SCIENCE SHORTS

A miscellany of happenings and information in various fields the world over

The United States accounts for five percent of the world's annual commercial fish catch.

Massachusetts took its first population census in 1765, 15 years before the Commonwealth was officially established.

A February census of *Roos's geese* on their California wintering grounds reported 30,400 of the small birds once mistakenly thought to be in danger of extinction.

The grizzly bear is virtually gone from most of the United States, remaining only in a few areas such as Yellowstone National Park.

Continuous, steady driving even at relatively low speed, is likely to get a person to his destination faster, and more safely than spurts of speed interrupted by dangerous stops and starts.

Emphysema incapacitates one of every 14 wage earners between 45 and 60 years old.

Yearly Social Security pension *expenditures* for chronic respiratory diseases exceed \$80 million.

Geologists surveying several Mediterranean and Middle Eastern countries will use remote sensing techniques to collect data on dry lake beds for natural landing areas.

Since the first reported case of congenital indifference to pain was made known in 1832, less than 50 such cases of lack of sensitivity have been diagnosed.

Crossbred yearling rams lived 20% longer than purebred Hampshire and Suffolk rams in tests in Glenn County, Calif., but the mortality of all the yearlings was a high 82% before the fifth breeding season.

Commercial power production at the *Hoover Dam* on the Colorado River began 30 years ago.

Chicken and turkey feathers contain 85% protein and are ground into "feather meal" to be used as a high-protein supplement in poultry feeds.

A total of 34,827,066 hunters and fishermen in the United States spent a record \$138 million on licenses and permits during fiscal 1965.

Dairy scientists are trying to deter-

mine the reason why some white Italian cheese occasionally turns out to be pink.

In Switzerland in the early 17th century, the nuptial bond between royal families was culminated when the bride and groom broke a *pretzel* as they would a wishbone, the one with the largest piece supposedly getting his wish for their happiness.

India's Southwest *Monsoons* account for about three-fourths of the country's annual rainfall.

The physical bulk of braille literature is reduced by half using rotary machines that print solid plastic dots instead of traditional, hollow ones.

Prescription pharmaceutical manufacturers are the largest industrial employers of health-related research workers in the United States, employing 16,400 persons in 1965.

In an electric eel's tail, 5,000 to 6,000 voltage-generating cells, each with a capacity of .1 volt, generate electricity equal to 500 to 600 volts.

The fastest continental freight train in the United States, the Blue Streak Merchandise, travels from East St. Louis to Los Angeles, 2,452 miles, in 50 hours and 30 minutes, averaging 49 miles per hour including stops.

The Soviet Union has set *tea* self-sufficiency as one of its long range agricultural goals.

Greek smokers purchased a record 31.2 million pounds of *cigarettes* in 1965, an increase of nearly five percent from the 29.8 million pounds in 1964.

The U.S. Government is reopening its weather station on Ice Island T-3 floating about 350 miles north-northeast of Point Barrow, Alaska.

Fossil records show that *camels* existed in Africa and Asia three million years ago, but new fossil finds suggest camels were in North America 40 million years ago.

The large herds of fur seals that live off the Pribilof Islands, outside the Aleutians, were almost extinct until the close of the 19th century when they were protected by the United States after it bought the islands from Russia.

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Waste Management

(Continued from p. 488)

ual local and state governments. It is too easy to move to the other extreme and say that, because air and water cross state lines, all criteria, standards and enforcement with respect to pollution must be Federal. In fact, all levels of government—Federal, state and local—must play a role. Our concernhere is for industry to take the initiative itself so that a minimum of jurisdictional control at any level is necessary.

It comes as a bit of a shock but we must get the word "consumer" out of our industrial vocabulary. The industry must re-consume its own residues after the "user" is finished with it. If American genius can mass produce automobiles and work out a magnificent distribution plan, cannot American genius, on a private enterprise basis work out collection, mass disassembly and reuse?

The trite reason always given for not doing so is that it is not economical, but the fact is that people are now paying staggering amounts for inefficient waste collection that does not even half solve the problem. If we close the loop from user back to the factory, the costs of waste management which are now hidden would be part of the cost of using and, I suspect, would be far less than what we pay today.

Closing the loop in this way is an

Closing the loop in this way is an entirely new industrial concept and will mean vast changes in original design, not only for marketing appeal and usefulness but for disassembly, reprocessing and reusefulness.

Basically, under this system, we would not be buying anything—we would be renting it. But when you think it over, this is not so different from what we do today with rapid obsolescence. The overt increase of rental systems is an indication that this is acceptable procedure already for users.

Waste collection, the reuse of waste as a resource, is an industrial activity that must grow. Whether it grows healthily in the private sector or whether government takes it over depends on what action your industries take.

The manufacturers' traditional job and successful enterprise has been through supplying people with the things that contribute to the "ease" of their living. A filthy environment loaded with the discards of ease causes "dis-ease"—sometimes in the physical sense, more than likely contributes to mental disease, but unquestionably to the larger definition of dis-ease as opposed to ease. Manufacturers must increase the scope of their job and consider what happens to their product after use—if you do not do it yourselves, government will do it by default.

Furthermore, with growing social consciousness, things that were luxuries, yesterday, rapidly become the human rights of tomorrow. And just as education has become a human right, so will the luxury of living in a decent environment.

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