Davy Rolleston, of England, and Dr. Henry E. Sigerist, of the United States.

AT the conference of directors of European Zoological Gardens recently held at Basle, Switzerland, it was decided to enlarge the scope of the conference by making it international. So far Germany, Austria, Switzerland, Holland, Poland and the Scandinavian countries have been represented. It is hoped now to include directors of Zoological Gardens from Great Britain, the United States, France, Belgium and other nations. The meeting in 1936 will be held in June at Cologne.

THE 1935 annual meeting of the Texas Academy of Science will be held at College Station from November 8 to 9. The general program is as follows: Friday, November 8, forenoon: Opening business session followed by technical sessions of the various sections. Afternoon: Continuation of the technical sessions by sections. 6:15: Annual dinner of the academy and its affiliated societies. 8:00: Lecture by an outstanding scientist. Saturday, November 9, forenoon: Business session of the representatives of the affiliated societies. General technical session. Noon: Academy luncheon followed by the final business session. Afternoon: Meetings of the various affiliated societies; field trips; meeting of the junior academy of science. 6:15: Dinners of the affiliated societies; junior academy dinner followed by their business session. 8:00: Lecture under the auspices of the Central Texas Section of the American Chemical Society. Requests for space for exhibits should be made to the secretary, Frederick A. Burtt, College Station, at once.

A FUND of $40,000 has been donated by the Supreme Council, Scottish Rite Masons, for the study of dementia praecox. The research program will be under the direction of the National Committee for Mental Hygiene.

DISCUSSION

ZOOLOGY AND THE MOVING PICTURES

To those who are interested in the preservation of the native fauna, no recent book is so interesting or so significant as "Pilgrims of the Wild," by Grey Owl, lately published in London.[1] Grey Owl, already well known for his writings, is of Scotch and Indian (Apache) parentage and was adopted into the Ojibway tribe of northern Ontario. He tells us how he was a hunter and trapper, who gradually came to feel that it was his mission to defend the life of the northern forests, and the beaver in particular; and how, after many tribulations and much hardship, he won success. An editor who had been printing his articles brought them to the attention of the Canadian Parks Service, suggesting that the activities of the beavers should be recorded in moving pictures. This was done, and to-day there are several reels available (16 mm film), presenting a wonderful picture of beaver life. They have been shown all over Canada and in other countries. My wife, thanks to the courtesy of the Canadian Parks Service, has been able to show them to many thousands in Colorado, California and Wyoming, always meeting with enthusiastic appreciation and requests to have them repeated. There can be no doubt that the moving picture was a major factor in determining the Canadian policy with reference to the beaver. The officials of the Parks Service were already interested in conservation, but it was the picture which reached the people, and aroused their lively interest and sympathy. Thus every one felt that he personally knew what it was all about and that it was his concern to see that the wild life of the country should not be utterly destroyed. The democratization of conservation, if we may so term it, has been one of the most interesting and hopeful movements of modern times, and the results are apparent all over the world.

The pictures appeal both to the intellect and the emotions. Zoologists preserve in museums the bodies of animals and describe the genera and species as illustrated by such materials. Yet every creature has its pattern of behavior, the elements of which can be determined as individual, specific, generic or what not, just like the structural features. Now, with the aid of the moving picture, these phenomena can be recorded, and the film so far improves on actual observation, in that it can be repeated at will, and when it is desirable, the motion can be slowed down so that every movement is easily studied. We recently offered a program to the large class in psychology at the University of Colorado, consisting of three films. The first showed the excellent team-work of a group of ants, which pulled together, as we should do, to remove an obstacle. The second was one of the Grey Owl beaver films, showing how the beavers worked on a cooperative project, but each animal worked alone. The third showed trained elephants working in the teak forests of Siam (recent picture taken by Dr. Douglas Collier), illustrating the extraordinary intelligence and educability of these

[1] Lovat Dickson and Thompson, Ltd., 38 Bedford Street. January, 1935.

animals. We have several pictures of bees and wasps nesting, taken in Colorado by Robert Niedrach, of the Colorado Museum of Natural History. One shows the Sphex wasp with its pebble, the beginnings of the use of a tool. Another shows the wasp which stores grasshoppers for its young. Twice a wasp is seen to drag the grasshopper in, swiftly and successfully, by the head. It looks like infallible instinct. But the third wasp takes hold of its grasshopper about the middle and has a most strenuous time because it will not go in the hole.

More and more, the pictures are coming to be used for such purposes as I have indicated, and a very long story could be written concerning activities of this type in different parts of the world. Nevertheless, we are on the threshold of the work. The coming years will certainly see great developments, especially in the educational field. The really extraordinary thing is that progress is so slow; that college departments, museums and government bureaus do not do more to develop trained workers and suitable equipment. The picture must be no longer merely for amusement; it must be designed to stimulate thought and, through thought, action. It must be the means of restoring to zoology the half of that subject which has been so greatly neglected, owing to unavoidable circumstances. Educational authorities may justly fear the deterioration of courses through the introduction of elements which appeal to the emotions, but seem to have little intellectual content. Undoubtedly this danger lurks in the careless use of the moving picture, but that is no reason for neglecting such a helpful aid. There is indeed no educational process which can not be stultified through misuse.

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GOITER PROPHYLAXIS WITH IODIZED SALT

IN the issue of SCIENCE for April 19, 1935, Dr. J. F. McClendon reported the results of goiter prophylaxis with iodized salt as used in Switzerland and the remarkable results after eleven years' trial as reported by Dr. Hans Eggenberger at the Second International Goiter Congress at Bern two years ago.

It is interesting to note that years ago this method of prevention by the use of iodized salt was tried in both Switzerland and France and then given up, owing to the fact that Breuer, Kocher and others came to the belief that iodine might do more harm than good, and cases of iodine hyperthyroidism were described in 1900.

In this country in 1907 Marine and his associates reported that iodine is necessary for the normal function of the thyroid. This work stimulated a trial of iodized salt in this country. McClendon is responsible for considerable knowledge of the distribution of food iodine with special reference to goiter. He, too, has charted the iodine supply in different parts of the states.

In Michigan iodized salt was introduced through the grocery stores by the efforts of the Pediatric Section of the Michigan State Medical Society in 1924. The results in Detroit and Southern Michigan which we have studied are astounding, as viewed from the number of enlarged thyroids amongst the school children and also the number of patients coming to operation for the three types of goiter—colloid, adenomatous and hyperplastic. In 1924 the survey by Kimball in different parts of Michigan showed a very high incidence which has always been endemic here. In Detroit it was not as high as in other parts of the states, but even here there was an incidence of 35 per cent. of enlarged thyroids in the school children. In the eleven years that have passed this incidence has gradually decreased, until now less than 1 per cent. of our school children have enlarged thyroids. After two years with the use of this salt the number of goiter operations in the seven largest hospitals in Southern Michigan began to decline, but the total of all operations performed showed but little change.[1]

The following conclusions are reached from our studies here.

(1) Iodized salt as used in Michigan did at first apparently increase the number of thyroid operations.

(2) The increase was in the nodular goiter or adenoma group, and we believe the iodized salt may have activated a group of quiescent adenomata, producing toxic goiter symptoms.

(3) The increase reached its peak in the second year after the introduction of iodized salt.

(4) An increase in the death rate from goiter as shown by the Board of Health statistics reached its peak in the second year after the introduction of iodized salt.

(5) There was no increase in hyperthyroidism, excepting in the nodular goiter or adenomata group.

(6) The number of operations for toxic diffuse and toxic nodular goiter has rapidly and steadily decreased after the apex of the second year increase had been reached.

(7) The incidence of endemic goiter or enlarged thyroid has been reduced almost to nil since iodized salt has been so widely used.

(8) We now see no cases which show the slightest ill effects from the use of iodized salt.

[1] See "Thyroid Surgery as Affected by the Generalized Use of Iodized Salt in an Endemic Goiter Region—Preventive Surgery," by R. D. McClure, *Annals of Surgery*, 100: 924–932, November, 1934.