George Cross is a man whose sober countenance belies a penchant for humor. But the circumstances of his annual address to the combined civic clubs of Norman early this month were of obvious relish to him. He knew he would be the first to announce scholastic blueprints of momentous importance to the some 300 businessmen seated before him—and he knew he had better do it in no more than 30 minutes so that these same businesmen could catch the opening play of the World Series.

It was not the first time O.U.'s president has had to seek a balance between scholarship and athletics. But never in his fifteen years as president did George Gross have a report to Norman's businessmen which implied as much scholastic stature *and* financial gain for O.U. and Oklahoma as did his report of 1958.

To begin where the report ended (President Cross also has a penchant for drama), the Kellogg Foundation has announced that a grant of $1,845,000 has been given to O.U. for the construction on the main campus of one of the nation's major centers for adult education. The total construction and equippage cost of the center is expected to be $2,900,000.

President Cross told his hushed audience that the center would soon be attracting over 60,000 people yearly to programs of general education; professional or college level vocational education; programs in civic and social leadership, health, home, and family life; cultural, interpretative, and high school student programs; and programs in which the Center serves only as host.

The nearly-two-millior-dollar grant, President Cross pointed out, is the single most important grant ever made to an educational institution in the State—a fact which no doubt will be pointed out again early next year when President Cross appears before the State Legislature to determine means of matching the grant.

The announcement of the new adult study center followed two other important announcements: first, O.U. could expect the arrival of a swimming-pool type nucleonics reactor sometime next year (as soon as details concerning five different types of licenses are worked out with the Atomic Energy Commission); and second, as the heart of its Industrial Park dream, parts of O.U.'s high-speed computer will begin arriving next summer.

It is perhaps too much to say that any of President Cross's audience (except newsmen) missed the first game of the World Series because of these important announcements. But the deep impact of his grant-reactor-computer speech was undeniable—and a little bewildering.

Reactors, high-speed computers, a futuristic adult study center—they are items which scientists and educators take for granted, but which few people in this area actually appreciate. President Cross's speech was a heady dessert for a luncheon of cold cuts.

Perhaps the simplest item to appreciate is the grant from the W. K. Kellogg (of cereal fame) Foundation. The grant came as the result of months of elaborate preparations for an elaborate 98-page presentation by about 100 members of O.U.'s hierarchy and supporters.

Impressed with this teamwork and with O.U.'s highly successful but meagerly equipped extension division, and assured by everyone pertinent (including the Oklahoma Hotel Association: the Kellogg Foundation had no intention of aggravating prime cereal customers with the center's proposed housing units) that O.U.'s resources, location, attitude, progress, et cetera, et cetera, et cetera, were of storybook quality the Foundation made the grant; thereby making O.U. the fifth link in an adult study center network composed of Michigan State University and the Universities of Georgia, Chicago, and Nebraska.

It was a plum of major proportions. In a physical sense the grant means O.U. can begin construction in the area just south of Sooner City and west of Cross Center on a group of buildings which will include a 500-seat theater-in-the-round forum building, a dining hall, a housing area for 150 people, cottages for 80 people, an administration-service-student center, and a medical campus unit in Oklahoma City connected to the Norman Center by TV (so that medical demonstrations can be presented

In its immeasurable aspect, the center will mother know-how in an area where the promise of the future is stymied by the negligence of the past. Many "grown-ups" —college graduates as well as non-college graduates—find their advancement or even their jobs imperiled by the impersonal advance of scientific techniques and the consequent employer demand for employee specialization. It is impossible or very inconvenient for most of these people to fit themselves for new technical demands by enrolling in a regular college schedule. The college-connected study center, with its short course, correspondence course, forum, and lecture facilities offers ammunition for the man who finds himself in a losing battle with specialized competitors.

The new center will be administered by the University Extension Division, of which Dr. Thurman White is dean. Dr. White, as might be expected, is a busy man these days. First there was the grant application (of which he was the major architect) and now there is the application of the approved application: the jump to a main campus headquarters from the extension division's temporary structures in the North campus and the expansion of services from the extension division's 30,000 enrollees of last year to twice that many in the next few years.

Another Busy Man on Campus is Dr. William J. Viavant, head of O.U.'s Numerical and Analysis Computer Laboratory. Viavant is the man to see if you want to conduct research on transient behavior in batch thermo-gravitational columns without reservoirs for large separations or if you would like to know the effect of flow rate on separation in continuous flow thermo-gravitational columns—or if you would just like to understand the obviously appalling capabilities of the University's soon-to-be-installed high-speed computer of which President Cross spoke.

Viavant's laboratory is presently outfitted with an IBM 650 computer. The "650" is an undistinguished monster in a grey suit of steel, and it has been feeding on punched cards in an air-conditioned, sound-proof room in the first floor of Buchanan Hall for a little over a year. That room has been host to a stream of visitors from Oklahoma's computer-hungry industry.

The differences between the IBM 650 and the University's anticipated computer are essentially differences of degree. The new computer will be bigger, faster, more adaptable—and will attract more users.

The new computer is being fashioned by Rice Institute in cooperation with the Uni-

LUEPRINTS

The President's Message Had Sensational Points

Cross's Other Points

ur most serious problem is still low y salaries . . .

Unable to hire new teachers, ve had to limit ıy courses . . .

The Athletic Department is l our most sol- lepartment . . .

The loss of Dean Snyder was a serious one indeed . . .

versity of Chicago and O.U. This last three-in-one operation will allow O.U. to purchase a computer comparable to computers costing three to five million dollars. The cost to O.U.—$400,000.

Still, $400,000 is a bit of fund raising. The target date for operational use of the computer in a building of its own on the O.U. campus is 1960. And the Alumni Association's executive secretary, R. Boyd Gunning, has gone on a leave of absence in order to devote his full time to raising the funds for the high-speed computer and its home.

The attention being given to this project is considered to be as vital as any expenditure of the University. Planned as the heart of O.U.'s Industrial Park, the computer can both lure and sustain the research of a great center of industrial firms.

The cost of using the computer will be around 350 to 500 dollars per hour. A staggering sum at first glance but actually a highly economical one compared to the cost of employing a staff of men for one or two or however-many years to do what a high-speed computer can do in a couple of hours.

What can it do, this machine that by comic strip reputation can do everything that man can do? First of all—something it cannot do: it cannot think. A computer is a dream come true for the persons who explode with, "Who ever told you to think?" There is no inventiveness nor imagination in the intricate brain of a computer. Computers can only take orders and follow them and check them.

This they do rapidly. Speed is the basic advantage of the computer. Its speed makes the mind reel. Computer button-pushers talk of information available in microseconds and miloseconds and casually accept and promptly return computations which had been shelved in pre-computer days because of the time it would have taken to solve them.

The obvious reason President Cross devoted so much of his civic club speech to the computer was the fact that industries will be quick to come to Norman and make use of the computer's talents for solving their technical and optimization problems. But in addition the computer laboratory will be used by nearly every department of the University to pursue research in subjects as diverse as word concordance in the Bible to research in human thought process. Graduate students, particularly, will find the computer invaluable in their research. And, as an important complement, the computer will serve as an educational tool. giving Sooners first crack at the estimated 3,000,000 computer jobs which will be available by 1960.

It is doubtful that the third item in President Cross's speech would have ever been the light in a scientist's eye if it had not been for the efficacy of computers. That item is a nuclear reactor. O.U. will have both a live reactor and a reactor simulator in the north wing of the old Journalism building. The simulator will arrive this month.

The addition of this nuclear center along with the University's new high-speed computer will make O.U.'s engineering school one of the nation's finest—a reputation it already has, but a reputation which depends, as perhaps none of the University's other colleges, upon its ability to master the latest technology.

The latest is what they have. The reactor simulator purchased with a $14,300 grant made by the Atomic Energy Commission, performs exactly as a real reactor (except that it produced no nuclear radiation) so that in using it, engineering and science students can learn safe procedures and techniques before working with live reactors. The aerojet general nucleonics reactor of the swimming pool type cost $96,-950 and was purchased through a grant from the A.E.C. also.

The latter is actually "hot" and will be used in the instruction of advanced students. President Cross assured his Norman audience that the reactor is equipped with interlocking safety devices so that if anything goes wrong, the reactor shuts itself down automatically.

As an aside, President Cross mentioned that the tank holding the core of radioactive materials is 40 inches by 60 inches in cross section and 8 feet deep. It will be filled with some 500 gallons of distilled water and set in the ground surrounded with concrete shielding 40 inches thick.

The reactor is the same as the one exhibited at the Brussels World's Fair.

George Cross ended his speech two minutes after the first game of the World Series had started, but he had few compunctions. He knew the blueprints which he had discussed were red hot.