tempted to fly up and over Harrison's Pass which is a thousand feet high and very steep. It flew up by degrees in a zig-zag line, stopping on the rocks at each turn.

"July 18, 1901. Found Leucotictes on the top of Mt. Whitney, 14,500 feet. They hop along the ridges between the furrows of the snow. Noted them often at this date about the small lakes in the snow in groups of four.

'June 2, 1902. Found on top of Mt. Lyell above Yosemite.

"July 10, 1902. Found at Bullfrog Lake, 11,000 feet, and on top of Mt. Gould, 13,800 feet.

"Of all birds the Leucosticte has ever had a fascination for me, but in all my travels I never succeded in finding a nest."

AN IRRIGATED RANCH IN THE FALL MIGRATION

By FLORENCE MERRIAM BAILEY

E ONCE spent the first two weeks of September on an irrigated ranch in southeastern New Mexico, and, while the study of the prairie-dog problem had taken us there, we saw many interesting things in the bird line in passing. As the ranch combined alfalfa and stock, outside the branding corrals stood mowing machine and baling press, while the adobe houses of the Mexican laborers stood in the background. Behind the house, water barrel and wood pile—a pile of grubbed-up roots as big as a haystack—spoke of the waterless and treeless character of the valley; but leafy rows of cottonwoods growing along the irrigation ditches, and the vivid green alfalfa fields, gave richness to the immediate landscape.

From the piazza, as we lookt out on the highroad, the principal passers-by were Mexicans. Sometimes there would be a prairie schooner drawn by four burros, on one of which rode a small bare-legged Mexican shaded by the inevitable peaked hat, energetically whipping up his burro train. Sometimes there would be six burros, three abrest; and frequently the load would be of mesquite roots surmounted by a Mexican.

When we first got to the ranch the stock was being branded in the corral, and, as we past on our way back and forth to the dog field, the fire in the middle of the circle, the men with long branding irons making sudden lunges at the terrified cattle as they circled around the ring, the bellows of pain, the headlong plunge of a maddened steer at his tormentors, and the circle of Mexican on-lookers percht safely on top of the high corral fence, all made a sight that we were glad to leave behind for the peaceful, green alfalfa fields.

The irrigation of the alfalfa was a novel and most interesting sight to me. The irrigator was a tall, spare Mexican with a picturesque high hat, purple shirt and red sash, carrying over his shoulder a long shovel. When he had turned the water into a field he would take off his sash, throw it over a fence post, roll his trousers high on his brown legs and then wade about among the ditches like a plover, letting the water out here, banking it in there, hurrying from place to place till he seemed to be everywhere at once. When a sluice had to be opened or shut in a distant field he would catch up his sash, noose it around the nose of a horse he kept near by and, with the shovel over his shoulder, go swinging off bareback, with the grace of a centaur.

The water from the ditches strewed the fields with multitudes of minnows that

attracted great flocks of migrating water birds: sandpipers of all sizes and kinds, from the greater yellowlegs-darting, dashing, noisy yellowlegs-to the modest, quiet little sandpipers—bairdi and minutilla—plover, willets, handsome black-neckt stilts, and long-billed avocets and curlew, one with the bill turning up, the other One meadow was irrigated at a time, and so a field that was all water, white wings, and a babel of bird notes one day, would be dry, bare, and silent the next, the procession having followed the man with the shovel. I wanted to follow too, for the sight of acres of water birds was always fascinating. The delicate gray and white forms of the wheeling flocks against the background of blue sky made a rarely beautiful sight, and with the sky for a background and the water for a mirror the birds were always making charming pictures. One of the rarest we saw was that of a delicate red sunset mirrored in a flooded field, in which white water fowl were wading. What a picture from the hart of the New Mexico desert country! A flock of nearly fifty long-billed curlew was seen one day; and at another time half a dozen of the large sickle-billed birds were found in a field surrounded by a restless evershifting throng of yellowlegs and other sandpipers. The liquid quality of the water-birds' notes, spoken of by Frank Bolles, was especially striking here when from an adjoining field came the dry land notes of sparrows.

When a bird-catching falcon flew over, one and all of the white wings rose in terror; but a grasshopper-catching Swainson hawk might sit on a fence-post overlooking their field, or even fly down in it after his catch, and they would barely recognize his presence. Marsh hawks were often seen beating low over the alfalfa making dives with sprawling wings as they spied—was it a mouse or a cotton rat?—and once we saw one standing in the midst of a field, apparently watching for grasshoppers, his queer ruff-encircled face looking strikingly owl-like.

Wherever we went we found birds; for the rich irrigated ranch attracted hordes of migrants among the land as well as water birds to feed on its insects, weed seeds and small mammals; and they were a particularly interesting assembly after weeks in a desert range. In one old weed field we came on a flock of perhaps two hundred lark buntings, migrants of the plains with their fall suits of brown. White-neckt rayens were common in small flocks, apparently gathering in from the deserts after the nesting time. Large mixt flocks of blackbirds, cowbirds, redwings, and yellowheads, were often found in the cottonwoods squawking, gurgling, and singing a regular marsh medley; and one morning thousands of yellowheads came with a loud noise of wings—a long black cloud—and stopt at the trees near the ranch house. As they lit in masses a great clattering broke out, each of the crowded throng apparently clamoring for standing room. When they were settled, the trees lookt as if laden down with black fruit. We slipt out to get a closer look at them and found long crowded lines on the barbed wire fences, and numbers on the ground in such close array they seemed in sore danger of treding on one another's toes. Near at hand their orange oval fronts and jet black plumage made them indeed a splendid sight, and when they started up we exclaimed with admiration, for their epaulets flasht out snow white on their black, velvety coats.

As we went back and forth thru the lanes to the prairie-dog town, tame young shrikes would sit calmly on the fence posts and let us pass, a cuckoo would sometimes fly swiftly out of a cottonwood hedge where it had been engaged in its favorit occupation, investigating caterpillar nests, flocks of redwings with glowing epaulets would circle around and disappear in a field of milo maize, the shrill pipe of an oriole would be followed by a yellow flash from a cottonwood, and a sweet blackbird chorus would come from a tree top. Occasionally a mockingbird would be seen along the lanes; but it was a striking fact that while the mockers abounded

on the mesquite plains they were rarely seen in the inhabited valleys. Perhaps they had learned better. A field of sugar cane along our road attracted flocks of migrating clay-colored sparrows who stared at us as they clung atilt of the cane stems or pickt up seeds without observing us. Dainty little pileolated warblers with golden front and bright green back would dart out of their cover and flit past us into a most inappropriately commonplace cornfield.

In the prairie-dog town on the ranch the small brown owls that lived in the old dog holes were always amusing. The twenty-acre field which held by actual count one thousand and nine prairie-dog burrows had probably several families of the owls, for altho we never saw many in any one field at the same time, the ejected pellets were numerous around the deserted burrows. Curiously enough these black bullet-shaped pellets were made largely of the big green beetles which we found on the plum trees of the orchard. At sight of us the prairie-dogs would scud away to their mounds, turning around inside and coming up to peek and bark at us over the edge again, while the owls would watch us with big, fixt eyes as we appeared, and if we came too near rise lightly on their wings, fly a few rods, and with strait-hanging legs drop to earth again.

Tho the prairie-dogs were doing great damage to the alfalfa, they were most interesting little animals. They found us interesting too, apparently, as they would stand and bark at us just as long as they dared. It was a pretty sight to see a mother dog looking over the crater-like rim of the hole with her yellow puppies beside her. If we approacht they would drop down the hole, but if we went the other way, they would sometimes scatter and go loping about the town. Holes dug out by badgers told of the tragedies of a dog town.

"Prairie-dogs are pretty good prospectors and sometimes bring up pay dirt," the mammalogist remarkt reminiscently one day, and then went on to tell how in a coal country where the surface was light colored they had brought up coal till "every heap was as black as ink!"

As we were walking along the edge of the dog town at one time the loud screaming note of a willet called our attention to one of the big gray birds standing by an irrigation pond in the adjoining alfalfa field. He jerkt his head back and forth as he watcht us, and then took wing, changing on the instant from an ordinary speckled gray bird to a black and white creature of striking pattern. On the edge of the irrigated tract a road-runner would sometimes be seen crossing the field, his head and tail on a level, his long legs carrying him as smoothly as if he had been on rollers. One that was shot proved his good offises to ranchmen by the contents of his stomach, for it held in addition to a garter snake and a long centiped, remains of a caterpillar, a cricket, some beetles, and a supply of big grasshoppers.

A marsh in what was known as Cassey's draw had been so flooded by the rains that none of the small mammals which should have been there were to be found, but a variety of swallows were weaving back and forth above it, and we flusht two night herons from the cat-tails, while a great blue heron rose and flew slowly away down the draw. As we waded thru the high grass a sora rail buzzed into the air, staying just long enough for us to note his plump little body and short bill before he ended his short parabola out of sight in the grass. Another time we flusht a jack snipe from a weed-grown lane. With an explosive zeep, zeep, zeep, it whizzed off, coming down in a spot of brown ground which it matcht so well that we had to walk up nearer before we could separate the long bill from the brown ball. Game birds were very scarce, except for a family of scaled quail which lived about the ranch and were evidently not lookt upon as game birds, for their favorit perch was the brush-wood pile in the back yard. They seemed oddly out of place because they were acting the part of domestic fowl, and because, in this assembly of birds from well-watered lands, they really belonged to this desert region.