NATURE RAMBLINGS *by Frank Thone*

ORNITHOLOGY

Oil-Bird

FOR MANY ages man has been accustomed to dependency on animals for converting vegetable sugars and starches into fats for his cooking and oils for his lighting. The hog has been the lard animal par excellence and the tallow candles of our grandparents traced their ancestry to sheep and cattle. To be sure, in certain warmer countries such oils as those of olive and palm contributed to man's wants directly; but in northern Europe fats came via the animal route.

Birds did not figure largely, except where, as among the Jews, hog fat was considered unclean or unwholesome. Hence we have the large use of fat geese in all the ghettos of central Europe, and in all the East Sides of American cities.

In Trinidad and adjacent regions of continental South America there is a cave-dwelling bird, the so-called oilbird, that would be a fair competitor for the goose if it were known in temperate regions. It is a relative of the nightjars and owls, but unlike them is not carnivorous. It is a fruit feeder, flying noiselessly at night in search of its food.

In its two-foot, cheese-shaped nest back in the cave its young are marvelously provided for. So much food do the devoted parents bring home that the nestlings become veritable little oil jars, quilted all over with layers of clear fat. The natives raid the caves and massacre these young birds in large numbers for the purpose of getting this natural oil supply. It is easily tried out, and though its scent is disagreeable to European nostrils is esteemed as a great delicacy. It is also used for lighting.

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ENGINEERING

Engineers to Silence Tires, Mufflers and Power Roar

Noise Problems of Automobiles and How They Will be Solved is Topic at S. A. E. Meeting

MORE quiet for auto users is promised by automotive engineers who discussed the problem of noise in automobiles at the Society of Automotive Engineers annual meeting in Detroit.

"Twenty years ago the use of muffler cut-outs was nearly universal, and the thrill of passing someone was incomplete unless your motor had a louder, deeper roar than his," explained Arthur W. Bull of the U. S. Tire Company. "Gradually, noise which had given added exhilaration to the early motorists became a general nuisance."

Motorists are now worried even by the amount of noise that the tires make. As the car mechanism was improved, Mr. Bull explained, noise was reduced to such an extent that tire noise became noticeable at speeds below 40 miles per hour. At higher speeds, wind noises were sufficient to mask tire noises. Now with streamlining becoming more complete, it is necessary for engineers to reduce tire noise at the higher speeds.

With the use of phonograph records, Mr. Bull demonstrated noise that originates from impacts of the tread against the road, noises due to road surfaces, such as the characteristic noise when running over brick pavements, and a low buzz or flutter due to the trapping of air in parts of tires.

The problem of eliminating tire noise is complicated by the fact that some car owners with a musical ear like to hear the low hum which gradually rises in pitch as speed is increased. It serves as a simple and quite accurate speedometer and an aid to maintaining constant speed.

Noise in auto mufflers can be eliminated in two ways, by sound wave absorption and sound wave cancellation or interference, E. G. Gunn of Racine, Wis., told the engineers. In mufflers which absorb the sound, the second energy is converted into heat by resonators, sound absorbing chambers, by friction of the waves passing through small holes and the use of porous material. The trick of mufflers that depend on wave interference consists in getting one part of the sound out of phase with the other so that they interfere or cancel each other. One new muffler passes part of the exhaust gas through a venturi tube and thus creates low pressure which can be used to operate the windshield cleaner, horn, or fuel system.

"Power roar" or intake noise, which is sometimes objectionable in certain automobiles, can be conquered by a silencer which utilizes both resonance chambers and absorbing materials, J. O. Almen and E. E. Wilson, of the General Motors Laboratories, reported.

Automobiles can be made quieter vehicles to ride in by padding their bodies with sound absorbing and insulating material in much the same way that the acoustical properties of radio studies and other rooms can be improved, Theodore M. Prudden, of the Pacific Mills, told the engineers. One result of making automobiles quieter, Mr. Prudden explained, is that the driver often increases speed without realizing it.

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ORNITHOLOGY

Woodpeckers Steal Wasps' Nests to Store Acorns

STOLEN, by bold, bad woodpeckers, a lot of mudwasp nests. It happened in San Diego County, Calif.

California woodpeckers have a habit of drilling tree trunks, house rafters, fence posts, etc. full of holes and then wedging the long, pointed liveoak acorns into them for storage.

In the adobe walls of an abandoned Indian hut, the woodpeckers first riddled the rafters and stuffed the holes with acorns. Then they moved on down the adobe walls and coolly filled the open burrows of a colony of mudwasps that had built their nests in the sun-dried mud bricks. Approximately 120 wasp nests were counted on one corner of the house, and of these over half had been taken over by the woodpeckers.

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