

• New Machines and Gadgets •

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⚙️ **SUPER SWEEPER** takes in a 66-inch swath at once. Made of steel tubing, the sweeper's side pieces extend to form two handles at a convenient operating height. The mop part of the frame is in a form of a wide, flattened "V." A washable apron to catch and hold debris is attached.

Science News Letter, February 8, 1958

⚙️ **AIR-OPERATED VACUUM CLEANER** can be used as a dry pick-up or to handle volatile liquids and solids. Made of nonferrous metals, the cleaner operates in the absence of an electrical spark for added safety. Special fittings are available.

Science News Letter, February 8, 1958

⚙️ **ULTRASONIC CLEANING BATH** is designed for small components and precision piece parts. Hot solvents can be used in the British developed equipment. The transducer or ultrasonic wave-producing unit and fluid container are contained in a water jacket.

Science News Letter, February 8, 1958

⚙️ **FLYING SAUCER HORSESHOES** make up a new game for young and old. The game, shown in the photograph, consists of four plastic disks and two wooden stakes, each with a length of rope attached



for accurate measuring and scoring. The stakes are set 30 feet apart and players, singly or in teams, throw the saucers as near the stake as possible.

Science News Letter, February 8, 1958

⚙️ **RUBBER-PLASTIC BLEND** is designed for small boat construction. The combination material is described as being strong, impervious to rot, rust, worms or

corrosion, shock-absorbing, and washable with soap and water. A boat made from the material cannot sink when swamped.

Science News Letter, February 8, 1958

⚙️ **NON-DRIP TAP** is designed to last longer than conventional taps, without developing leakage. A British device, the tap has been fitted with seatings tipped with agate. It is said to resist the pressure of water, as well as all acids and alkalis.

Science News Letter, February 8, 1958

⚙️ **INDUSTRIAL TILTER** lifts, tilts, or rotates all kinds of open or closed drums, barrels, fiber containers and boxes. Designed for one-man operation, the tilter is rated at 1,000-pound capacity and weighs less than 50 pounds. It is available for 55-, 30- and 15-gallon drums.

Science News Letter, February 8, 1958

⚙️ **RUBBER EXPANSION JOINT** takes the thump out of roads. The highway or runway joint permits up to three inches of contraction or expansion while keeping the rubber flush with the surface. Anchored between road sections, the joint is about 13 inches wide and extends the width of the highway or runway.

Science News Letter, February 8, 1958



Nature Ramblings



By HORACE LOFTIN

► "ONCE UPON A TIME, there was a big bad wolf!"

Or if not a wolf, then a ferocious wildcat, a hungry bear, a sly weasel or mink, or a wily raccoon to play the "villain" in the animal world. These are all members of the great order of flesh-eaters, or Carnivora, among the mammals.

Aside from their taste in food which won their name for them, the carnivores have a combination of body structures which separates them from all the other mammals. Many of these characteristics are concerned with their diet of flesh. Probably most typical is their excellent set of dining utensils, the teeth.

The teeth are of three sorts, incisors, canines and molars. The canines, or "dog-teeth," are often long and dagger-like, and their utility in winning a meal is obvious. The incisors are sharp tools for cutting into flesh, while the molars grind and crush.

The Meat-Eaters



One or more of the molars have prominent cutting edges, the "flesh teeth," a mark of the carnivores.

The digestive tract of the meat-eating mammals is simple, straight and short, when compared to that of the grass-eaters or herbivores. An explanation for this is obvious: flesh is generally much easier to digest and absorb than is vegetable matter.

The brain of the carnivores is well-con-

volved, with the cerebral hemispheres having distinct fissures, characteristics associated with a high level of animal intelligence.

Most of the meat-eaters walk on the whole foot, in contrast to animals like the deer which essentially walk on tiptoes. There are always at least four free digits on each paw and sometimes five.

There are five families of Carnivora found in North America: the dogs or Canidae, the cats, Felidae, the bears, Ursidae, the raccoons, Procyonidae, and the minks, Mustelidae. These range in size from the great Kodiak bear, weighing some 1,000 pounds, to the pygmy weasel of about seven inches in length!

Carnivores are found naturally throughout the world except in Antarctica, Australia and New Zealand. Where they are native, nature has worked a nice balance between them and their prey. But where nature has been circumvented by man, as in the introduction of carnivores to Australia, disaster often results to all concerned.

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