

that are attached to each other in as few places as possible. The fewer the attachments for supporting the inner layers, the less sound transmission there will be. With no connections, you can lose 45 decibels through the use of a one-half inch plaster-board double wall.

What about the noise inside these barriers? Sound absorption must be relied on. Already in almost every room the materials used for furnishing and the people themselves absorb some of the sound. Adding a sound-absorbing material to the ceiling may not reduce the number of decibels of sound much more.

However, a small reduction in decibels may seem like a much larger reduction in loudness to the ears of the people who have to work with the sound.

Acoustic materials can also be used for controlling the reverberations of sound in a room. This can be overdone, so that the room is said to sound "dead."

The National Bureau of Standards has been experimenting with what they call space-absorbers. These are geometrical forms such as spheres, cubes, cylinders and pyramids. They are hung from the ceiling at various points in space in the room.

It has been found that these are much more efficient than the same amount of material applied to a flat wall because that side of the material facing the wall is useless. They are useful where not enough sound absorption can be achieved on the wall surfaces.

A special adaptation of this principle is in jet engine test stands. Honeycomb structures made of sound absorbent walls or streamlined baffles placed in the exhaust stacks cut down the noise considerably.

Architects are now considering noise levels when they begin drawing their plans and deciding construction methods.

Science News Letter, April 5, 1952

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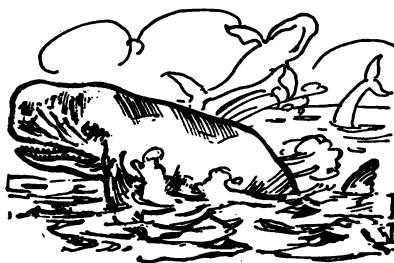
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**Whales**

► WHEN WE get to talking about the biggest animals that ever lived, we are apt to forget that they are still living.

Dinosaurs are what our minds jump to or mammoths and mastodons; but the mammoths were pygmies compared with the dinosaurs that roamed the earth long before their time, and the dinosaurs would have to yield first place for size to the modern whales.

The humpback whale is credited with a length of 60 feet, the right whale with

70, a chalong with 80, while the blue whale has been known to reach a length of 85 feet.

Such size, of course, would be impossible to a land-dwelling animal. Whales can make it because they are supported on all sides by water, which is somewhat more dense than their bodies, and therefore takes up much of the burden that would have to be borne by bone and muscle and skin in land animals.

Whales are excellent examples of what adaptation to an environment can do to animals. They are mammals, warm-blooded animals that presumably once lived on land. But having taken to the water and lived there for many generations they have developed streamlined, fish-shaped bodies so perfectly that earlier generations naively classified them as fish.

Thus it came to pass that popular imagination saw the "sea monster" or "great fish" of the story of Jonah in a whale, and has been wrangling about the size of the whale's gullet ever since. And even the great Milton attributed to the whale a "scaly rind" as though it were a fish.

Whaling today is such a science that many of the heretofore unknown intimate details of the life histories of whales are being uncovered. But for the ordinary person who may not often get a chance to see a whale, even one stuffed in a museum, many restaurants throughout the country are now serving whale steak.

Science News Letter, April 5, 1952

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