were a commercial undertaking it would be in a position to declare a good dividend, although it has to pay many thousands of pounds in rent, rates and taxes. But it is debarred by tradition and by its charter from distributing "profits" and devotes any surplus to improvements in the gardens and the collection and to further scientific work.

The report states that out of the surplus from 1924, after discharging the remaining capital expenditure on the aquarium, a scheme of improvements which will occupy several years has been begun. The first stage was the construction of a large out-door enclosure for hardy monkeys, consisting of rockwork with caves, separated from the public by a deep ditch, on the principle adopted in the Mappin Terraces. Adjoining this there is a small experimental house, in which more delicate monkeys will be given constant access to fresh air, radiant heat and ultra-violet rays from quartz electric globes. It is expected that these installations, which are placed on the ground to the west of the Mappin Terraces, will be complete and in occupation before Whitsuntide.

The next stage is the construction of a new reptile house on the site now occupied by the old ape house and the summer aviaries. This building must be elaborate and costly, but it is hoped that when completed it will be as beautiful and efficient as the aquarium and much in advance of any arrangements for housing reptiles that have yet been constructed. When the reptile house has been completed the present reptile house will be completely transformed to make it suitable for small birds, and extensive open-air aviaries will be attached to it. The final stage of the present scheme will be the construction of a large new monkey house on the site of the present monkey house and small birds' house. It will provide for all the apes and monkeys in the collection, except those sufficiently hardy to live on the monkey hill. In designing it the devices found successful in the experimental house will be adopted.

The report contains a list of the chief kinds of food and the quantities used in feeding the animals. In 1924 the walrus alone consumed 4 tons 15 cwt. of cod. The carnivores used 440 horses, weighing approximately 220 tons. Over 35 tons of herrings and whiting, 1,590 pints of shrimps, 343 gallons of fresh milk and over 14,000 tins of condensed milk, 128 lbs. of honey, 258 lbs. of ants' "eggs," 77 lbs. of mealworms, 150 bunches of onions, 108 heads of celery, 1 ton 17 cwt. of grapes and 213,085 bananas are items which show the variety of the feeding substances required. The total cost of food for the year was £11,637, fuel cost £2,014 and water £1,291.

RIVER SURVEY OF THE UNITED STATES

IT is stated in the *Electrical World* that to comply with the provisions of the new river and harbor act the corps of engineers and the Federal Trade Commission are gathering data as to the cost of a comprehensive survey of the rivers of the country and information which is expected to establish the need for such a study.

There was reason to believe the survey itself would be authorized in this act, but differences of opinion among those most interested in obtaining the legislation prevented that action. The law does provide, however, for a report setting forth the needs for and the expense of such a study. It is known definitely that a very strong report favoring these surveys can be written. While the need has been apparent for a generation, no exhaustive argument supporting such an endeavor ever has been prepared.

General Harry Taylor, chief of engineers, states that his first step in carrying out the mandate of congress will be to call for a report from each of his district officers which will cover the needs of that particular section. This preliminary report will set forth the data obtainable in the files of each office. When these reports have been examined such additional information as may be needed then will be called for.

The Federal Power Commission will confine its work to material which will bring out clearly the need for a nation-wide survey of rivers and streams. Because of lack of engineering data the Power Commission now is compelled to give rights for fifty years without knowing whether or not the proposed power development will fit into the maximum utilization of the stream's resources or the best plan to aid flood control and navigation.

It is not the object of these proposed surveys to go into such detail or to make so careful an economic study as now is in progress on the Tennessee River. That survey alone will cost in excess of $500,000. The idea now proposed is to get an accurate picture of the whole river, the detail to be worked out later as actual development is undertaken.

Congress already has specified its intention to use license fees and rental receipts for these studies. A simple enabling paragraph is all that is needed to make available $250,000 annually for this work. The report which now is being prepared is expected to be so convincing that little further delay will result in securing the necessary legislation.

A COURT OF CHEMICAL ACHIEVEMENT

ACCORDING to an article in *Engineering Chemistry*, chemical products, equipment and processes, in fact, all new developments of American chemistry of the