

## CONSERVATION

# Nations Cooperate To Protect Wild Life in Africa

**T**HE UNITED STATES Government has been invited, through Sir Ronald Lindsay, British Ambassador, to accede to the Convention for the Protection of Fauna and Flora of Africa, signed recently at London.

The conference was participated in by delegates from the Union of South Africa, Belgium, the United Kingdom of Great Britain and Ireland, Egypt, Spain, Abyssinia, France, Italy, Portugal, and Anglo-Egyptian Sudan. Under the terms of Article 17 of the convention, permitting the participation of governments not a party to the original agreement, both the United States and Belgium have been invited to accede to the convention.

Under the terms of the convention the participating governments contract to explore the possibility of establishing within their territories national parks and strict natural reserves. National parks are defined as areas "(a) placed under public control, the boundaries of which shall not be altered or any portion be capable of alienation except by the competent legislative authority, (b) set aside for the propagation, protection, and preservation of wild animal life and wild vegetation, and for the preservation of objects of aesthetic, geological, prehistoric, historical, archaeological, or other scientific interest for the benefit, advantage, and enjoyment of the general public, (c) in which the hunting, killing or capturing of fauna and the destruction or collection of flora is prohibited except by or under the direction or control of the park authorities."

Strict natural reserves are areas "placed under public control, throughout which any form of hunting, or fishing, any undertaking connected with forestry, agriculture, or mining, any excavations or prospecting, drilling, leveling of the ground or construction, any work involving the alteration of the configuration of the soil or the character of the vegetation, any act likely to harm or disturb the fauna or flora, and the introduction of any species of fauna and flora, whether native or imported, wild or domesticated, shall be strictly forbidden; which it shall be forbidden to enter, traverse, or camp in

without a special written permit from the competent authorities; and in which scientific investigations may only be undertaken by permission of those authorities."

## No Hunting by Airplane

The contracting governments agree, under Article 10, to prohibit in their territories the surrounding of animals by fires for hunting purposes. The following methods of capturing or destroying animals also are generally prohibited: the use of poison or explosives for killing fish; the use of dazzling lights, flares, poison, or poisoned weapons for hunting animals; the use of nets, pits, or enclosures, gins, traps or snares or of set guns and missiles containing explosives for hunting animals. The use of motor vehicles or aircraft for hunting also is prohibited.

Consideration also will be given by the respective governments to the establishment around the borders of national parks and strict natural reserves of intermediate zones within which the hunting, killing and capturing of animals may take place under the control of the authorities of the park or reserve. Efforts also will be made to make all national parks areas sufficient in extent to cover, so far as possible, the migrations of the fauna preserved therein.

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## ENGINEERING

## Car of Future Will Have the Motor at Rear

**A**UTOMOBILES, having been built along the same general lines for the past 30 years, will show a complete departure from the present designs by 1936, it was predicted by A. Ludlow Clayden, research engineer for the Sun Oil Company.

"Most engineers," he said, "are now convinced that from the time we first began to manufacture automobiles, we have been building them the wrong way around. In other words, the engine ought to be behind."

This would fit in, he pointed out, with the present tendency toward complete streamlining to which the public

is now rapidly getting accustomed. The applause with which this year's models have been greeted show that a blunt-nosed body tapering gradually to a stream-lined back will be the next step, and the obvious place for the engine is in this "tail" compartment.

The advantages of this design are many fold. Engine noise and odor would be almost completely eliminated, and the best part of the car as far as road comfort is concerned, which is directly between the wheels, would be reserved for the passengers.

## Independent Wheels

Another advance in design comes with the independently slung wheels. This has worked out well as far as it has gone, but the rear wheels are still on the same axle. When these work independently another long stride will have been taken in increasing travel comfort.

New engine and transmission designs, according to Mr. Clayden, will necessitate different properties in lubricants and fuels. With the engine moved to a new position there will be the necessity to economize on its size, and in order to gain proportionally in power the gasoline used will have to have its octane rating increased from the present figure of around 70. That is, it will have to approach more closely the figure of 100 par for 2,2,4 trimethyl pentane, a fuel chosen by chemists as an ideal standard of anti-knock performance.

Where more engine power is to be applied through smaller working parts, excessive pressure lubricants will be necessary. The 1934 car does not absolutely need high pressure lubricants, but when designs travel toward greater forces and lighter parts, some of the heavy-oil pressure principles will have to be applied to light-oil lubrication.

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## ENTOMOLOGY

## Bees Do Not Work Well After Enforced Travel

**B**EES do not like travel—especially when man packs them and ships them about the country to work at pollinating fruit trees, states Dr. A. A. Woodrow, apiarist of the New York Agricultural Experiment Station at Cornell University.

Dr. Woodrow found that the bees brought in in packages do not have the colony strength nor do they fly as freely as bees from established colonies.

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