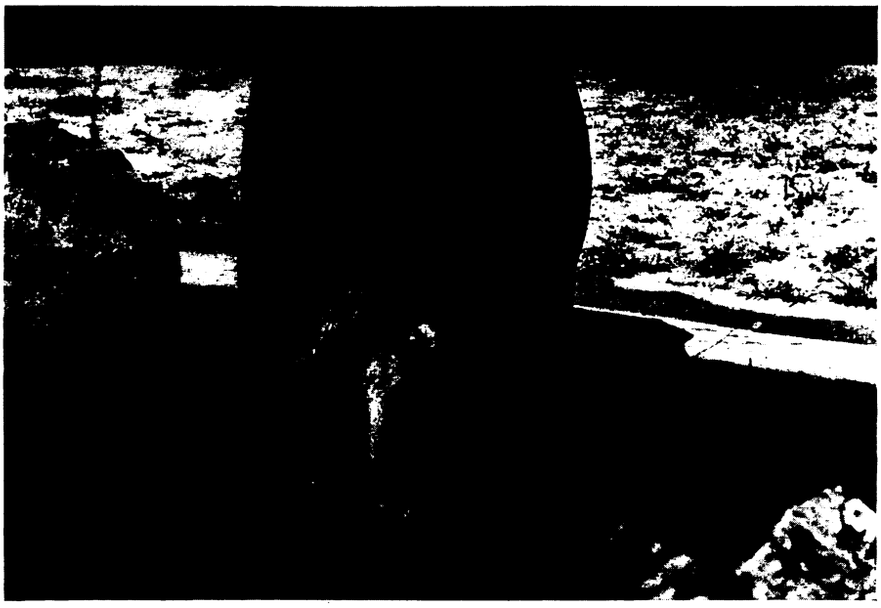

PROTECTED

This bathing beauty who is a resident of the National Zoological Park in Washington doesn't need to worry about his sinuses when going into the water. The hippopotamus, like most aquatic mammals and birds, has anatomical provision for closing his nostrils to keep water out. This is shown in the illustration on the front cover which shows the same animal swimming. In the close-up of Mr. Hippo the nostrils are safely closed.

He made some tests with expert swimmers and divers who volunteered to help him find what effect the style of breathing and swimming had on keeping water out of their noses. He found that quiet, face-down floating is most effective in preventing water from getting into the nose. Neither nasal nor mouth exhalation keeps the water out. Feet-first diving, repeated diving and back-stroke swimming are the worst for getting water into your nose. He verified these findings in tests with a glass nose which he pulled through the water in the various positions of diving and swimming.

"These findings were substantiated in another and more significant way," he reports. "Two of our volunteers had stuffy noses and a watery drip for several hours, and one other complained of a full head and an ache above the left eye following the diving sessions. We noticed that J. L. hopped around after most of the tests, trying to dislodge the water that had found its way into the middle ear by way of the Eustachian tube."

Breathing exclusively through the mouth while swimming and diving has most recently been advised for keeping water out of the nose. Not even this is entirely successful, Dr. Mezz declares. Tests made with expert divers showed that though they may think they are holding air in their lungs while they dive ready to expel it under water, they "really do no breathing during the dive and pierce the water with surprisingly little air left in the lungs."

Most of it is lost in the effort of the dive. Enough is left, apparently, to create a positive pressure that prevents water getting into the nose as the diver plunges into the water, but there is not enough air in his lungs and breathing passages to keep the water from getting in during the under-water and breaking-water phase of the dive.

The answer to all this, in Dr. Mezz' opinion and that of other doctors, is something that will substitute for that lost nostril-squeezer muscle and completely block the water from the nose. Cotton plugs, adhesive tape straps and even clothes pins have been used. Most satisfactory, in Dr. Mezz' opinion, is a rubber covered, spring-steel nose clip with an elastic band to hold it around your head, or around your neck, when you are out of the water.

Science News Letter, August 9, 1941

Iran is attempting to grow *rubber trees,* hoping for commercial production.

An explorer who turned on short wave radio programs for *Amazon Indians* reported that the Indians liked classical music but thought jazz ugly.

PHYSIOLOGY

Nostril Closing Found Not So Rare as Believed

THE TRICK of closing one's nostrils when diving into the water is not a completely lost human accomplishment, despite medical opinion.

One of the leading physicists of the National Bureau of Standards Dr. L. B. Tuckerman, upon reading the Science Service article telling how animals can shut their nostrils to protect their sinuses while people can not, made known that in childhood he had recaptured this ability supposedly lost in the evolutionary process.

"Some of the boys who went swimming together when I was young heard about how hard it is to wiggle one's ears and make the muscle, compressor narium, close the nostrils." Dr. Tuckerman explained. "So we practiced faithfully until several of us could do both.

"I can still do both. When I dive today I always close my nostrils."

Doctors advise that water be kept out of the nose, ears and sinuses particularly if the swimmer has had sinus or ear trouble. Diving or underwater swimming forces water into these parts of the human anatomy, unless they are proteced. Infections may thus be spread. Use of a nose clip is recommended by those who can not close their nostrils naturally.

Convinced that the ability to use the compressor narium muscle was not exceedingly rare in human beings, Dr. Tuckerman made inquiries among some of his fellow scientists in his section of the Bureau of Standards and found one other person who, while he could not quite close his nostrils enough to stop completely the passage of air, could close them sufficiently to keep water out of his nose while diving.

Science News Letter, August 9, 1941

A botanist reported that in five years he pulled 37,639 *weeds* from a plot of ground ten feet square.