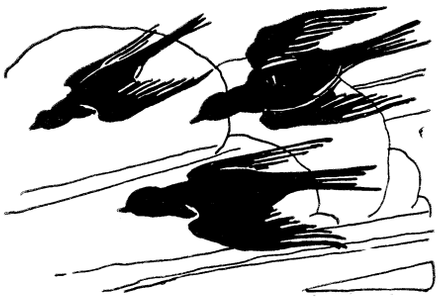
ORNITHOLOGY

NATURE RAMBLINGS

by Frank Thone



Ready to Fly

➤ MOURNFULLY melodious, the old song tells us:

"The swallows are making them ready to fly,
Wheeling out on a wintry sky."

Actually, swallows and a great many other birds "make them ready to fly" long before the sky becomes at all wintry. Those huge, twittering, circling flights of swifts and swallows at sunset on late summer days; the great, noisily talkative parliaments of blackbirds; the smaller, clubbier assemblies of many other bird species, are all parts of their pre-migration behavior patterns. They aren't starting south just yet, but they're "thinking about it." Some morning they'll be gone, though most of us are so little observant that we do not miss them until practically the whole summer bird population has slipped away.

So quiet is the migration of most smaller birds that it long remained one of the most mysterious phenomena of natural history. The ancient Greeks are said to have believed that swallows did not fly away at all, but buried themselves in the mud at the bottom of ponds, hibernating there with the frogs and turtles. Even in modern times, a great deal remains to be learned about these long seasonal flights.

One very curious effect on the winter bird populations of North America is produced by the triangular shape of the continent. Eastern and western species belonging to the same large groups but zoologically quite distinct are often funneled into the same close quarters in Central America and southern Mexico. Ornithologists making winter field trips to those regions often find birds in the same tree that in summer would not be closer together than Michigan and Oregon.

The question might arise, why do not these related species become hybridized? The answer, of course, is that in winter they are concerned only with feeding and keeping away from the cold, not with nesting and rearing young. In spring, they fly their several ways back to their widely separated breeding grounds. So the species remain distinct.

One of the outstanding riddles that still haunts ornithologists is how the birds learn their way south. Older birds, that have made the journey before, might be credited with remembering the route. But in most species, the young of the year start first, and they find their way to the winter feeding areas just as accurately as if they had experienced guides. That's something for students of bird behavior to work at for a while.

Science News Letter, August 25, 1945

CHEMISTRY

Processed Cream Kept Fresh, Tasty, for Year

➤ PROCESSED cream will be fresh and tasty after being kept at room temperature for a year or longer, thanks to a new method which sterilizes the cream. So far used exclusively in the production of processed table cream and whipping cream for the armed forces overseas, the new method recently announced results from six years of research by the California Milk Products Company, Gustine, Calif.

Only four minutes is needed to process the product, known as "Avoset." Instead of being pasteurized (unsuitable for such a process because it does not kill all bacteria) which requires that the cream be heated at 145 degrees Fahrenheit for 30 minutes, the mixture is preheated and sterilized at temperatures varying between 260 and 280 degrees Fahrenheit for about four minutes.

Prior to processing, a small amount of vegetable "stabilizer" is added to the sweet, fresh cream, to keep the milk solids in the finished product from separating out on long storage. After sterilization, the mixture is rapidly cooled and passed into a sterile holding tank, ready for bottling.

Air in the bottling and capping room is kept virtually free of dirt and bacteria by the Precipitron, an electrical air cleaner, developed by the Westinghouse Electric Corporation.

Science News Letter, August 25, 1945

Cacti found outside the Americas, Ceylon, Madagascar, and the Congo, have been taken there by man.

Because of its great weight confined in a small space, *lead* is used in factory lift trucks as a counterbalance to the load which is usually picked up and carried on racks or a platform in front of the truck.