new building and headed for the regular duties which awaited us—glad that it was over, proud of our accomplishment," said Mrs. Dorn.



Dr. Richard Clark, cardiothoracic surgeon and engineer who helped develop the monitoring system demonstrates it for guests.



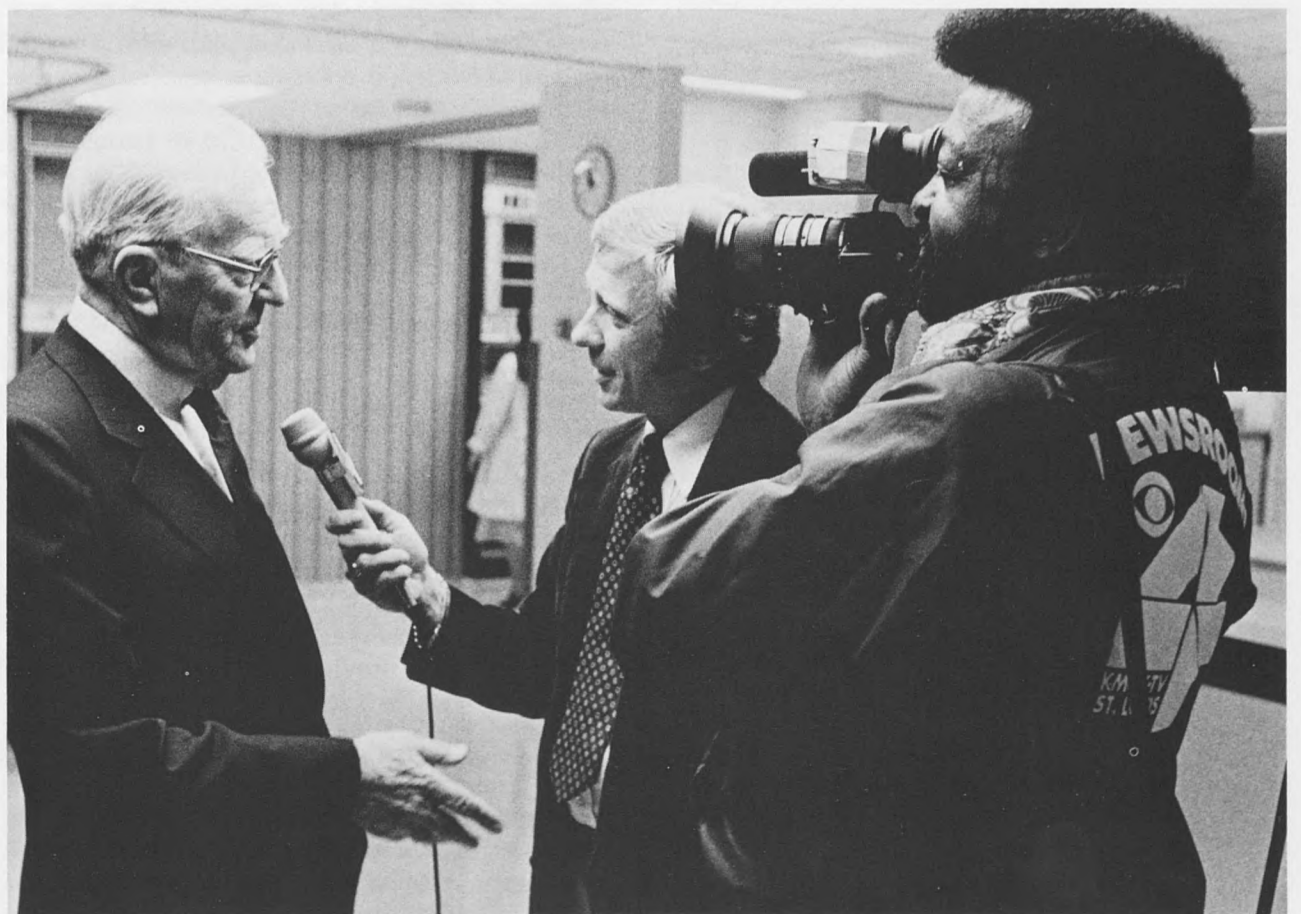
Dr. William Danforth with Mr. and Mrs. Raymond Rowland. He is former chairman of Barnes board.



Dr. Clarence Weldon, cardiothoracic surgeon-in-chief, explains ICU for KSDK-TV news.



Guests examine anti-static floor in open-heart surgery operating room.



Board chairman Harold Thayer was interviewed by Al Wiman of KMOX-TV in the ICU.



# WEST PAVILION DEDICATION

The formal program for the dedication of the West Pavilion began at 10 a.m. on Wednesday, December 12, in the East Pavilion auditorium. The invocation was offered by the Reverend David Wyatt, protestant chaplain of Barnes.

Greetings by Robert E. Frank, president of Barnes; Samuel B. Guze, vice-chancellor for Medical Affairs of Washington University; and Bernard T. Garfinkel, president of Barnes Hospital Society, followed. Harold E. Thayer, chairman of Barnes Board of Directors dedicated the building to the sick and injured. Joseph Balcer delivered the response in the stead of St. Louis Mayor James Conway, who was in Washington, D.C.

The text of the speeches follow.

## Robert E. Frank president of Barnes

Good morning, and greetings on this occasion of Barnes Hospital's dedication of its West Pavilion. We are happy you could be present with us this morning to share in the opening of this newest facility in the Barnes complex.

This day was chosen for dedication for two reasons. The first was that this would be one of the few opportunities to show you what are some of the most outstanding operating facilities in the world. The second is, today marks the 65th anniversary of the first surgery done at Barnes Hospital. That surgery was an appendectomy on a 24-year-old lady who went on to enjoy 55 more years of life following. I think that says that even 65 years ago, outstanding appendices were being done at Barnes Hospital. Today we are fortunate in having the son of that lady with us, whom I would like to introduce, Harry Bornefeld.

Barnes Hospital has been fortunate to have as its last three chairmen, giants in the field of business: Edgar Queeny, who led Monsanto Chemical Company to its present world prominence; Ray Rowland, who was instrumental in making Ralston-Purina the giant it is today; and now Harold Thayer, who has made the same kind of contribution to Mallinckrodt, Inc.

But that wouldn't have meant anything if these busy men had acted only as figureheads at Barnes. Without exception all have been dedicated to the task of making Barnes Hospital, and St. Louis, foremost in healing the sick and injured.

All three worked equally as long and hard at their job as Barnes chairmen as they did as heads of their companies. I can truly say that I think the welfare of the patients at Barnes Hospital means as much to Mr. Thayer today as the success of Mallinckrodt, Inc. And this was equally true of Mr. Rowland's dedication and of Mr. Queeny's.

The financial support from Edgar Queeny and his wife, Ethel, unparalleled in Barnes' history, was exceeded only by the freely given gift of his genius. Shortly after he became chairman in 1961, Mr. Queeny commented that while Barnes had an unsurpassed staff, it had a somber, aging plant. He then set out to do something about it.

He conceived a step-by-step, pay-as-you-go construction plan for Barnes Hospital that would over the years completely replace or modernize the buildings. The first step in this master plan was the construction of four additional floors on the Rand-Johnson building, followed by Queeny Tower in 1965, a building that introduced a new approach in patient care to the nation. For the first time, hospital rooms and public areas had handsome carpeting, soft lighting and comfortable furnishings. Mr. Queeny felt that patients had enough fears and apprehensions about their sickness upon entering a hospital that the additional harshness of the traditional institutional look should be changed to an atmosphere that was more homelike to help allay the patient's concerns.

The skyline in 1980 will be much like the one Mr. Queeny had envisioned a decade and a half ago. But the buildings will include innovations and capabilities not dreamed of in Mr. Queeny's day.

Edgar Queeny taught Barnes to practice cost containment when the term was just a gleam in the bureaucrat's eye. One thing that is not generally known and of which we are very proud is that while care and facilities here are often superior to other hospitals, charges to patients are often less, and at the same time, we are able to operate in the black—a statement fewer and fewer hospitals are able to make.

Mr. Queeny was equally concerned about the employes of the hospital, and immediately set about improving their lot by shortening the work week, improving rates of pay, instituting a pension plan, and other benefits. These are some of

the fruits of the seeds Mr. Queeny planted and Mr. Rowland and Mr. Thayer have cultivated.

Mr. Queeny died in 1968, and Mr. Rowland became chairman the following year. Under his leadership, the East Pavilion was completed, a multi-level garage was constructed at the corner of Kingshighway and Audubon, the subsurface parking garage was completed, the Peters building was conceived and built, all ward facilities were eliminated and replaced by private and semi-private rooms, major renovations were carried out in all areas of the hospital, and construction was begun on the West Pavilion.

Mr. Rowland continued the emphasis on Barnes Hospital being effectively and efficiently managed. Like Mr. Queeny, he had a deep concern for the increasing cost of health care in the United States and as a result of that concern, Barnes has constantly held its cost increases under the national average, and below the targets proposed by the federal administration.

This chain of outstanding leadership was uninterrupted when Mr. Rowland stepped down earlier this year and Mr. Thayer succeeded to the chairmanship. Mr. Thayer has been on the Barnes board since 1973 and vice-chairman since 1976, so he has had a front row seat at the construction of the West Pavilion. His concern with the care of our patients is evident in the repeated query, "How will this or that benefit Barnes patients and what can we do to serve them better?" I am confident he will use his talents to see that the labors of Mr. Queeny and Mr. Rowland will bear even more fruit than they envisioned.

I would be remiss not to mention that the Barnes Hospital Auxiliary—some of their dedicated officers are sitting in the back of the auditorium—is raising almost \$1½ million toward construction of the West Pavilion. The Auxiliary, which has contributed more than \$2 million to Barnes since its inception in 1959, is unique in that all money raised is done through in-hospital projects.

I also want to extend thanks to our design team and our building contractors who are doing an outstanding job, as well as the medical and personnel staffs of the hospital who have given so much to make this newest addition a truly outstanding health care facility. Last, I would like to express my thanks to a former member of the Barnes administrative staff who worked untiringly and gave so much to the success of this project, Mr. Tom Winston.

## Dr. Samuel B. Guze Washington University

Alpha Omega Alpha is the medical honor society, the Phi Beta Kappa of medical schools. Its motto is *Worthy to serve the suffering*. By recognizing outstanding performance in medical schools, election to the society indicates the individual is especially entitled to the privilege of taking care of the sick and injured. Thus, the society stands for humanities, great aspirations to use its intelligence to prevent illness and to care for the afflicted.

In the very same tradition, university medical centers like ours represent the happy marriage of mind and heart, intelligence and compassion harnessed in the service of the sick.

Those of us who work here, all of us, are truly privileged. This magnificent new building reminds us that society affords us special rights and special resources because we are embarked on what I consider to be a holy calling. It will be our great responsibility to use these new resources well. I am confident we shall do so.

## Dr. Bernard T. Garfinkel Barnes Hospital Society

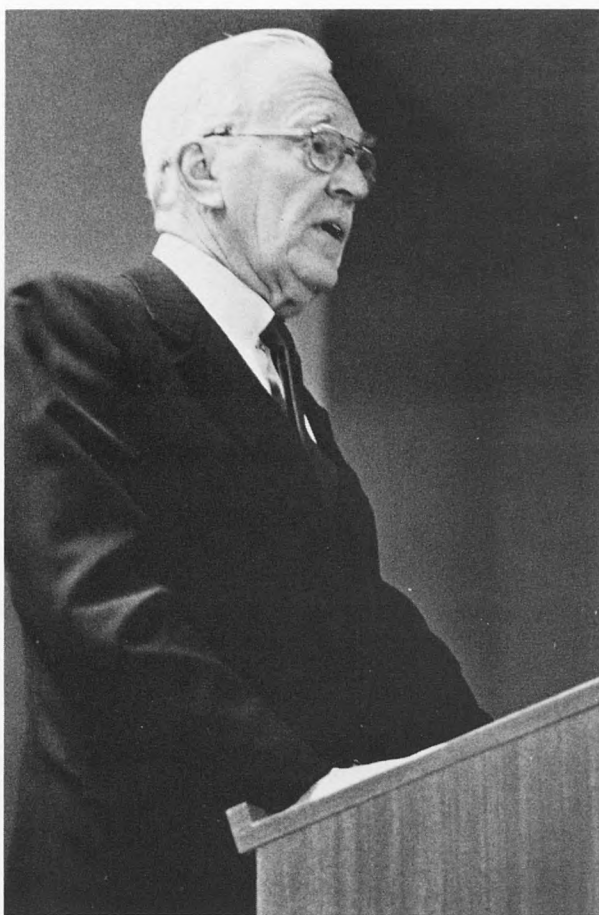
It's a great pleasure for me to welcome you to this dedication on the behalf of the medical staff of Barnes Hospital. I also want to take this opportunity on the behalf of the staff to thank the administration and the present and past boards of directors for making this magnificent addition to the hospital complex possible.

As Mr. Frank said, Barnes Hospital has enjoyed a reputation of excellence in the field of medical care over the years and this structure is another example of the additions to the complex which helps us make this possible.

However, no matter how magnificent the structures and how advanced the technology, excellence in medical care, of course, depends on the continuing advancement of our knowledge, of our teaching, of our research and, last and probably more important, on the day-to-day care of the patients. The dedication of this magnificent structure is the proper time for the staff to rededicate itself toward that goal.



Dr. Garfinkel



Mr. Thayer

## Harold E. Thayer Barnes chairman

Barnes Hospital has long been known and recognized for providing highly specialized health care. The technical and professional excellence of the medical center is matched by only a handful of teaching hospitals in the country. Though it is a tremendous asset to the community, Barnes has made few demands on the community. Its growth, progress, and achievements have been supported by private funds from such benefactors as Robert Barnes, the Edgar M. Queenys, the Peters, Lauman, Rand, Johnson and Olin Families, and a host of other donors.

Today, we are dedicating another significant addition to the medical complex which will increase its value to the community. The West Pavilion, which was paid for largely from the Queeny Fund, will provide a physical plant and equipment that will help our medical staff deliver a caliber of care that would be difficult or impossible to achieve in lesser facilities. Men and women and children with diseases or injuries that would have meant sure death only a few years ago will be restored to productive lives in this building.

You will have an opportunity to tour the cardiothoracic unit shortly. It is designed to allow the same highly trained group of doctors and nurses to care for heart surgery patients—children with congenital heart problems as well as adults who require open-heart surgery—from the time they enter the hospital until they are discharged.

Those suffering kidney failure will likewise be cared for by a complete team of renal specialists, including transplant surgeons, hemodialysis experts, nurses, social workers, dietitians and so forth.

Our burn unit will preserve both life and function for persons from a large geographical area who look to Barnes when this most horrible of tragedies occurs.

The same can be said for every service at Barnes. No medical center in the country can boast more expertise or better facilities and equipment, than ours. We are fortunate to be associated with the Washington University School of Medicine, which is known throughout the world for its splendid training of physicians and pioneering research.

As a byproduct of assuring this level of care, we have continued to be a force in the economy of St. Louis. The West Pavilion is a \$55 million project. What that means is that Barnes Hospital has pumped \$55 million into the St. Louis economy over a three-year period by this project alone. An average of 250 men per day have been employed in the construction trades building the West Pavilion. Scores more are employed by companies which supplied equipment and building materials for the project.

The hospital itself is the fifth largest employer in St. Louis, with a total payroll last year in excess of \$42 million. That means that our employes pay more than \$428,000 yearly in St. Louis City Earnings Tax.

We also generate a considerable infusion of new money into the St. Louis market because about half of our patients come from outside the St. Louis City/St. Louis County area for specialized care unavailable in their home communities. These patients are often seriously ill and frequently members of their family or friends accompany them to St. Louis, where they eat, shop, rent hotel accommodations, and so forth.

Our clinics and emergency room offer a welcomed service to the city and county also. In 1978, more than 104,000 patients visited our clinics and more than 45,000 came to our emergency room.

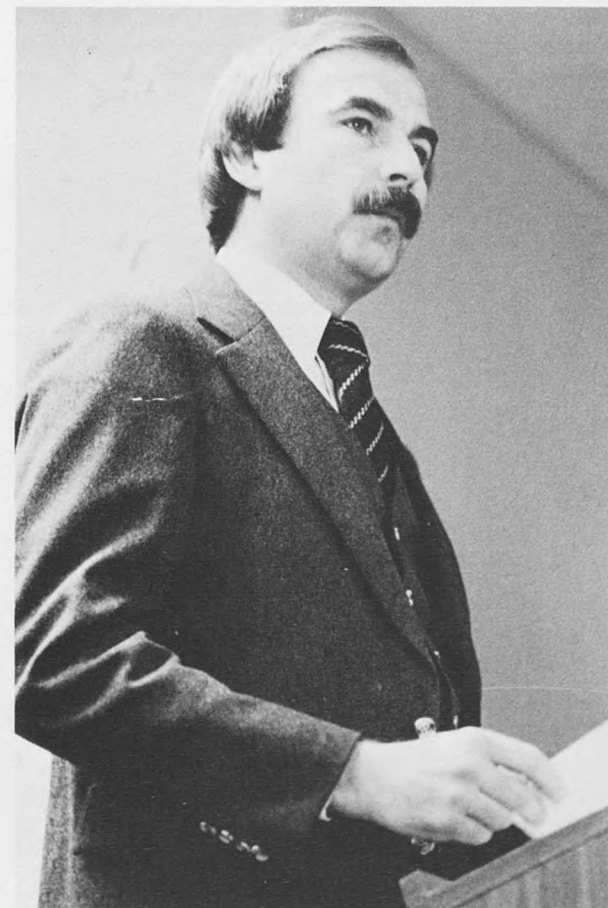
We made a commitment during Mr. Queeny's lifetime to make St. Louis the nation's medical center and we believe the opening of the West Pavilion today has helped us achieve that goal.

As Barnes chairman, I pledge to you that we will continue to do everything in our power to assure that the best medical care in the country can be had right here in St. Louis—today and in the future.

## Joseph Balcer, speaking for Mayor Conway

It is a personal honor for me to be here this morning representing Mayor Conway, who was called to Washington today to testify before a Senate Subcommittee on Energy and Cities. There's \$5 billion at stake in the bill, and the Senate wants to know how we in the Midwest view it.

(continued on p. 8)



Mr. Balcer



Ellen Miller, RRT, a supervisor in respiratory therapy, assists representatives from the manufacturer in testing gas systems in the West Pavilion.

## Gas system checked in West Pavilion

Oxygen, nitrous oxide, nitrogen, clinical suction, carbon dioxide and emergency oxygen . . . these substances are vitally important in a hospital. And, at Barnes Hospital, approximately ten miles of specially prepared copper piping have been installed in the new West Pavilion to carry them to the floors.

"There are literally miles and miles of piping for just this system in the West Pavilion," said Andy Nolfo, project manager of the Murphy Company, installers of the system. "And we go through numerous safety checks to guarantee that the system is operating properly and that the right gases are in the right lines."

"We test as we install," Mr. Nolfo said. "We've been testing for the last one and one-half years." He said that he had heard of cases where the lines were mixed up, resulting in damage and/or death to the patients and major lawsuits for the hospitals. "It happens when you don't have qualified people working in the field and when you don't take the time or spend the money to properly test the newly installed system."

The Murphy Company, using standards established by the National Fire Protection Association for the installation and testing of nonflammable gas piping systems for medical purposes in hospitals, performs numerous tests to ensure proper installation. After installation of the piping, but before the installation of the outlet valves, the line is blown clear one pipe at a time with nitrogen. After the station outlets are installed, each section of pipe is subjected to a pressure test. Pressure, one and one-half times the maximum working pressure but not less than 150 pounds per square inch, is maintained until each joint has been examined for leakage.

After testing each pipe, Murphy subjects all of the medical gas system to a 24-hour standing pressure test. The piping is filled with test gas, the supply valve is turned off, all outlets are closed and the source of gas is disconnected to determine if it can remain leak-free for 24 hours. "If we didn't test the pipes as we do, the cost to repair a leak at a later date would be enormous," Mr. Nolfo said. To determine that no cross connection to other piping systems exists, cross connection testing is then done.

When Murphy is finished installing and testing the gas system, the manufacturer of the system, Ohio Medical Products Company, accompanied by people from the Barnes respiratory therapy department, re-tests line pressure and cross connections. "In addition, we have analyzers that measure the percentage of oxygen which must be 100 percent, nitrous oxide which must be zero percent and compressed air which must be 21 percent," said Bob Karsch, technical director of respiratory therapy.

## West Pavilion is a buyer's dilemma

Buying draperies and carpeting for a new home is a difficult enough task, but purchasing for the 17-story West Pavilion construction project can be a real buyer's dilemma. So far, there have been 398 purchases from many vendors. They range in variety from a single-item purchase order such as a menu board for the food service line in the doctors lounge to a 25-page order for office furniture.

Although the Barnes purchasing department saw plans for the West Pavilion only three years ago, it actually was six years ago when they first became involved with the project by ordering operating room hand instruments. "It was the first thing that we worked on," said Don Telthorst, director of purchasing. "We had to define the hand instrument requirements for the West Pavilion ORs, run an inventory and determine the type and quantity of instruments for each tray." The task was not a small one—it filled a two-inch, three-ring binder.

"Determining what went in patient rooms was relatively simple since there was a standard to follow," Mr. Telthorst said. "But, determining the bed order quantity was the single most difficult task on this project." Along with the architect, consultants, Tom Winston, nursing and admitting, the purchasing department had to determine not only how many rooms were private or semi-private (thus, requiring one or two beds), but also how many old beds were compatible to the new environment and could be used there. In addition to the beds, the rooms contain two bed tables, a dresser, two arm chairs, two ottomans, two straight chairs, a floor lamp, table lamps, one or two overbed tables, two pictures, a mirror, draperies and waste cans. (The furniture had to

be ordered one year in advance of delivery; beds were ordered 16 months before delivery.) Laundry, housekeeping and nursing saw a sample room.

One of the largest undertakings on the West Pavilion was getting the office furniture requirements worked out with the designer and the user. Sandy Duchon, project budget analyst, met with each department to determine type of furniture, color and fabric and location of each piece in the office. She also was involved in working up secondary items such as refrigerators and scales.

"Working on the West Pavilion is so much different than working on the East Pavilion," Mr. Telthorst said. "In the East Pavilion many floors were alike, but the West Pavilion floors are so different. It takes more time and more planning."

Although, in theory, deliveries were scheduled after the construction deadlines, construction ran behind schedule and some items were delivered before there was room for them. "There is no place to put anything on a project like this except in the space created," Mr. Telthorst said. Some things, like a significant quantity of stainless steel furniture (instrument tables, kickbuckets and stools), were stored in the Euclid-Laclede building. Some things had to go into professional storage.

The West Pavilion, a \$55 million project, required both large and small purchases. Eighty-five hundred yards of drapery material, 24,407 yards of carpeting, 52,340 yards of vinyl wall covering, 14 operating room tables, 1,000 yards of upholstery material for the patient rooms, a \$380,000 monitoring system for the second floor—these items were purchased in quantity for the project. One at a time items included a hall tree, a stapling machine, a spectrophotometer and a respiratory monitoring system.

Some things, like poles for holding IV's in the intensive care units and arm boards for the operating room tables, were custom-designed for the West Pavilion.

In order to guarantee good quality and to determine what product was best suited to the needs of Barnes Hospital, members of the purchasing department tested many items before placing orders. "We looked at them very carefully before we ordered," Mr. Telthorst said. "In some cases, like with stretchers, for instance, we tried them out ourselves before buying any." Operating room tables were also tested in the ORs before they were ordered.

Mr. Telthorst pointed out that ordering for the West Pavilion was done and is being done in three stages, getting together a budget estimate, defining and specifying the order and scheduling delivery, and ordering additional items after occupancy. "We're essentially complete for the first phase on floors three through eight," he said. "We have the major items to do on terrace, ground and one, the secondary items to do on 14 and 15."

## WP to feature outpatient surgery

Many types of surgery can now be done on a same-day outpatient basis to save the patient both time and money and to free the inpatient operating rooms for more complicated procedures. The West Pavilion will house an outpatient surgery suite consisting of a check-in area, five operating rooms and a recovery area on the third floor. The suite is adjacent to, but separate from, the inpatient ORs.

## West Pavilion signs are more than meets the eye

Along with 450,000 square feet of new space in the West Pavilion comes a need for signs . . . signs that say "head nurse, women, treatment room, linen, No. 3, family waiting, storage, surgeons lounge, nurses classroom" and so on. Barnes Hospital engraver Marvin Bush has been working on them between other jobs for the past five months and has already made more than 500 basic signs for the West Pavilion.

Inspiration for the signs comes from blueprints of the West Pavilion floors as well as from a list of approximately 66 nursing, dietary and social service office designations prepared by Tom Winston, Evelyn Bonander, Cynthia Foster, Maureen Byrnes, Donna Granda, Marlene Hartmann and Sandy Duchon.

"The West Pavilion is a very big job," Mr. Bush said. "I have completed, though, most of the signs that go up in the next month or so." He is assisted part-time by Charlotte Wagner.

"Almost every sign I make must first be laid out," he said. Most of them are white letters on red or brown woodgrain gravoflex plastic, with the size depending on the number of letters in each word and the number of words per sign. "I try to keep the basic signs a standard size depending on how many letters and words there are to each one.

"In this job, there's very little room for mistakes," Mr. Bush said. If the needle of the engraving machine goes off of the track while he is lettering a sign, the plastic is ruined. And, as with everything else, the cost of the plastic keeps getting higher and higher. "There's oil in plastic, making it expensive," he said. "The cost of the plastic rises five to ten percent annually."

Marvin Bush has been making signs for Barnes Hospital for the last five years. He said that although most hospitals order signs from elsewhere, Barnes, being so large, finds it more cost efficient to have an engraver. Mr. Bush foresees the West Pavilion as a continuing job. "Once they're in there, they'll always be adding more signs," he said.

## Barnes continues as kidney disease center

Continuing its tradition of being a leader in the treatment of kidney disease, Barnes Hospital will devote one floor of the West Pavilion to its treatment.

In addition to the chronic dialysis unit on the tunnel level, the new building will provide a 6-bed acute dialysis unit on the fifth floor adjacent to a 21-bed unit for kidney transplant patients and a 3-bed renal intensive care unit. This centralization will afford total care by a dedicated team of renal specialists, including transplant surgeons, nurses, social workers and dietitians, at all stages of the disease.

Barnes has been the forerunner of continuous ambulatory peritoneal dialysis, a new form of dialysis that frees kidney failure victims from the necessity of being tied to a conventional dialysis machine three days a week. In addition, Barnes is a major kidney transplant center in the United States. During 1978, 65 persons, including a young woman from Tokyo, received kidneys from relatives or from persons who had arranged to donate organs at the time of death.

## The evolution of Barnes Hospital



Barnes Hospital as Queeny Tower (left) was nearing completion in 1965.



The East Pavilion changed the Barnes skyline in 1972.



Today, the West Pavilion has been joined to the East Pavilion.

## Speeches

(continued from p. 5)

\$5 billion dollars is a lot of money, but so is the one-half million dollars in earnings taxes generated annually by Barnes Hospital. In fact, I guess for a half million, you are entitled to more than a Mayor's assistant addressing you today.

I do want to convey, however, Mayor Conway's sincere and thorough admiration for the accomplishments enumerated by Mr. Thayer.

The \$55 million in construction that has occurred here has not only produced a significant and continuing number of jobs, but it has also made a handsome mark on the city skyline that will continue into the next century.

The continuing flow of patients and their families has also contributed to the entire community . . . making St. Louis the medical capital of the Midwest and beyond.

The Mayor, and I am sure, the community in general, are proud of the excellence in medical care for which Barnes is famed.

Your cardiac unit, your renal disease team, the burn unit and other specialties are magnificent resources. You and your associates have reason to be proud of the reputation for excellence that the name Barnes Hospital carries to all corners of the medical world.

All of you here today obviously have a keen and abiding interest in seeing that the health care needs of this city and region are served in a first-class manner.

## Barnes Bulletin

Barnes Hospital  
Barnes Hospital Plaza  
St. Louis, Mo. 63110

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Health care in St. Louis is very much a joint venture. It is indeed a partnership among our medical schools, our private hospitals and public facilities. It is a partnership of which we are most proud.

I dwell on this only to emphasize that City Hall's interest in hospitals and health care delivery is thorough and comprehensive. Because of such concern, we are pleased to see this magnificent health care facility grow and prosper. Such accomplishments are not routine. Nor are they the result of coincidence . . . nor of casual management.

The contributions of time and resources of Edgar M. Queeny have already been mentioned. I can only add that Mr. and Mrs. Queeny have set a standard for community service. Barnes, I know, counts itself extremely fortunate in having their support.

Mr. Rowland's emphasis on efficient management is something that every organization admires . . . even more so when the organization is the city government. And the work by Mr. Thayer can be seen here in stone and concrete . . . and in the pride of accomplishment felt by every member of the administration and staff.

In conclusion, I again offer congratulations from Mayor Conway to the entire Barnes Hospital team.

You have not only honored yourselves and your profession, you have brought honor and recognition to our community, and to the people of our community who turn to you in times of great need: For your talents, your compassion and your generosity, you have the congratulations and thanks of all of us!

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