of units it is often impossible to add new acquisitions to existing units. In 1934 the average unit contained 2,900 acres of plantable land compared with 2,400 acres in 1929. Of the 186 units 74 are in England, 27 in Wales and Monmouth and 85 in Scotland.

Developments in forest technique are recorded, and, with regard to education, it is stated that the average attendance of forestry students at the Universities of Oxford, Cambridge, Bangor, Edinburgh and Aberdeen was approximately 160 a year and in the 15-year period some 524 degrees and 222 diplomas were awarded. The Imperial Forestry Institute, established at Oxford in 1924 for post-graduate instruction, has been attended during the 10 years by 274 students.

Interest in the countryside and the preservation of its distinctive character and amenities has increased greatly, according to the *Times*, in the last few years, and the report shows that, in the course of managing the New Forest, it has become apparent that still wider recreational use might be made of unplantable land. This area more nearly conforms to the general conception of a national park than any other in Great Britain. There are no means of estimating the number of people who visit or use the New Forest in the course of the year, but there must be many tens of thousands. For campers alone some 800 to 900 permits are issued annually. Of all the numerous ancient Royal forests only two—Dean Forest and New Forest—have survived, haphazard, in a form which affords opportunity for both timber production and public recreation. It appears to the commissioners that by taking a little thought and possibly incurring a little additional expenditure in the utilization of the land acquired for the new forests, it may be possible to provide, for the future, areas as highly prized by the public as is the New Forest to-day.

The commissioners have recently been in communication with the Council for the Preservation of Rural England on the subject of the relation of forestry and afforestation to the amenities of the countryside and a joint informal committee has been formed for the discussion of outstanding questions.

PETROLEUM LABORATORIES OF THE BUREAU OF MINES

Industrial and Engineering Chemistry states that plans for future activities of the research laboratory at the Amarillo, Texas, Helium Plant have been announced by Dr. John W. Finch, director of the U. S. Bureau of Mines. The laboratory staff, which in the past has been concerned largely with work relating to production and conservation of helium, will direct its efforts toward studies of technical problems involved in production and utilization of petroleum and natural gas. The Amarillo laboratory is one of the best equipped in the country for research on properties of gases at low temperatures.

The laboratory at Amarillo will make studies of physical and thermal properties of petroleum mixtures that have influence on their flow through the producing sands and in wells, using specialized experience and technique developed in the research that has done so much to improve methods and reduce costs of extracting helium from natural gas. Also the activities of the research group at Amarillo will include special studies of the causes and prevention of freezing in high-pressure, natural gas pipe lines, often experienced at temperatures many degrees above the normal freezing point of water. This work will be closely correlated with investigations of flow of natural gas through pipe lines, which have been under way at the bureau's experiment station at Bartlesville, Okla.

The petroleum research activities at Amarillo, as well as the continued operation of the government-owned helium plant and 50,000 acres of natural gas properties, will be under the general direction of R. A. Cattell, chief engineer of the Petroleum and Natural Gas Division, with headquarters in Washington, D. C. C. W. Seibel, supervising engineer of the helium plant, will be in administrative charge at Amarillo, and several petroleum technicians will be added to his staff to aid in the petroleum research centered there.

The petroleum field office of the bureau at Laramie, Wyo., is being reopened as a result of a provision in the appropriation for the fiscal year ending June 30, 1936, for establishing and operating a petroleum experiment station on the campus of the University of Wyoming. Offices and laboratories are now in temporary quarters but will be moved to a new building to be erected by the university. The office was closed on June 30, 1933, because of reduction in funds available for oil and gas investigations. The staff will begin work with a general survey of the Rocky Mountain oil fields and refineries.

MOTION PICTURE FILMS OF THE NATIONAL ARCHIVES OF THE UNITED STATES

A CORRESPONDENT of *The New York Times* calls attention to a measure establishing a national archives of the United States, which has recently been enacted. This section reads:

> The National Archives also may accept, store, and preserve motion picture films and sound recordings pertaining to and illustrative of historical activities of the United States, and in connection therewith maintain a projecting room for showing such films and reproducing such sound recordings for historical purposes and study.

The "projecting room" is a small theater, equipped with the latest and finest in motion picture equip-

ment, and having a seating capacity of about 225. It will never be open to the public, but is reserved for the use of accredited research students and scholars.

So far as is known, this is the most extensive effort by any country to provide for the central collection and storing of historic materials through the medium of motion pictures. The *Times* writes:

> The question arises as to what benefit will accrue to scholars from the privilege of viewing "old" films when the average life of a film is only about fifteen years. In this connection the chief concern of Captain John G. Bradley, in charge of the division, is the problem of preservation. He has the assistance of the National Research Council, the United States Bureau of Standards, the Carnegie Foundation and a number of private companies and film chemists in this work.
>
> Stored in a special library, each nitrate film is to be placed in an elaborate ventilated compartment. By control of the humidity and temperature of the air and the removal of all deterrent gases, it is hoped to lengthen the life of films from fifty to a hundred years, instead of their present fifteen, and finally, by duplication, to preserve them in perpetuity.

In stocking this remarkable library, the difficulty is one of selection. According to the *Times,* some accessions will be made by transfer from other government agencies of records of such epoch-making events in the life of the nation as inaugural processions, dedication services, Indian life, etc.

The second means of supply, by gift, is one into which the exercise of much discrimination enters. Leading motion picture producers have offered rare films, while the Motion Picture Academy has offered its prize-winning plays. There will not be room to keep more than a small percentage of the gifts proffered and so far none of them have been accepted.

With the consent of Congress and under authority of the National Historical Publications Commission, pictures may be purchased or recorded. These two provisions of the act, however, have not yet been invoked.

AN INTERNE SYSTEM FOR MUSEUMS

ESTABLISHMENT of an interne system to train candidates for museum work, similar to the system in use for many years in training men for the medical profession, has been announced, according to *The New York Times,* by Philip N. Youtz, director of the Brooklyn Museum, in Eastern Parkway. The Rockefeller Foundation has offered funds for six fellowships to make possible this system, the first of its kind in museums.

"This project," Mr. Youtz said, in presenting the plan to the Rockefeller Foundation, "provides a means by which candidates for museum positions and younger members of the profession may have a period of practical experience in a socially oriented museum where they will not only learn methods of presenting museum material to the public but where they will become acutely conscious of their obligation to the public.

The Rockefeller Foundation approved the plan on June 21 and expressed its preference for men who were thoroughly grounded academically and who were most certain to find places of leadership in the museum profession, either as curators or executives.

It is expected that the first interneships will be started on September 1. Candidates have been recommended by Professor Paul J. Sachs, associate director of the Fogg Art Museum of Harvard University and president of the American Association of Museums; Laurence Vail Coleman, director of the American Association of Museums; Horace H. F. Jayne, director of University Museum, University of Pennsylvania; Theodore Sizer, associate director of the Gallery of Fine Arts, Yale University; Professor Charles Rufus Morey, of Princeton University, and Dr. Walter W. S. Cook, chairman of the Fine Arts Graduate Center, New York University.

Professor Sachs, a sponsor of the plan, wrote: "The whole subject has long seemed to me of fundamental importance. I have advocated it for years. I made it the burden of my presidential address at the meeting of the American Association of Museums in 1934, in Toronto, and this year in Washington. I am satisfied that important results will be achieved."

FEDERAL FELLOWSHIPS FOR HEALTH OFFICERS

ACCORDING to a statement received from Science Service, over $1,000,000 of the funds assigned to the United States Health Service in the social security program will, if the funds are appropriated, be used within the next year to train personnel for state and local health departments. Plans for this training by means of short- and long-term fellowships are being drawn up by officers of the service following suggestions made by the recent Conference of State and Territorial Health Officers.

In outlining these plans, Dr. C. E. Waller, U. S. Public Health officer in charge of this phase of the program, pointed out that such provision for the training of health department personnel is one of the most important developments in public health in this country. Never, even during the depression, have there been enough trained workers for health departments, the demand for trained medical health officers especially having always exceeded the supply.

Two types of training courses were suggested by the Conference of State and Territorial Health Officers. Details for setting these up are now being worked out