

school board would leave science teachers to determine when experiments are justified, to weigh their individual judgments about pain and cruelty against the educational purpose of the experiment. "This indeed would place an awesome responsibility in the hands of our teachers," Barrett pointed out, "but then again the minds of our children are also placed in his hands."

Apart from the legal solution, which is open to reversal by a higher court, the chicken trial points up a number of elements in the relationship between scientists and the humane movement. One element is sheer political power. The New Jersey SPCA, for example, is not a private organization of little old ladies but a vigorous public agency—a "body politic"—certain of whose members are permitted to carry arms and make arrests. The SPCA has been opposed to high school animal experimentation for some time—its critics say it is opposed to all experimentation and would like to close down commercial

and university laboratories as well. Had the decision gone the other way, it might have been in a position to make its views felt. "Our chief error," New Jersey SPCA president Frank Tomasulo commented in a recent interview with *Science*, "was in deciding against a criminal trial. If there had been a jury, they'd have been with us all the way." This may very well be true. In New Jersey, as elsewhere, educational institutions have well-placed friends. But the humane movement has heavy, public support.

Another attitude revealed during the trial is a kind of discomfiture with the way the world is going and a feeling that many of its ills are somehow attributable to the progressive practices of scientists. In his closing argument, SPCA attorney Martini said: "They say . . . these animals are going to die, but maybe this is of some educational value. This student is going to learn just how this experiment is done and they learn by doing, so let's open

the door and let the students learn everything by doing. Let them learn sex by doing. Let them learn drinking by doing. Let them learn everything by doing."

A retired biology teacher in frequent attendance at the trial was interviewed by *Science* during a court recess. "I believe students should learn all they can," she commented, "but sometimes I think science is just getting a little too science-y." (She then confirmed the stereotype most scientists have of humane-movement supporters by remarking that she would have to stop spending all her time in court because "my dog will disown me if I don't get home.")

Whether these sentiments are a tribute to benign social diversity or indications of a basic cleavage is not clear. But it is clear that, while scientists are convinced that what they are doing is right, the public does not uniformly share that conviction.

—ELINOR LANGER

## Integration: Negro College Hires an Impatient Briton

Racial integration of faculty and student body is the most obvious, and where it can be achieved, probably the most effective single step to be taken in relieving the cultural and intellectual isolation that has characterized most, if not nearly all, of the some 120 Negro colleges in the United States. In some cases, however, part of the benefit of such integration may be produced by a process of strain and conflict painful to those who are a part of it.

Integration can serve as an irritant producing, in situations which perhaps have remained stable and quiescent for too long, restlessness and a more critical spirit of self-examination. The irritation is marked when the white newcomer to an all-Negro faculty displays an uncommon boldness, even rashness, in moving—for reasons often debatable—to upset the status quo.

Clearly, there is such irritation at Virginia State College, a predominantly Negro college at Petersburg, Vir-

ginia, which in the fall of 1964, for the first time since the beginning of Virginia's convulsive political struggles over integration in the 1950's, hired its first full-time white faculty member. The newcomer was J. Raymond Hodgkinson, a young Englishman (now 38) and physicist with degrees from Manchester University (bachelor's) and the University of London (Ph.D.).

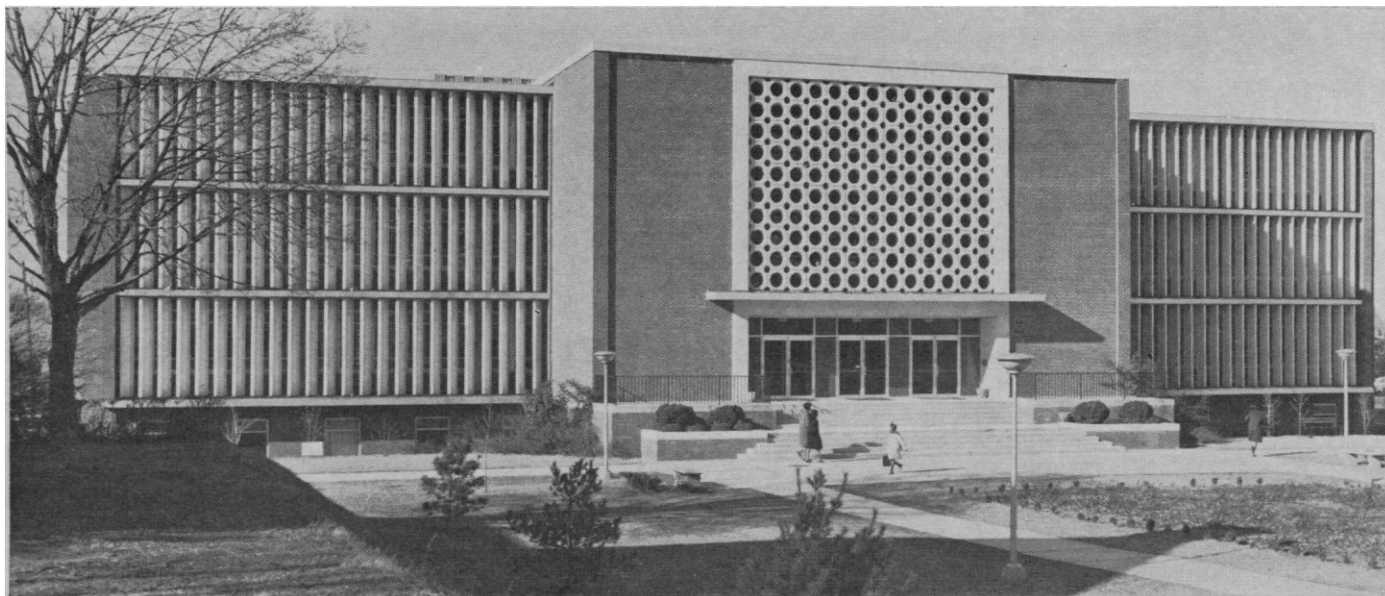
Hodgkinson, a slender fair-haired man who is a poet, folk singer and guitarist, kayak-canoeist, and ardent sailor and traveler as well as a scientist, was hired to serve as head of the physics department, with rank of full professor. However, in addition to running the physics department and teaching, he has been an irrepressible gadfly, constantly goading the faculty and college administration to change their ways. The extent of his influence at V.S.C. is disputed, but the very vigor with which some of the college leaders depreciate his gadfly role suggests

that Hodgkinson has been stirring things up.

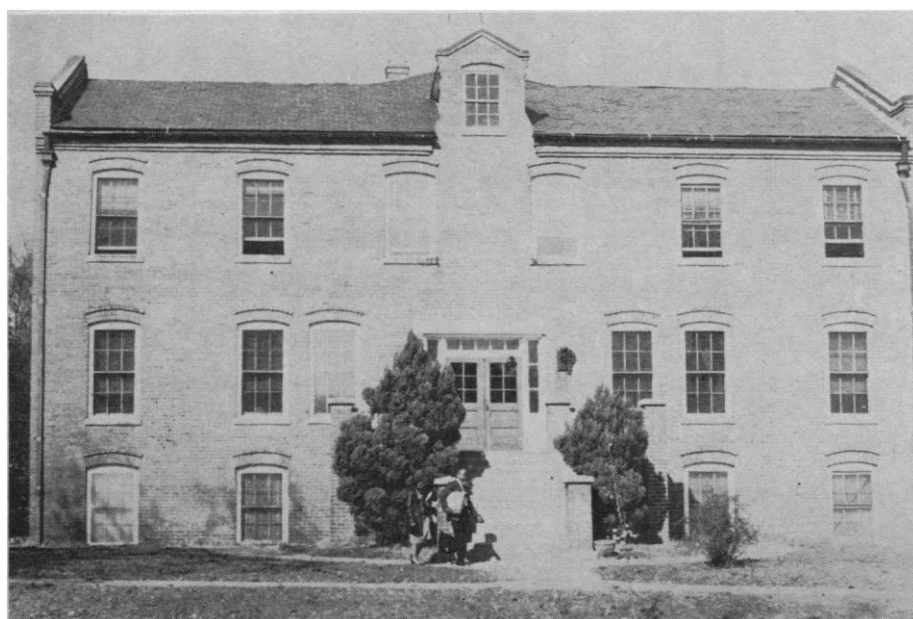
He has accused the administration of maintaining an authoritarian rule over the college and has reproached the faculty and student body for lethargy and submissiveness. He finds the atmosphere of campus assemblies stultifying and complains of the injection of religion—by the offering of prayers, for example—into required activities. He is in touch with a voluntary attorney for the American Civil Liberties Union and says he will file suit against the college if this should be necessary to bring "freedom of religion" to the campus.

He calls for major changes in the curriculum, and would reduce general studies requirements in order to allow science majors more time for work in science. He would make participation in the R.O.T.C. program, now mandatory for freshmen and sophomores, purely voluntary—a step which, in the judgment of some college officials, would undermine a program valued as a means of access to an officers corps which, historically, Negroes have found it hard to enter.

He deplores the slow pace of integration at the college, suggesting that the administration is not doing enough to recruit white students and to discourage the state from developing rival institutions in the Peters-



Recently completed library building is one of the new facilities at Virginia State College which contrast with the aging and inadequate structures, such as Vauter Hall (below), built in 1908, which once housed the college and signified the state's indifference to higher education for the Negro.



burg area which will cater to whites. Moreover, he contends that, to make V.S.C. competitive with white colleges, greater effort and initiative in raising the college's academic standards will be required.

Furthermore, he says that the values which predominate at Virginia State are the values of the "black bourgeoisie," a term he borrows from the late E. Franklin Frazier, the Negro sociologist. By this he means that many, though not all, members of the faculty are much less in-

terested in the scholarly and cultural pursuits proper to an academic community than they are in the airs and appurtenances of middle-class society, as they envisage it.

Hodkinson has come to the attention of the American Institute of Physics. At Hodkinson's invitation, an A.I.P. "visitor," Harry Lustig, chairman of the physics department at the City College of New York, spent 2 days at Virginia State last fall. In his report of 1 February to W. W. Watson, head of the A.I.P.'s visiting scientists

program, Lustig described Hodkinson as a person of "unquestioned ability, unusual versatility, incredible energy, and unlimited self-assurance."

He credited Hodkinson with rebuilding a run-down department and with bringing physics research to the campus by obtaining the support of the U.S. Public Health Service for a project on aerosols, the field in which he has done most of his graduate and professional work. Lustig added, however, that Hodkinson has "insistently and not always tactfully been engaged in advancing the cause of the intellect, of culture, and of freedom of expression at V.S.C."

"This has inevitably brought him into conflict with the college administration and his tenure is by no means assured. It is to the credit of the President that he recognizes Dr. Hodkinson's competence and his importance to the progress of physics at the college and has so far resisted the undoubted temptation to get rid of this 'troublemaker.' If a blow-up does come, the American Institute of Physics would contribute to the cause of excellence in physics and the advancement of learning by finding a way to support the head of the department," Lustig said.

Hodkinson's controversial role at Virginia State is scarcely to be taken as typical of what can be expected when a Negro college takes on a white faculty member. On the contrary, Hodkinson's importance has turned more on his extraordinary personal qualities than on his race, although, if he were not white, his

impact on the college hardly could have been the same.

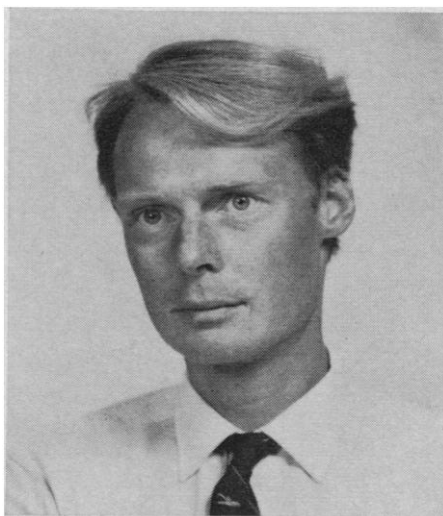
Nevertheless, any picture of the institutional setting and the personalities with which Hodkinson is interacting at V.S.C. is likely to present aspects familiar to those who have studied conditions at Negro colleges generally. A 1965 report, "The Predominantly Negro Colleges and Universities in Transition," prepared by Earl J. McGrath, executive officer of the Institute of Higher Education, Columbia University Teachers College, indicates that, generally, the Negro institutions share many of the same problems and opportunities—usually derived from one overwhelmingly important historical and social condition: segregation.

These institutions, with few exceptions, have been apart from the fresh intellectual currents that come from research and scholarship and active participation in the larger academic community. In recent years, the federal government, the foundations, and a number of the nation's leading universities have undertaken to try to break down the isolation of the Negro colleges (*Science*, 24 July 1964), but it may be years before the fruits of these efforts are clearly visible and widespread.

Devoted primarily to teaching, the Negro institutions have found in the ill-prepared students produced by inferior high schools and a segregated life in rural or urban slums, both an obstacle to establishing high academic standards and a strong reason for remaining in existence. Without the Negro colleges, many Negro students would find no opportunity for higher education at all.

In the fall of 1964 more than half of the nation's estimated 185,000 Negro college students were attending predominantly Negro colleges. The quality of these institutions and their graduates is, therefore, a matter of importance. Integration, beyond a token, is a means of self-improvement still out of reach for many of the weaker institutions. Seventy-five Negro colleges reported in 1964 that they had not a single white student.

On the other hand, integration seems likely at some of the stronger, better-financed institutions, and, in fact, is occurring, though usually in a modest and tentative fashion. In the case of a few institutions integration has been substantial—for ex-



J. Raymond Hodkinson

ample, at two West Virginia state colleges, formerly for Negroes, half or more of the students are now white.

Faculty integration is within the power of the stronger institutions to bring about, and even in the case of state-owned colleges of the Deep South, political obstruction to such integration has been breaking down. Most Negro colleges have some white faculty members, and, at a few, the white teachers are as numerous as their Negro colleagues, or nearly so.

One may reasonably assume that faculty integration is an important positive factor in encouraging white students to attend a Negro college. Accordingly, the gradual integration of the Virginia State faculty must be taken as a hopeful sign by those who wish to banish "Negro" from the label usually applied to V.S.C. There are now 12 white teachers serving full-time at Virginia State, two of them (one a young English physicist) Ph.D.'s recruited by Hodkinson to join the science faculty. There are other hopeful signs as well, for the college is entering an era when a growing number of influential white Virginians are likely to support its aspirations. For example, the Rector of the Board of Visitors, Edward A. Wayne, president of the Federal Reserve Bank of Richmond, hopes to see the college become an integrated institution.

Just as is true of the faculty, integration of the student body has made only a small beginning, which should surprise no one because the college is located in that part of the

state where the segregationist spirit is strongest. Virginia State has about 2000 regular students, the great majority of whom live on campus. None of the residential students are white, and if there are any full-time white day students, they are few in number. However, white students attending part-time are said to number perhaps 50. An estimated 100 white school teachers attended last summer's federally supported institutes in science and other fields. Many of these teachers lived in the dormitories.

Virginia State, though less well known than institutions such as Fisk and Howard universities, was one of the first 16 Negro colleges to be accredited (in 1958), on the same basis as white institutions, by the Southern Association of Colleges and Schools. If V.S.C. is not among the very strongest of the Negro institutions, neither is it among the weaker ones.

Founded in 1882, Virginia State is a product of Virginia's immediate post-Reconstruction era, a time when Negroes still exercised considerable political influence and even held seats in the State General Assembly. In 1902, the same year Negroes were disenfranchised by a state constitutional convention dominated by white supremacists, the legislature eliminated college-level studies at Virginia State, leaving the college with no role but the training of artisans and of school teachers many of whom would know little more than their pupils.

In the 1920's, however, V.S.C. was designated a land-grant institution for Negroes and the college department was restored. V.S.C.'s teacher-training orientation has been maintained, but programs have been developed, through the master's degree level, in a number of arts and science fields as well as in education.

Segregationists, by denying (until the 1950's) Negroes admission to Southern universities, most of whose graduate programs were third- or fourth-rate, did at least a modest number of them an unintended favor. Unable to pursue their studies within their own region, the ablest or most ambitious of them went North, often gaining admission to prestigious universities such as Columbia, Michigan, and Chicago. Virginia State, with a total full-time faculty of 204, has 53 professors with the Ph.D. or Ed.D. degree, mostly from non-Southern institutions. Most academic courses at

V.S.C. are taught by teachers with an advanced degree. Thus, the intellectual resources at Virginia State are more impressive than those of many small white colleges.

As the Rector's attitude indicates, V.S.C. is benefiting from a quiet state political revolution in which Virginia's Negro voters are playing a significant part. Its operating budget of \$5.5 million for next year is twice the size of the budget of 12 years ago. An ambitious building program has been under way for some time, and new structures keep going up. One of the next to be erected is a \$1.6-million science building. Salaries next year will be 75 percent higher than those of a decade ago. Assistant professors will earn between \$7400 and \$8900, while full professors will earn between \$10,500 and \$14,000.

Whether or not it is true, as Hodkinson insists, that Virginia State's leaders have become stolid and complacent, his efforts to shake things up began soon after his arrival on campus in 1964. However, Hodkinson did not come to V.S.C. directly from England, where he had worked as a government research director concerned with dust problems in mining; he came from the University of Rochester's School of Medicine, where he was a researcher in the department of radiation biology and biophysics.

"The first inkling we got that Hodkinson was an unusual person was when he wrote saying he wanted to bring to the United States, at our expense, a sailboat, two kayaks, a base viol, and several cats," a former associate at Rochester said recently. Once in the United States, Hodkinson quickly took up the peripatetic habits of many members of the American scientific community by frequent travels to professional meetings and on consulting assignments.

Although Hodkinson's competence as a researcher in aerosol physics was never questioned, his department head did not try to dissuade him when he announced, some 2 years after his arrival, that he planned to go to Virginia State. For his part, Hodkinson had found the scope of the research expected of him at Rochester too narrow for his taste.

Hodkinson had become interested in teaching at a Negro college while visiting a friend at a private Negro institution in Virginia. Word of his



Robert P. Daniel

interest reached Virginia State, and he was offered the position of head of the physics department, which he accepted after spending several days on the campus. Hodkinson says he was motivated in his decision to come to Virginia State by a desire to be his own boss, as a department head, and to have a chance to teach as well as to do research. It is apparent, however, that his motivation included a good measure of missionary zeal.

Hodkinson ranks the revitalization of the physics department as his most substantial achievement at Virginia State. Although his performance as a teacher (the A.I.P. visitor called him "dynamic and clear") is not highly rated by the college leadership, no one seems to dispute Hodkinson's claim that he has established some valuable new ties between Virginia State and the outside academic community. In his first year at V.S.C. he delivered papers before several professional groups, such as the Optical Society of America, thus bringing Virginia State to the attention of people who had never heard of the college.

More important, through his professional connections he placed four of his physics majors in summer research jobs at such places as the University of Minnesota, Clarkson College of Technology, and the PHS's Taft Center at Cincinnati. Also, Hodkinson has instituted a schedule of weekly seminars to which outside speakers are invited. The speakers have included physicists from Bell Telephone Laboratories, the National Bureau of Standards, Caltech, Louisiana State University, and the University of Vir-

ginia. Other departments, of course, bring in outside speakers, but Hodkinson feels that the quality of the physics lecturers and the frequency of the lectures make his seminar program unique.

According to his critics in the college administration, and even some Negro colleagues who are in sympathy with many of his views, Hodkinson applies unfair standards in appraising the quality of his students and the Virginia State curriculum. He is often said to expect Virginia State to measure up to the standards of a British university with an elitist student body. Hodkinson replies that this is nonsense, that he had diluted his course for new physics majors to the point where the contents of a two-semester textbook (meant for liberal arts students) are stretched to cover four semesters.

Even so, he says, of the 18 freshmen physics majors admitted to the department last fall, nine already have failed and he expects no more than three to complete the year satisfactorily. The department has a total of six majors in the sophomore, junior, and senior classes, and, of those, Hodkinson says only three are competent students. He has only three graduate students, and he believes that in order to build up his graduate program he must look to the graduates of other institutions.

(According to the director of testing, Virginia State's seniors score, on the average, in the 50-percentile range on Graduate Record Examinations. For admission to graduate studies at V.S.C., a score in the 70-percentile range is required. Many students struggle even to complete their undergraduate studies, often remaining for an extra semester or two to compensate for time lost as freshmen doing noncredit remedial work.)

Virginia State's president Robert P. Daniel and other leaders of his administration contend that Hodkinson is impulsive and often ill-informed in criticizing the college. Daniel observes, for example, that although Hodkinson makes much of the need for a reevaluation of the curriculum, he was off traveling in Europe and Africa last summer when the college began making preparations for just such a review. However, certain of Hodkinson's criticisms find support among some of his Negro colleagues and among many of the students, includ-

ing the president of the student government.

"I think the biggest gripe of many faculty people is that they are not allowed to function as full professionals," says one Negro professor, who agrees with Hodkinson's characterization of the Daniel administration as "authoritarian." (The McGrath report observes that the dominant, "if not patriarchal," role of the president at many Negro colleges has been traditional.)

The faculty and staff senate, an advisory body, is dismissed by some as made up largely of "timid souls" afraid to discuss anything beyond minor matters such as parking permits and library hours. The faculty is represented on the college's educational and executive councils, and these bodies do decide some important questions of policy. However, deans, directors of schools, and other members of the administration make up a large part of the councils' membership; nevertheless, in the judgment of a faculty member who has served on both of these bodies, they would be more important as channels through which the faculty could express itself if the faculty were less passive and if there were less unchannelized muttering.

The campus chapter of the American Association of University Professors, which Hodkinson regards as a tame group, said in a letter to the faculty in January that teachers at Virginia State were lucky in that the administration is so solicitous of their welfare that it "poses no professional problems whatsoever for us." Guffawing at this, Hodkinson and one of his white associates circulated a letter giving their view. It said that AAUP should seek to obtain a faculty senate with real power. Other suggestions included the freeing of professors of the drudgery of teaching remedial courses.

"He has whipped the conscience of some of the faculty members," a professor told *Science*. "I've heard a number of comments on his list of particulars for AAUP."

Hodkinson, a bachelor, spends much of his spare time with students. He gives guitar lessons and serves as adviser and mentor for the "Troubadours," a folk-singing group which he helped organize. He has written articles and poems for student publications and has spent much time talking with students about their differ-

ences with the administration over campus rules and other issues. Dazzled by his versatility, some students are said to regard Hodkinson as Virginia State's Renaissance man.

After a student protest rally in early 1965, which ultimately resulted in some concessions by the administration, Hodkinson, unable to obtain a meeting of the faculty senate, gave notice for the faculty to gather in his lecture room for a discussion of the students' petition. Of the nearly 200 faculty members, about 30 showed up, including—Hodkinson is convinced—an administration "spy."

President Daniel suspected that Hodkinson's eager siding with the students in their demands for more liberal regulations for coeds, higher pay for campus jobs, and other matters was the act of a white professor trying to curry favor with Negro students. In the tradition of bosses who must deal with unruly subordinates, Daniel sent Hodkinson a letter of reprimand, apparently thinking it might engender an accommodating spirit. It did not. It is since receipt of the letter and several Dutch-uncle talks over the president's desk that Hodkinson has taken some of his boldest initiatives, such as threatening to bring suit over the religion issue.

However, one may question whether Hodkinson will be around long enough to see his crusades through to either victory or defeat. He goes on leave of absence this summer to Sweden, where he will do research for a year at the Royal Caroline Institute in Stockholm. President Daniel has not granted him tenure, though, after 2 years, it is usual to do so in the case of a person brought to the college as a full professor. Moreover, Hodkinson complains that his choice of a young white professor to serve as acting department head during his absence has been overridden by Daniel.

Hodkinson believes that no Negro, behaving as he has, would have lasted so long. "Being white has protected me," he says. "They haven't fired me." Furthermore, he doubts that a Negro, unable to readily acquire a circle of white friends off campus, would have withstood the social pressure he has felt. Hodkinson says that to part of the college he is known as the "great white father." "I've been ostracized very strongly," he says. "For a time, I was sent to Coventry. People wouldn't speak."—LUTHER J. CARTER

## Announcements

"Health sciences advancement awards" are available to institutions in the United States, its territories, and possessions, through a program recently inaugurated by NIH. The program is designed to provide opportunities, primarily for graduate academic institutions, to "advance . . . the stature of their research and research training in the health sciences." Awards will be made on a competitive basis; they are for periods of up to 5 years and are not renewable. Applications should be in the form of a letter, plus four copies of a 3000- to 5000-word summary of the proposed program, its costs, and the present availability of facilities. Construction funds will not be provided under the program. Application deadline: 15 July. (Health Sciences Advancement Award Program, General Research Support Branch, Division of Research Facilities and Resources, NIH, Bethesda, Maryland 20014)

### Scientists in the News

The first director of the International Agency for Cancer Research in Lyon, France, will be **John Higginson**, a professor of pathology at the University of Kansas. He will join the agency 1 July.

**Allyn W. Kimball**, professor of statistics, biostatistics, and biomathematics at Johns Hopkins University, has been named dean of the faculty of arts and sciences at the University's Homewood campus, as of 1 July.

**Grover E. Murray**, vice president of academic affairs at Louisiana State University, will become president of Texas Technological College, Lubbock, 1 September.

**Daniel Swern**, professor of chemistry at Temple University and senior research investigator at the Fels Research Institute, will be a visiting lecturer at Osaka University, Osaka, Japan, for the first semester of the 1966-67 academic year.

New York University has appointed **Nathan Marcuvitz** professor of applied physics in the school of engineering and science. He previously held the first Institute Professorship at the Polytechnic Institute of Brooklyn.