often been found) that a group of physicians can receive ample compensation and yet furnish equivalent care to patients at lower cost than can their individual colleagues in the community, we have a different story. The advantages of group practise which accrue directly from the organized nature of that practise are clearly in the interest of both the profession and the public. No condemnation of "unfair competition" which is based only on such advantages can ultimately be maintained.

Opposition to the plans of the committee is also based on the fear of "lay control" of medical practise. The committee is quite at one with such critics in stating clearly that "lay groups organized for profits have no legitimate place in the provision of this vital public service." On the other hand, it is apparent that in a "vital public service" there are vital public interests at stake. Medicine can not to-day be practised without large capital sums invested in hospitals, laboratories and clinics; and the public must continue to have its voice in the management of such institutions. The combination of a lay board representing the public interests involved and a professional staff in full control of professional policies seems to offer the only rational solution of the problem.

Finally, there is the fear that group practice and group purchase would mechanize medicine and wipe out the essential personal relationship between physician and patient. There is no doubt that this has happened in some group practices, and there is no doubt that where it does happen it is destructive of the essential basis of good medical care. There is no reason, however, why it should happen. It does not appear to have happened in the university and industrial services we have studied or at Fort Benning. It does not happen in many of our best clinics where the appointment system is coming into use. In a properly organized medical center such as we have described the relation between family physician and patient (which has so largely disappeared from private practice in urban centers) could be restored to a new importance and dignity and freed from the constant inhibitions on both sides which are due to the intrusion of the element of pecuniary responsibility at every stage in what should be a free personal relationship.

The committee does not of course recommend the immediate completion of its program on any general scale or indeed in any given community. It does endorse the principles of group practice and group purchase as basic in any sound program of advance; but it recognizes that local differences—social, economic, geographical, psychological—will make widely differing applications of these principles desirable.

The committee recommends "that the study, evaluation and coordination of medical service be considered important functions for every state and local community, that agencies be formed to exercise these functions, and that the coordination of rural with urban services receive special attention." It urges experimentation in the direction of expanding existing institutions, hospitals, group clinics, pay clinics, industrial and university medical services and the like. To readers of SCIENCE it may be of particular interest to note the recommendation that

The student health services, found feasible in certain universities, may be extended to other universities and academic institutions, and the services made available on a suitable periodic payment basis to faculty members and their dependents and to other university employees and their dependents. In "college towns" it may frequently be feasible to expand the university medical service into a community medical center which serves townspeople as well as students.

#### To quote again,

The aim should be to adopt objectives which at present seem sound, and to develop definite and purposeful experimental methods of approaching those objectives, preserving, insofar as it is compatible with effective service, the maximum amount of local self-support, and self-control, and the greatest freedom, consistent with social welfare, for the professions and the agencies involved. Although too great decentralization of authority limits competence and threatens economic effectiveness, too great centralization of authority in any plan carries with it elements of ultimate weakness. Fortunately, we have retained in this country a wholesome local responsibility for medical service. This fact means that opportunities exist for trying out many plans under various and variable conditions. Where action can be limited to the city or county, we have several thousand experiment stations. If state action is necessary, there are fortyeight laboratories.

Experimental social planning along sound theoretical lines, but based on existing American institutions —this is the objective set before us for the solution of the economic problem of medical care.

# **OBITUARY**

## ORMOND STONE

#### 1847 - 1933

AFTER living to the ripe age of eighty-six years, Professor Ormond Stone was instantly killed on January 17 near his home in Centreville, Virginia, when struck by an automobile while he was walking along the road. With his passing, the University of Virginia loses its oldest professor and astronomy a noted figure.

He was born in 1847 in Illinois and he received the M.A. degree from the University of Chicago. For five years he was at the U.S. Naval Observatory in Washington and left there in 1875 to go to the Cincinnati Observatory as director. When Leander McCormick, the son of the inventor of the famous reaping machine, gave to the University of Virginia the 26-inch refractor, the telescope was the largest and the finest in the world. In looking for a director, the distinguished astronomer Simon Newcomb recommended for the position the director of the Cincinnati Observatory. For thirty years, from 1882 to 1912, when he was retired on the Carnegie Foundation, Professor Stone directed the work of the McCormick Observatory. No photographic work was attempted, but valuable visual observations were made on double stars, variable stars, nebulae, the satellites of Saturn, etc. In addition, he observed three total solar eclipses. that of 1869 in Iowa, he was in charge of the Naval Observatory expedition to Colorado in 1878 and of the McCormick expedition to South Carolina in 1900.

Professor Stone was as much at home in the field of mathematics as he was in astronomy. He was the founder and the first editor of the *Annals of Mathematics*, later taken over by the American Mathematical Society.

The Vanderbilt fellowships at the University of Virginia attracted to the McCormick Observatory many capable young men. Among those now living who hold the degrees of doctor of philosophy from Virginia and who have attained prominent scientific positions are the following: Edgar Odell Lovett, president of Rice Institute; Heber D. Curtis, director of the University of Michigan Observatory; Charles P. Olivier, director of the Flower Observatory; Herbert R. Morgan, U. S. Naval Observatory; Ralph E. Wilson, Dudley Observatory; G. F. Paddock, Lick Observatory, and T. McN. Simpson, Randolph-Macon College.

The combination of a great telescope and skill as a mathematician brought distinction to the University of Virginia. Naturally the McCormick telescope did not long remain the largest in the world. Four years after its opening, the Lick telescope of 36-inch aperture was dedicated.

Professor Stone came of a prominent family. He was a brother of Melville Stone, for many years general manager of the Associated Press.

S. A. MITCHELL

#### ARTHUR GRAY LEONARD

DR. ARTHUR GRAY LEONARD, professor of geology at the University of North Dakota and state geologist for thirty years, died at his home in Grand Forks on December 17, 1932. He was born at Clinton, New York, March 15, 1865. He graduated from Oberlin College in 1889, received the degree A.M. from his alma mater in 1895 and the Ph.D. degree from the Johns Hopkins University in 1898. He served as assistant state geologist of Iowa, assistant professor of geology at the University of Missouri and professor of geology at Western College before going to the University of North Dakota in 1903.

The wide range of Dr. Leonard's contribution to the knowledge of the geology of North Dakota is indicated by the titles of his numerous geological papers in scientific journals and the reports of the United States Geological Survey and the North Dakota Geological Survey on such subjects as lignite coal, clay, gravel and the possibilities of oil and gas. A complete list of his publications numbers over fifty.

Dr. Leonard's greatest contribution to the science aside from that as a teacher was his addition to the basic knowledge of the geology of lignite coal, its origin and the relation of the lignite-bearing beds to the geologic time scale. Howard E. SIMPSON

### JOHN F. G. HICKS

THE many friends and former students of Dr. J. F. G. Hicks will regret to learn of his death on December 13, at his home in Portland, Oregon. At the time of his death he was teaching in the Institute of Technology Junior College in Portland. His health failed while he was doing research at the Bureau of Standards on paper deterioration (1929–1931).

Dr. Hicks was born in Philadelphia in 1884. He received his B.S. degree from the University of Pennsylvania in 1906, and his M.S. and Ph.D. degrees from the University of Illinois in 1916 and 1918, respectively.

Besides holding several industrial positions, Dr. Hicks held professorships in the departments of chemistry of Oregon State College, University of Nevada and North Pacific College. At the time of his death he was actively engaged in writing a textbook of chemistry.

## RALPH W. HUFFERD

#### RECENT DEATHS

CHARLES G. FAIRCHILD, formerly professor of physics at Oberlin College and later president of Rollins College, died on January 20, at the age of eighty-nine years.

DR. WINFIELD S. DUDGEON, professor of botany at Ewing Christian College, Allahabad, India, died at Ames, Iowa, on December 26, at the age of forty-six years. Professor Dudgeon had been spending a sabbatical year in the United States.

DR. JOHN H. STUMBERG, a member of the research staff of the Rockefeller Institute at Princeton, died suddenly on January 20, at the age of twenty-six years.

Nature announces the deaths of Professor Paolo