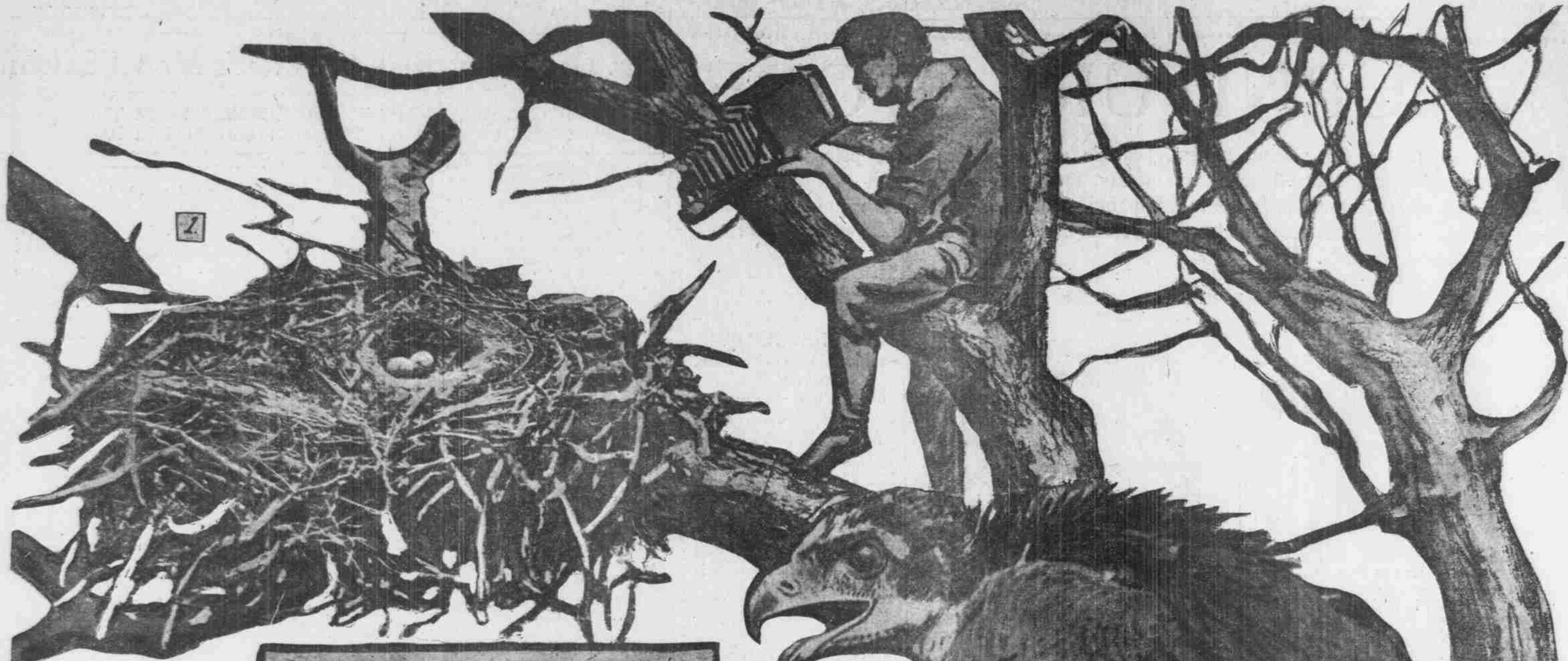


PHOTOGRAPHING GOLDEN EAGLES FROM EGG TO FULL FEATHERS

BY WILLIAM L. FINLEY, OF PORTLAND, WITH PHOTOGRAPHS BY HERMAN T. BOHLMAN



PHOTOGRAPHING eagles in their native haunt, collecting a series of home life pictures of these lords of the air from egg to full feathers—this was a bird lover's dream for years—a feat hitherto unaccomplished by the most adventurous photographer, a study never carried out by the most enthusiastic ornithologist.

What do the pictures represent? Three months of patient waiting, varied by six long mountain trips in Santa Clara County, California, from civilization back to the aerie near the summit of a rock-strewn ridge; rides of 30 miles on the train, from Oakland, and backaching tramps of ten miles up mountain trails with a heavy camera equipment; the snapping of over a hundred 1x7 plates exposed at every available view of the stronghold from terra firma to trestop.

Did the old eagles show fight? Is the first query put by the casual listener. I always see a trace of disappointment sweep his countenance when he hears the answer. The moment you speak of climbing to an eagle's aerie, the average person gets an idea of a harrowing tale of the photographer hanging to the ledge of a cliff or the top of a tree with the old eagles clawing out pound chunks at every swoop. But few eagles possess the mad fierceness pictured and magnified by sensational storytellers.

When I first scrambled over the boulders of the canyon up toward the west, I saw the old eagle slip quietly from her eggs and skim out over the mountain top. When I strapped on the climbers to ascend the aerie, I had one eye open for trouble. In fact, I carried a little gun in my back pocket, and it was loaded. But in the six trips I made I always saw the parents silently disappear and stay away as long as we cared to hold possession. They kept a watchful eye, however, from the dim blue distance overhead.

For a noble bird like the eagle, this abandoning the nest seemed to me cowardly at first. Why didn't she stay and show fight? Had I been an animal without a gun she might have protected her young. Perhaps the long years of persecution have taught her something. Life to her was not the mad struggle against a stronger foe. Her first rule of self-preservation was to keep half a mile distant from the animal with the far-reaching, death-dealing weapons.

Two Species of Pacific Coast Eagles.

There are two eagles that inhabit North America, and both are found on the Pacific Slope. The white-headed or bald eagle is found in the northern section, while the golden eagle lives in the southern and eastern portions of Oregon and California. Both birds are about three feet in height, and have a wing spread of six or seven feet.

The nesting places of the eagles are generally in some large tree high up on the slope, where they can command a wide outlook. In mountainous regions where good cliffs are available they will sometimes select a protruding shelf of rock. I have never heard of an authentic case of an eagle fighting for its nest where the aerie has been placed in a tree, but occasionally cases are reported where these birds have fought fiercely when a nest placed on a cliff is disturbed and where the eagles have a clear chance of swooping.

The First Trip.

The 25th of last March we boarded the south-bound train and landed in a fertile hilly district. With our cameras strapped to our backs we scudded along on wheels the first few miles of rolling country, but we piled our vehicles in the brush about sun-up. The Spring rains had not yet ceased. The season was at its height. The grass covered fields were soft and springy under foot. The delicate earthy odor breathed gently up and the nostrils failed not to take eager note of it. The air seemed fluent as mercury, and vibrated at every sound or motion. Down every little gully the water gushed with a low sucking lash. A band of red-wing blackbirds held a lyrical carnival just down the hill, where the lush grasses thrived. A flock of pipits flushed, hitting te-chur! te-chur! up the hillside. Meadow larks piped, hummers flashed about the new-born flowers, and bluejays squawked in defiance. As we ascended out of the pasture land and crossed into the canyon, we found few trees except the snaggy live-oak

and the smooth sycamore, just leafing out along the canyon bed.

Two miles up, the mountain top breaks abruptly off into the head of the canyon. Here a large sycamore is rooted in the bed of the little streamlet. From the giant roots four good-sized trees sprang. On the branch bending out valleyward above the steep rocky slope the eagles had carried a small cartload of limbs and sticks and worked them into the forks, where they branched horizontal to the ground. This was indeed a fitting castle for the ruler of the ridge, for from the outlook he surveyed the whole valley below, and there was not a path of approach that his sharp eyes did not command.

Climbing one of the other forks of the tree, the photographer put up a tiny platform in the topmost branches, where the camera was fastened and aimed downward at the aerie 20 feet away. From this point of view the pictures of the first two trips were taken, showing the two eggs and the downy young just after hatching. When the eaglets were older, the photographers climbed the nest tree with their cameras and took views from nearer points of interest. To be sure, the fledglings resented my company when I climbed into the nest, which was five feet across, and planted my camera right beside them. But at that time they were not strong enough to offer effective resistance; they could not help being imposed upon. But they endured silently, laying up wrath for their days of strength, when they could strike a blow that brought blood.

Scientific Value of Pictures.

Such a series of pictures has the scientific value of showing the eagles in their various stages of development. It gives the exact data of just how long it takes an eagle to rear its brood, from the time the egg is laid till the birds leave the nest.

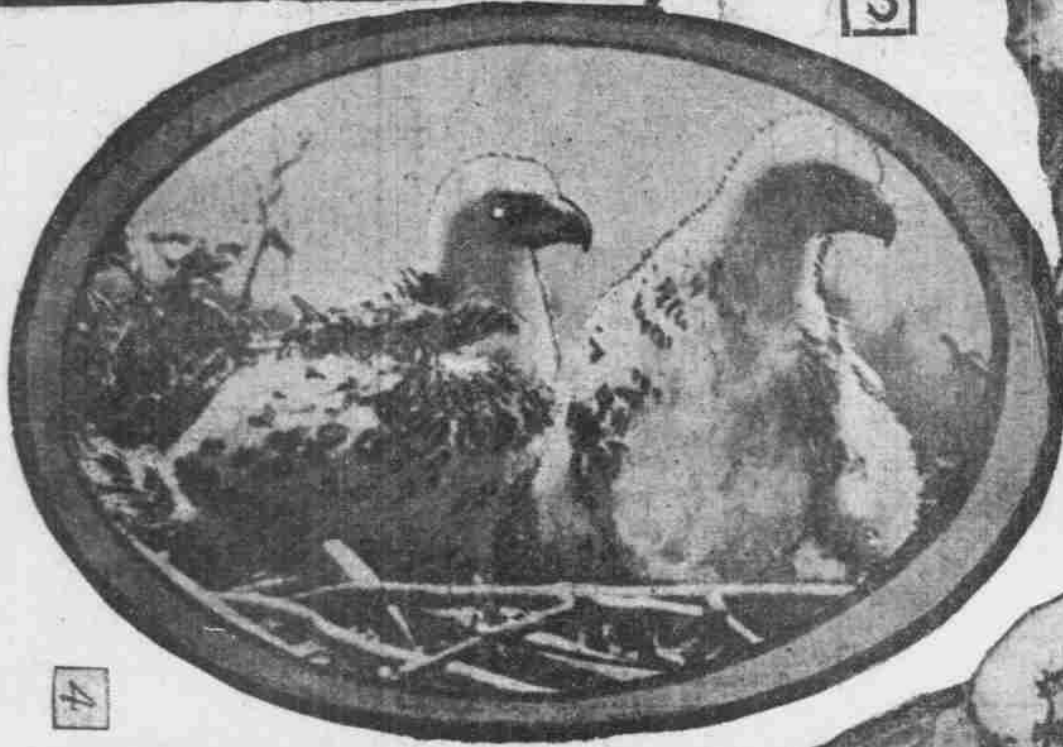
Later in the season I made a careful study of the nesting habits of one of the finches to serve as a comparison between the small seed- and insect-eating birds and the largest birds of prey. The dates will give the reader an idea of what a difference there is in the growth and development of birds.

I found the finch building its nest last June and watched it closely. The home was lined and completed the 24th of the month. It contained three eggs the 27th. July 5 the eggs hatched, and the young were able to leave the nest on July 18. In other words, it took 19 days for the finches to hatch the eggs and rear the family, or about four weeks to build a nest and send forth a new nestful of birds into the world.

How about the eagle? The same aerie is used year after year, the fiercest storms of winter do not affect it, but each season a new lining is added. Two dull white eggs are laid, generally marked with brown blotches. These were laid the first or second week in March, just as the sycamore was beginning to leaf out. The period of incubation lasted almost a month, for the eggs were not hatched till the first week in April. The eaglets were covered with soft white down soon after hatching. White is not the color for a hunter, but these downy garments lasted for a full month, during which the youngsters grew from the egg to the size and weight of a large-sized hen. The first week in May black pin feathers began to push up through the down, first appearing on the wings and back. Week after week the stiff black feathers grew, but they



2.



3.



4.

1. Photographing the Aerie.
2. Eaglets in the Down.

3. Sprouting Pin-feathers, two weeks later.
4. Two months old, almost in Feathers.

came slowly, covering the back, wings, head and neck, until by the first week in June they were well clothed in a fine bristling suit of dark brown and black, except a small white "shirt front," but even then the birds were young and weak and it required almost another whole month for the feet and feathers to grow strong enough so the bird could handle its heavy body. So where the finch required only four weeks to rear a family, it took the eagle a good four months, or a third of the year.

Savage Spirit.

The eaglets revolted at human interference. They opened their mouths in defiance when I first looked over the nest edge. Nor were they one whit less ferocious from all my visits. They would eagerly have rended the hand to shreds that dared touch them. Yet I could easily have taken the nestlings into captivity. But one look into those deep-set, black eyes showed a nature primordial in its wildness. Those eyes had a piercing glare, that seemed always peering longingly into the far away blue of the distance. There was a savage spirit, that could no more be curbed by human hand than could the structure of the bill and foot be changed. The elemental wildness was pent up in the egg that came from the mother's body. It was the real king of all birds that left the aerie never again to be touched alive by the hand of man.

WILLIAM L. FINLEY.

More Animals Being Exterminated.

Another wild animal has been almost exterminated by fur hunters. It is the beautiful Satan ape of New Guinea, which once was so plentiful in the forests there that travellers told how almost every tree bore its load of handsome monkeys.

The beauty of the Satan ape was its

down. Its wonderful shining fur, composed of immensely long silken hair, became popular for furs about 12 years ago, and at once fur hunters penetrated the wild home of the monkeys to supply the markets of Europe.

In 1922 the Government figures showed that 17,000 skins had been shipped in that one year. Within two years so many monkeys had been killed that only 57,000 skins were exported in 1924. In many places the forests are absolutely lifeless now, and it is calculated that there will be no Satan apes left at all in a few years.

The white heron, although it still exists in great numbers in certain parts of South America is doomed, like the monkey, for \$100,000 worth of skins are exported annually from Argentina alone, while Venezuela sends out about \$50,000 each year. It has been estimated that in the worst years of plume-hunting in Florida the annual slaughter of these grand birds amounted to one and one-half millions in a year.

The beautiful humming bird is another victim of the feather hunter, and it is only a question of time before this tiny creature will cease to dazzle the traveller even in the deepest forest, for there is no place where it can escape the hunter. In London alone the weekly sales of the ruby and emerald skins of the wonderful bird amount to \$50,000.

High Places Affect Watches.

It has been found that watches and clocks cannot withstand the effect of great heights with perfect immunity any more than human beings can. Like them, they suffer from the change in the air pressure. A watch taken to the top of Mont Blanc will gain 36 seconds in 24 hours. The thinness of the air, with its decreased pressure, makes the poor watch dizzy and leads it to run faster, just as a man's blood runs faster. Watches will change a little even when carried from the lower floors of a house to the higher ones, although the variation is too slight to be considered for practical purposes.